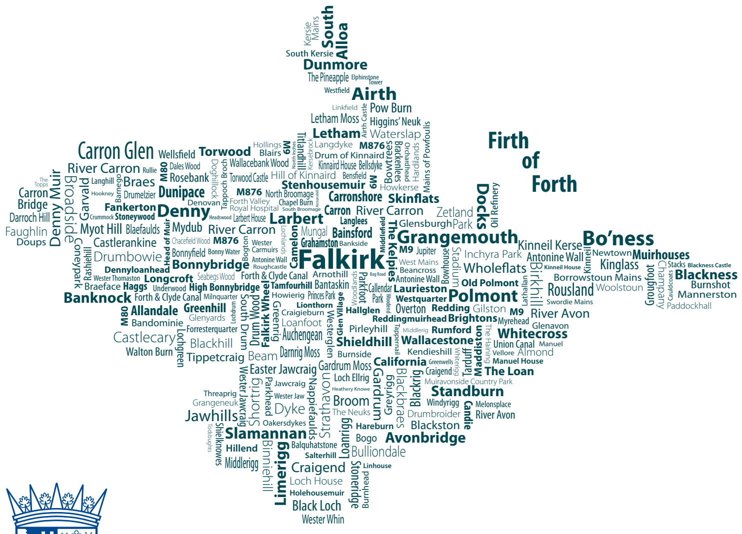
Local Nature Conservation and Geodiversity Sites

Supplementary Guidance SG08

November 2020

SG08



Falkirk Council

Supplementary Guidance

A suite of 14 supplementary guidance notes (SG's) is currently being produced by the Council in conjunction with LDP2. The number of SGs is reducing from seventeen to fourteen, as three of the adopted SGs are being consolidated to provide a more comprehensive and integrated approach to guidance. The SGs seek to provide more detailed guidance on how particular local development plan policies should be applied in practice.

These SGs form a statutory supplement to LDP2, and are intended to expand upon planning policies and proposals contained in the proposed plan.

A full list of the supplementary guidance in this series is found below.

- SG01 Development in the Countryside
- SG02 Neighbourhood Design
- SG03 Residential Extension and Alterations
- SG04 Shopfronts
- SG05 Green Infrastructure and New Development
- SG06 Affordable Housing
- SG07 Biodiversity and Development
- **SG08 Local Nature Conservation and Geodiversity Sites**
- SG09 Landscape Character Assessment and Landscape Designations
- SG10 Trees and Development
- SG11 Frontiers of the Roman Empire (Antonine Wall) World Heritage Sites
- SG12 Listed Buildings and Unlisted Properties in Conservations Areas
- SG13 Developer Contributions
- SG14 Renewable and Low Carbon Energy

Local Nature Conservation and Geodiversity Sites

1. Falkirk Council's Local Nature Conservation Sites

What are Local Nature Conservation Sites?

1.1 Local Nature Conservation Sites (LNCS) are sites which are given a non-statutory designation by local authorities in order to recognise and protect their local importance for natural heritage. The sites are selected primarily for their biodiversity or geodiversity value. A Local Nature Conservation Sites system can include a number of different site designations or names. Different site designations or names are used to distinguish sites with different types of locally important features.

Biodiversity =
the variety of all living things, including all plants, animals, habitats and ecosystems.

Geodiversity =
the variety of rocks, minerals, fossils, landforms, sediments and soils, together with the natural processes which form and alter them.

1.2 The main purpose of Local Nature Conservation Sites is to highlight to landowners, land managers, planners and developers where there are natural features of local importance which should be protected. As well as identifying locally important sites that require protection the system also helps to highlight key areas for environmental management and enhancement. Protecting a suite of important Local Nature Conservation Sites safeguards a vital reservoir of locally important biodiversity and geodiversity. These sites then provide a framework around which wider environmental conservation or habitat network creation can take place.

1.3 Many Local Nature Conservation Sites, as well as having intrinsic ecological or geological value, provide us with wider benefits. They may deliver ecosystem services such as carbon storage, natural flood management or supporting important pollinators. They can also contribute to our well-being and quality of life, providing opportunities for outdoor activity, exploration and enjoyment."

Falkirk Council's Local Nature Conservation Sites

1.4 Falkirk Council operates a suite of three Local Nature Conservation Site designations. These are:

- Wildlife Sites;
- Sites of Importance for Nature Conservation (SINCs);
- Geodiversity Sites.

Wildlife Sites

1.5 A wildlife site is a site identified and demonstrated to be of ecological importance in the local context. It may consist of semi-natural habitat types, or be principally artificial habitats which have assumed an importance for local wildlife. The site may also have amenity and/or educational value, but these social factors are not key to its designation.

Wildlife Site designation aims to:

- Protect ecologically important sites from damaging development, through the planning process;
- Highlight the value of sites to site owners and managers, and encourage appropriate management; and
- Focus opportunities for appropriate management and enhancement towards key sites.

Sites of Importance for Nature Conservation

1.6 A Site of Importance for Nature Conservation (SINC) is a site identified and demonstrated to be of local importance due to its ecological value in association with its community, amenity and/or educational value. It may consist of semi-natural habitat types, or be principally artificial habitats which have assumed an importance for local wildlife. Community, amenity or educational value is demonstrated by features such as levels of informal use of the site, community or school involvement in the site, or use of the site for outdoor learning.

SINC designation aims to:

- Protect ecologically valuable sites which contribute to the quality of the local environment and provide opportunities for local people to find out about, enjoy and get involved in their local biodiversity;
- Highlight the value of sites to site owners and managers, and encourage appropriate management; and
- Focus opportunities for appropriate management, enhancement and community engagement towards key sites.

1.7 Wildlife Sites are designated because they are of high local ecological importance and meet specific ecological criteria. SINCs do not reach the same level of ecological importance, although they must exhibit some local ecological value. SINCs are designated because, despite having slightly lower ecological value, they also provide valuable opportunities for discovering, enjoying or learning about natural heritage and contribute to local well-being and quality of life.

Geodiversity Sites

1.8 A geodiversity site is a site identified and demonstrated to be of local geological or geomorphological importance. They represent good examples of local geodiversity features and provide opportunities for people to learn about, enjoy and understand the importance of earth heritage.

Geodiversity Site designation aims to:

- Protect locally and regionally important examples of geodiversity features, particularly those which provide opportunities for people to enjoy and find out more about earth heritage;
- Highlight the value of sites to site owners and managers, and encourage appropriate management and interpretation; and
- Focus opportunities for appropriate management, enhancement, interpretation and educational use towards key sites.

Policy Context

1.9 Local Nature Conservation Sites have a well recognised place in the history of nature conservation in Scotland, complementing a range of statutory designations and recognising locally important features and issues.

1.10 During the passage of the Nature Conservation (Scotland) Bill through parliament in 2004, ministers recognised the continued relevance and importance of local nature conservation sites. Guidance was subsequently produced to help local authorities across Scotland to implement locally designated sites systems. That guidance has informed this document.

1.11 Scottish Planning Policy (2014) states:
"…. locally designated areas and sites should be identified and afforded the appropriate level of protection in development plans. Reasons for local designation should be clearly explained and their function and continuing relevance considered when preparing plans.…

…. local nature conservation sites should seek to accommodate the following factors:

- Species diversity, species or habitat rarity, naturalness and extent of habitat;
- Contribution to national and local biodiversity objectives;
- Potential contribution to the protection or enhancement of connectivity between habitats or the development of green networks; and
- Potential to facilitate enjoyment and understanding of natural heritage.

Local nature conservation sites designated for their geodiversity should be selected for their value for scientific study and education, their historical significance and cultural and aesthetic value, and for their potential to promote public awareness and enjoyment."

1.12 The Falkirk Council Local Development Plan 2 (2020) states:
"Biodiversity is the variety of life that exists on earth. Public bodies have a duty under the Nature Conservation (Scotland) Act 2004 to further the conservation of biodiversity. An important part of this is the safeguarding of identified sites, habitats and species which are protected under national legislation, and international obligations such as the Habitats and Bird Directives. In addition, the Falkirk area has a system of non-statutory local nature conservation sites…."

1.13 To effectively conserve and enhance our biodiversity, it is essential to go beyond individual sites and create habitat networks through which species can move and in which they can thrive. Such networks tend to be more robust than individual sites, with the capacity to support a greater variety and number of species. The creation and enhancement of a green and blue network is promoted within Falkirk Council's Local Development Plan 2 (Policy PE13) and the Falkirk Greenspace Strategy. Local Nature Conservation Sites protect a crucial reservoir of ecologically rich habitat around which wider environmental conservation programmes and habitat network creation can be focused.

PE19 Biodiversity and Geodiversity

The Council will protect and enhance habitats and species of importance, and will promote biodiversity and geodiversity through the planning process. Accordingly:

1. Development likely to have a significant effect on Natura* 2000 sites (including Special Protection Areas, Special Areas of Conservation, and Ramsar Sites) will be subject to an appropriate assessment. Qualifying interests of a Natura 2000 site may not be confined to the boundary of a designated site. Where an assessment is unable to conclude that a development will not adversely affect the integrity of the site, development will only be permitted where there are no alternative solutions, and there are imperative reasons of overriding public interest. These can be of a social or economic nature except where the site has been designated for a European priority habitat or species. Consent can only be issued in such cases where the reasons for overriding public interest relate to human health, public safety, beneficial consequences of primary importance for the environment or other reasons subject to the opinion of the European Commission (via Scottish Ministers);
2. Development affecting Sites of Special Scientific Interest will not be permitted unless it can be demonstrated that the overall objectives of the designation and the overall integrity of the designated area would not be compromised, or any adverse effects are clearly outweighed by social or economic benefits of national importance;
3. Development likely to have an adverse effect on European protected species; a species listed in Schedules 5, 5A, and 8 of the Wildlife and Countryside Act 1981 (as amended); or badgers as per section 10 of the Protection of Badgers Act 1992, will only be permitted where the applicant can demonstrate that a species licence is likely to be granted;
4. Development affecting Local Nature Reserves, Wildlife Sites, Sites of Importance for Nature Conservation and Geodiversity Sites (as identified on the Proposals Map and in Supplementary Guidance SG08 'Local Nature Conservation and Geodiversity Sites'), and national and local priority habitats and species (as identified in the Falkirk Local Biodiversity Action Plan) will not be permitted unless it can be demonstrated that the overall integrity of the site, local habitat or local species population will not be compromised, or any adverse effects are clearly outweighed by social or economic benefits of substantial local importance;
5. Where development is to be approved which could adversely affect any site, habitat or species of significant local nature conservation value, the Council will require appropriate mitigating measures to conserve and secure future management of the relevant natural heritage interest. Where habitat loss or fragmentation is unavoidable, the creation of replacement habitat to compensate for any negative impacts will be required, along with provision for its future management. Where adverse impacts on locally important species are unavoidable, measures to protect and enhance the wider local population of that species will be required; and
6. All development proposals should conform to Supplementary Guidance SG07 'Biodiversity and Development'.

* Following confirmation of the UK's exit from the EU, sites designated under the Habitats Regulations will no longer form part of the formal Natura network of sites. As these sites will continue to form part of a Europe-wide network of designated sites they will in future be referred to as "European sites".

2. Assessment and Designation of Wildlife Sites and SINCs

2.1 The following is a summary of the procedure for assessing and designating Wildlife Sites and SINCs. Further details about this process are provided in "A technical guide to the assessment and designation of Wildlife Sites and Sites of Importance for Nature Conservation".

2.2 Falkirk Council has responsibility for establishing and managing the Local Nature Conservation Sites system. Wildlife Site and SINC identification, assessment and review is undertaken by Falkirk Council but may also be informed by input from other appropriate experts and nature conservation organisations.

Key steps in the site assessment and designation process are:

- Identify a potential site;
- Gather sufficient ecological data for the site;
- Assess the site against set criteria;
- Designate the site if it meets the required criteria;
- Prepare and publish a Site Statement.

Identification of Potential Sites

2.3 Potential Wildlife Sites and SINCs may be identified at any time, and may come to light as a result of:

- Area wide surveys;
- Ad hoc site surveys (e.g. as part of a planning application);
- On the ground identification by appropriately experienced professionals (biodiversity officer, rangers, ecological surveyors, etc.) ; or
- Advice from members of the public followed up by a visit from an appropriately qualified professional.

Identification of a potential site is made where a visual inspection or other data provides a high expectation that the site will meet Wildlife Site or SINC standards.

Owners of potential Wildlife Sites or SINCs (where known) will be notified that their site has been identified as a 'potential site' and the implications of this identification.

Potential sites are surveyed and assessed as soon as resources allow. While awaiting survey, assessment and (if it meets the relevant criteria) designation, potential sites are afforded the same protection as designated Wildlife Sites or SINCs.

Ecological Data

2.4 The minimum data required to assess a potential site is:

- A phase I habitat survey with target notes and species list;
- Details of site extent and the approximate area of each habitat type present;
- A nature conservation summary;
- A boundary map of the proposed designated site.

In addition, any other available and relevant ecological site data will also be used to inform the assessment process (e.g. fauna surveys, historical maps etc.).

Site Assessment

2.5 Site assessments are undertaken by a suitably qualified assessor (e.g. the Council's biodiversity officer or countryside ranger). They may also be informed by input from individuals with relevant interests and expertise such as:

- Council officers from both planning and environmental teams;
- Local environmental experts;
- Representatives from relevant conservation organisations;
- Representatives from statutory environmental bodies

The importance of each potential site is assessed against set criteria and a formal record of the assessment made. A score is given for each criteria, providing a simple measure of relative quality. The overall score indicates whether a site should be designated or not.

Potential sites are assessed against the following criteria.

Ecological Criteria:

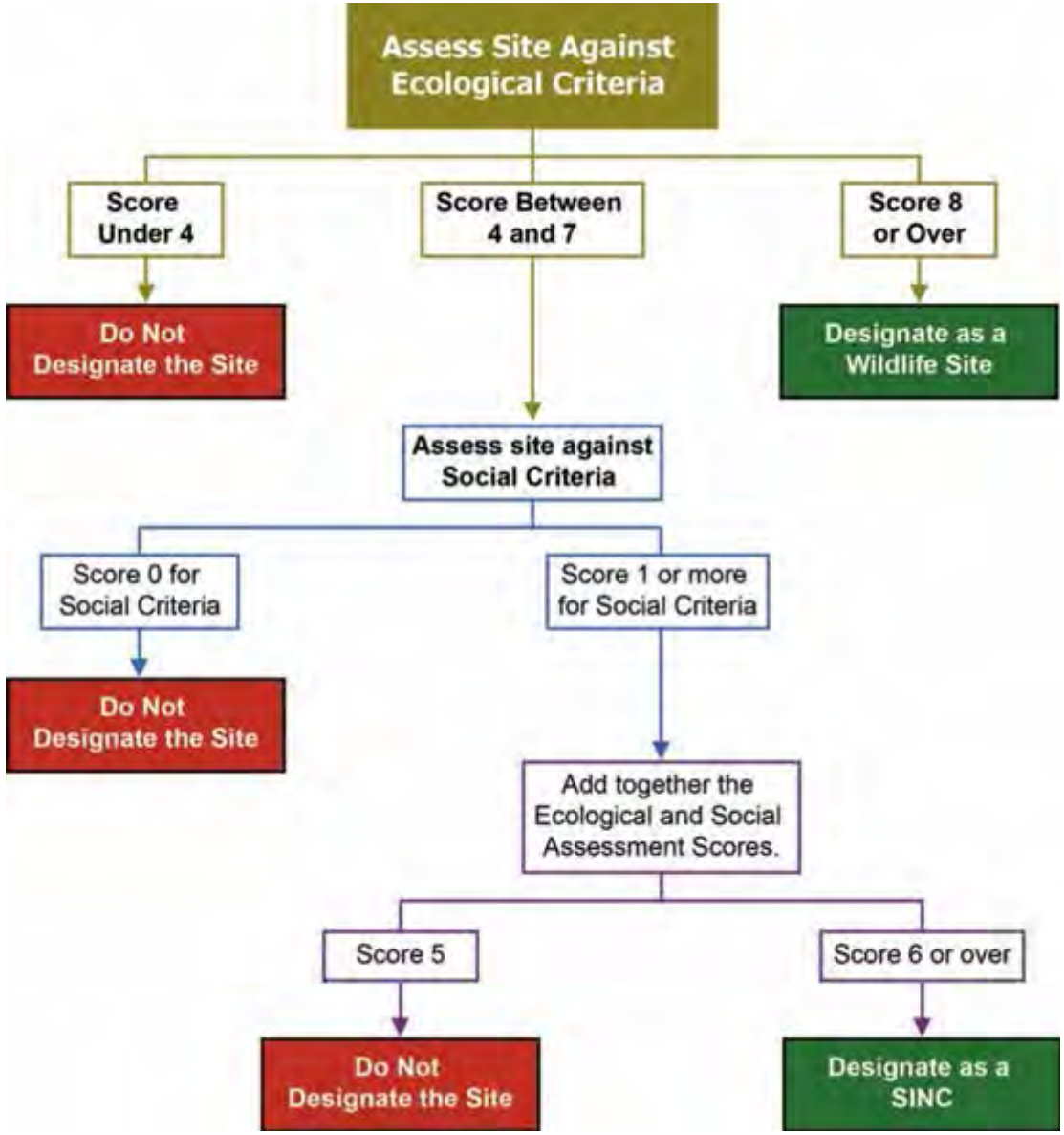
- Habitat Diversity;
- Habitat Rarity;
- Species Diversity;
- Species Rarity;
- Naturalness;
- Extent;
- Connectivity;
- Important Biodiversity Features.

Social Criteria:

- Amenity/Community Value;
- Educational Value.

The following flow chart outlines the site assessment process for Wildlife Sites and SINCs.

Initially only the ecological criteria are considered, to determine whether a site should be designated a Wildlife Site. If a site does not meet the Wildlife Site threshold but does reach a set minimum ecological value it can go on to be assessed for SINC designation. This assessment takes into consideration social criteria as well as ecological criteria.



Site Designation

2.6 Once assessed as meeting the criteria for designation, a site becomes formally designated by virtue of its inclusion in Falkirk Council's Local Development Plan. The Local Development Plan undergoes a programme of broad stakeholder and public consultation and this provides a mechanism for consultation on the proposed Wildlife Sites and SINCs.

In rare cases it may be necessary to designate (or de-designate) a Wildlife Site or SINC outwith the Local Development Plan process (for example, where a rapid assessment and designation is required to protect a site and the timescale for production of the next Local Development Plan is too long). In such cases the following designation procedure is followed:

- The landowner, if known, is notified of the proposed site designation;
- The proposal to designate the site is published on the Council's website;
- There is a public consultation period of 6 weeks;
- The designation will take effect from the end of the consultation period (unless consultation responses necessitate a reassessment of the site);
- The site is then added to an up to date list of designated sites held by Falkirk Council's Development Services.

Sites designated in this way are included in the next available Local Development Plan.

Public consultation offers the opportunity to comment on a proposed site designation, however it should be noted that a proposal to designate a site will only be reconsidered where either:

- There are grounds to indicate that the assessment of the site against one or more of the set criteria is unjustified or inaccurate; or
- Changes to the site or new data may result in a different assessment result.

3. Assessment and Designation of Geodiversity Sites

3.1 The following is a summary of the procedure for assessing and designating Geodiversity Sites. Further details about this process are provided in "A technical guide to the assessment and designation of Geodiversity Sites", 2016, Falkirk Council.

3.2 Falkirk Council has responsibility for establishing and managing the Local Nature Conservation Sites system. Geodiversity Site identification, assessment and review are undertaken by Falkirk Council but may also be informed by input from other appropriate experts and geological conservation organisations.

Key steps in the site assessment and designation process are:

- Identify a potential site;
- Gather sufficient geological and geomorphological data for the site;
- Assess the site against agreed criteria;
- Designate the site if it meets the required criteria;
- Prepare and publish a Site Statement.

Identification of Potential Sites

3.3 Potential Geodiversity Sites may be identified at any time, and may come to light as a result of:

- Area wide surveys;
- Ad hoc site surveys (e.g. as part of a planning application);
- On the ground identification by appropriately experienced professionals (rangers, geological surveyors, etc.); or;
- Advice from members of the public followed up by a visit from an appropriately qualified professional.

Geological Data Required

3.4 The minimum data required to assess a potential Geodiversity Site is:

- A completed Potential Geodiversity Site survey form;
- Details of site extent and the approximate area and nature of each geodiversity feature present;
- A summary of the site's geodiversity value;
- A boundary map of the proposed designated site.

In addition, any other available and relevant geological or geomorphological data for the site, as well as information relating to the sites history and past use, is also used to inform the assessment process.

Site Assessment

3.5 Site assessments are undertaken by a suitably qualified assessor. They may also be informed by input from other individuals with relevant interests and expertise such as:

- Council officers from both planning and environmental teams;
- Local geodiversity experts;
- Representatives from relevant conservation or geodiversity organisations;
- Representatives from statutory environmental bodies.

The importance of each potential site is assessed against set criteria and a formal record of the assessment made. An appropriate score is awarded to the site for each criterion (on a scale of 0 to 10). While there is no set score above which a site is designated, the scores awarded against each criterion allow for a comparison of local sites and their relative value, thus informing the decision whether or not to designate a site.

Potential sites are assessed against the following criteria:

- Geodiversity value;
- Education & research value;
- Cultural and/or historical value;
- Accessibility.

Site Designation

3.6 Once assessed as meeting the criteria for designation, a site becomes formally designated by virtue of its inclusion in Falkirk Council's Local Development Plan. The Local Development Plan undergoes a programme of broad stakeholder and public consultation and this provides a mechanism for consultation on any proposed Geodiversity Site.

Public consultation offers the opportunity to comment on a proposed site designation, however it should be noted that a proposal to designate a site will only be reassessed where either:

- There are grounds to indicate that the assessment of the site against one or more of the set criteria is unjustified or inaccurate; or
- Changes to the site or new data may result in a different assessment result.

Site Statement

4.1 For each designated Wildlife Site, Site of Importance for Nature Conservation or Geodiversity Site a Site Statement is prepared. This statement includes the following:

- Site name, designation, location and extent;
- Boundary map;
- Key features summary;
- Site description;
- Nature conservation summary;
- Conservation and enhancement opportunities.

Note: published site statements may omit sensitive species data (for example the presence of badger setts) to protect against persecution.

Landowner Communication

4.2 Landowners and/or occupiers (where known) will be informed of the designation status of their site and of any subsequent changes to the designation status resulting from periodic monitoring and review.

For each designated site the landowner and/or occupier (where known) will be provided with a copy of the Site Statement. In addition they may also request copies of other data relating to the site such as site surveys or management plans.

Data Management

4.3 Ecological or geological data, site maps, the site assessment, site reviews, and site statements will be held and updated by Falkirk Council. This information will be available to members of the public upon request, although some reports or sections of reports may remain confidential to protect personal information or sensitive protected species data.

Where data is collected for a site which is subsequently assessed as not warranting designation, that data may be retained to facilitate reassessment in the future or inform other conservation work.

Monitoring and Review

4.4 The condition and nature of designated sites may change over time. A programme of site monitoring is in place to highlight any significant changes to a site and to inform future management requirements and opportunities.

A rolling programme of monitoring aims to check each site at least once every 10 years. However, where a site is at particular risk of significant change or is known to have experienced significant change (whether positive or negative) an earlier monitoring visit may be deemed appropriate.

A monitoring visit will identify:

- Any significant ecological or geological changes to the site since the last visit;
- Any significant changes in amenity and educational access or use;
- Any new management issues.

A site designation will only be reviewed if monitoring visits highlight significant changes which may impact on the designation of the site. Otherwise the site designation will continue unchanged.

Where resources are available additional surveys may be undertaken at specific sites, guided by recommendations within the site statement.

Site owners/occupiers (where known) will be notified of any change in the designation status of their site following monitoring and/or review.

Site Protection

5.1 Local Nature Conservation Sites are not protected by legislation. However, they are afforded protection from damaging development through the planning process, guided by the Local Development Plan.

In addition the presence of a Local Nature Conservation Site may be considered by other organisations when making decisions which would affect the management or land use of the site. Falkirk Council encourages other organisations to take full account of Local Nature Conservation Sites within their decision making.

Site Management and Enhancement

5.2 While some Local Nature Conservation Sites require little or no active management to maintain their conservation value, others require on-going, active management.

It is acknowledged that Local Nature Conservation Sites may support a variety of land-uses, including recreation, agriculture, forestry and mineral extraction. Such uses often pre-date the sites designation as a Local Nature Conservation Site (sometimes by many hundreds of years) and may even have played a part in the development of the site as ecologically or geologically rich. It is important that, wherever possible, recommendations for conservation management and enhancement take full account of other existing land uses.

For each designated site the Site Statement aims to provide a brief summary of desirable conservation outcomes and recommended conservation management. These are updated at the same time as site monitoring is undertaken. In some cases, as well as conservation management, it may be appropriate to encourage sensitive recreational or educational use of a site. A number of sites have detailed management plans produced for them.

Positive conservation management of designated sites is promoted in various ways including:

- Informing site owners/managers of a site's designation and highlighting management recommendations in the site statement;
- Providing site owners/managers with other information about specific conservation management techniques or sources of further information;
- Advising site owners/managers of management schemes or conservation projects which might benefit their site;
- Passing on information about potential sources of funding to relevant site owners/managers.

In some instances designation of a site may help in securing grant funding for appropriate conservation management or enhancement work.

Development and Local Nature Conservation Sites

5.3 The Falkirk Council Local Development Plan states that development affecting Wildlife Sites, Sites of Importance for Nature Conservation and Geodiversity Sites will not be permitted unless it can be demonstrated that the overall integrity of the site will not be compromised, or any adverse effects are clearly outweighed by social or economic benefits of substantial local importance.

Development proposals on or near to a Local Nature Conservation Site must carefully assess their likely impact on the site and its features of interest. This assessment should be based on appropriate and up to date ecological or geological survey data.

Where, in exceptional cases, development affecting a Local Nature Conservation Site is granted, protection of key elements of the site will be required. In such instances it will be essential for the developer to:

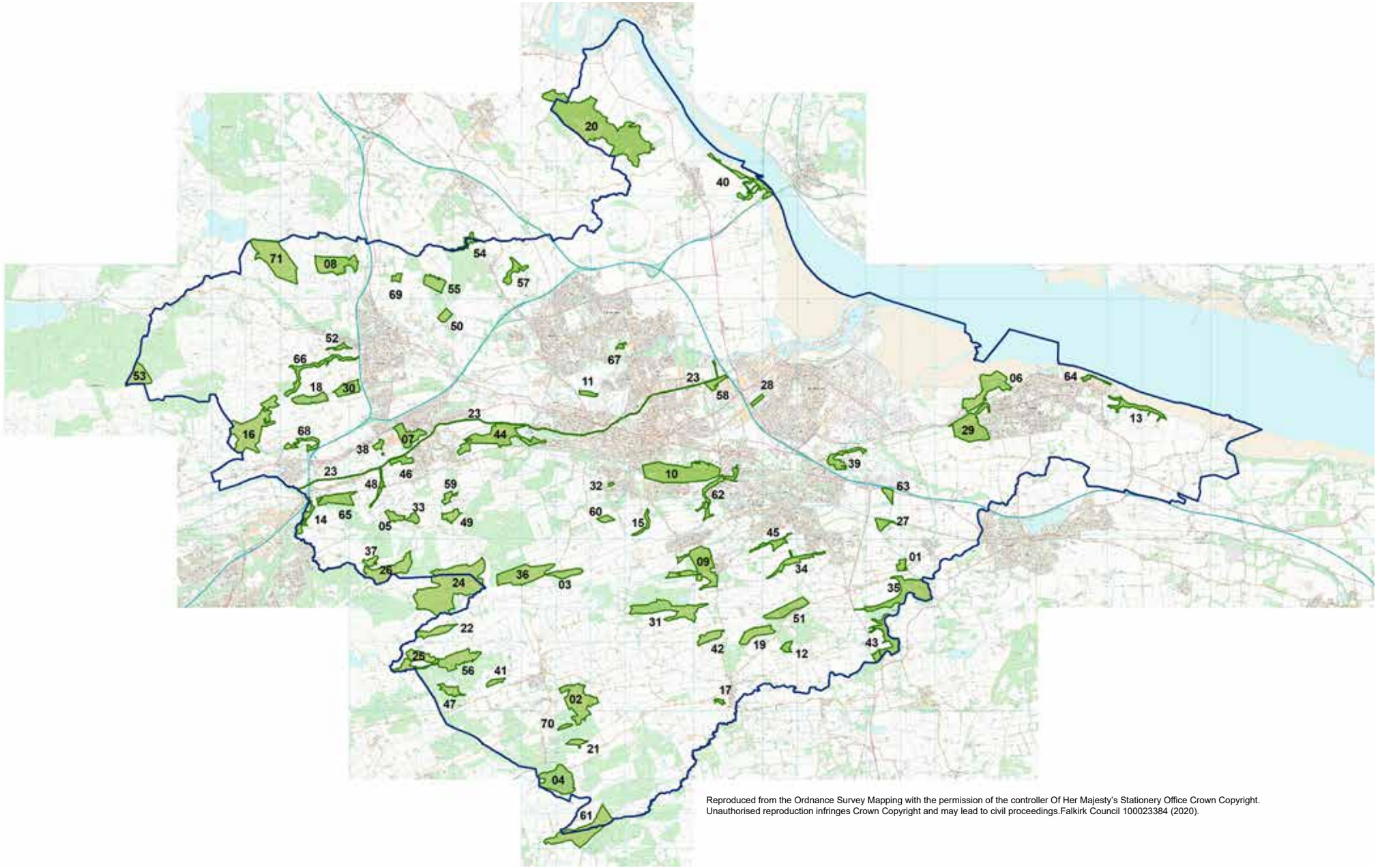
- Identify the likely impacts on the Local Nature Conservation Site;
- Identify ways of minimising negative impacts;
- Protect as much of the site as possible;
- Enhance the ecological value of the remaining site or features;
- Provide compensatory biodiversity creation or enhancement where negative impacts on key biodiversity features cannot be avoided;
- Ensure the long term value of the site by appropriate management.

Further advice on considering biodiversity within the development process is available in Supplementary Guidance note "SG05: Biodiversity and Development".

Early discussions with Falkirk Council's Development Management officers is always recommended to determine under what circumstances, if any, development affecting a Local Nature Conservation Site might be acceptable. Discussions can also determine the ecological or geological data and assessment likely to be required with a planning application.

List of Wildlife Sites

Map of All Wildlife Sites



01. Almond Bing

Grid Ref. NS 96039 76235

Area 7.1 Hectares

Key Features

Habitat (s)	Semi-natural broadleaved woodland Neutral grassland/bare ground mosaic.
Species	Helleborine orchid populations Brownfield plant communities Bryophytes Bluebell, Wych Elm.
Connectivity	Part of an extensive habitat network Linked to the canal and Muiravonside Country Park.
Community	Recreational access Volunteer involvement in habitat management and orchid monitoring.

Description

Almond Bing consists of a steep sided, flat-topped bing and adjacent lower surrounding land.

It is bounded by a road to the north, the canal to the east and agricultural fields to the south and west.

The site is mainly closed canopy birch woodland, with more open canopy woodland on top of the bing.

Here the woodland occurs over a mosaic of bare ground and bryophyte-rich unimproved neutral grassland.

There are also small areas of unimproved neutral grassland associated with the path running along the top of the bing.

Nature Conservation Summary

Almond Bing has a significant area of regenerating semi-natural birch woodland.

The mosaic of open canopy woodland, bare ground and neutral grassland at the top of the bing is of particular nature conservation value.

A number of LBAP species occur at the site including bluebell and wych elm.

140 plant species have been recorded from the site, including the locally scarce common centaury and 8 ancient woodland indicator species.

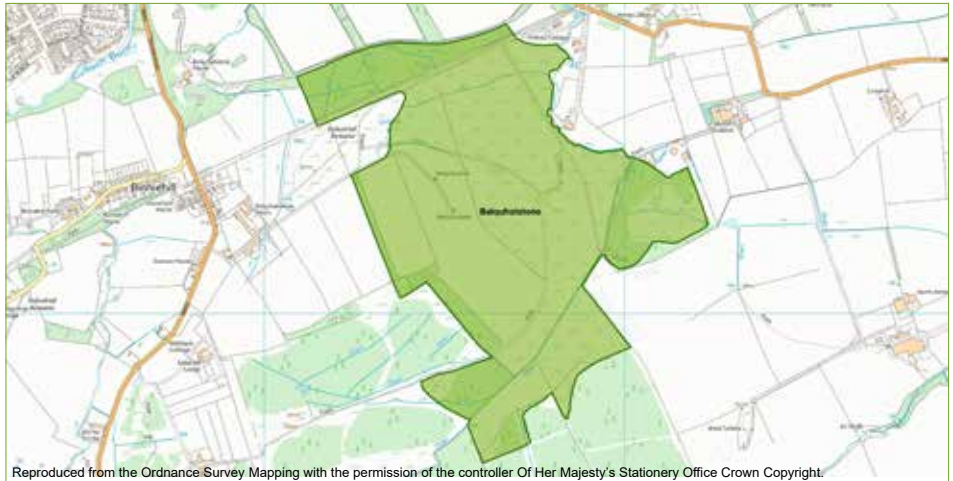
Of particular note is the population of Helleborine orchids which include a range of species tending towards the very rare Young's Helleborine variant.

The site forms part of an extensive habitat network including the adjacent canal and Muiravonside Country park.

Conservation and Enhancement Opportunities

- Monitor orchid populations and manage as necessary;
- Maintain volunteer involvement in site monitoring;
- Ensure use and development of the canal basin does not have a detrimental impact on the wildlife site;
- Undertake woodland, scrub and grassland management as necessary to maintain the interest of the site;
- Maintain and manage the brownfield habitat at the top of the bing;
- Consider opportunities for site interpretation.

02. Balquhatstone



Grid Ref. NS 86645 72282

Area 63.4 Hectares

Key Features

Habitat (s)

Raised and modified bog, swamp, mire, marshy grassland, unimproved and semi-improved acidic grassland, semi-improved neutral grassland.

Species

A diverse range of species are present by virtue of the varied habitats within the site.
A number of locally rare species occur and over 15 LBAP species are suspected to occur.

Connectivity

Largely isolated by more intensive surrounding land-uses.
In proximity to a series of bogs in the local area (e.g. Easter Drumclair).

Community

Little or no recreational or educational use evident.

Description

Situated on the Slamannan Plateau, Balquhatstone is an extensive site with a complex mosaic of habitats.

The centre of the site is dominated by a relic area of unimproved grassland with associated woodland strips and ponds.

To the north there is a mosaic of mire and grassland habitat edged by broadleaved and conifer woodland on the northern boundary.

A broad shallow valley to the south supports a complex mix of raised bog, mire, swamp, open water, marshy grassland, acidic and neutral grassland.

The surrounding landscape is more intensively managed agricultural land and forestry.

Nature Conservation Summary

This is an extensive site supporting a wide range of habitats, including nationally rare raised bog and locally rare mire and swamp habitats.

Due to the variety of different habitats the site has a high species diversity . It also supports a number of locally rare species and is likely to support a wide range of LBAP species. The lagg mire habitat has a particularly good range of species, including rarities.

This is an important site in its own right, but also in terms of its juxtaposition with other such bogs in the immediately vicinity and other such sites throughout the Slamannan Plateau.

Drainage of mire habitats, tree planting and a lack of grazing may be impacting on the species diversity and habitat quality at this site.

Conservation and Enhancement Opportunities

- Grassland management;
- Bog enhancement may be possible with drain blocking and scrub removal;
- Protection of wetlands and grasslands from further tree planting.

03. Barleyside

Grid Ref. NS 86290 76003

Area 15.9 Hectares

Key Features

Habitat (s)	Raised bog Wet modified bog Basin mire Wet dwarf shrub heath.
Species	Several sphagnum species characteristic of raised bogs are present in parts of the site.
Connectivity	The site is close to Darnrig Moss SSSI and Newcraig Wildlife Site.
Community	No evidence of public access or use of the site.

Description

Barleyside is a large area of degraded raised bog habitat.

In the western half, although drained, primary bog habitat still remains. The central area of the bog is wettest overall, with peat-forming mosses Sphagnum papillosum and magellanicum present.

In the western section Sphagnum species are mainly restricted to the old drainage ditches. To the east the site is subject to fairly heavy grazing.

The bog has fairly broad lagg fen margins and marshy grassland habitat around the perimeter. The surrounding land is improved pasture and a fairly recent conifer plantation to the south.

The drains on site are not maintained which may be resulting in gradual improvement of the bog habitat.

Nature Conservation Summary

The site represents a significant area of raised bog on deep peat. Although much of it is degraded as a result of grazing and drainage, primary bog habitat does remain in the western half. Raised bogs are a nationally rare habitat and as such are of high conservation importance.

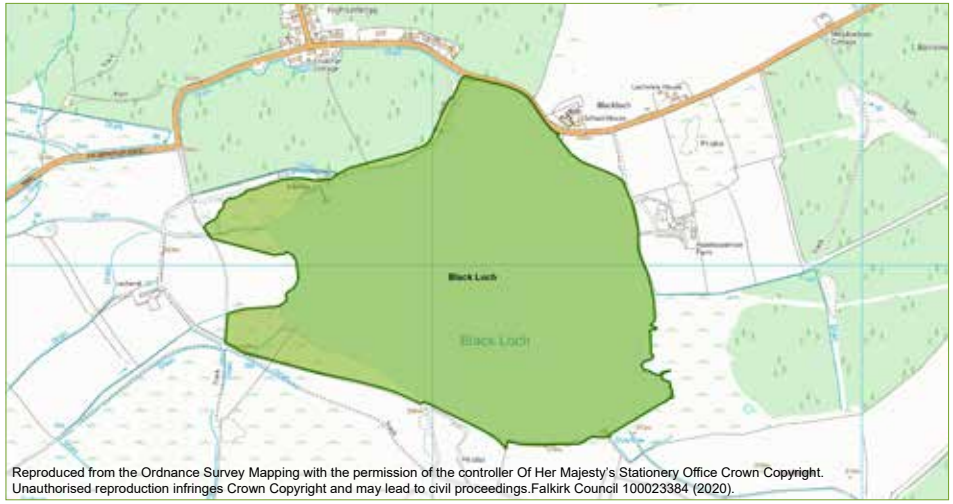
23 plant species, including heath spotted orchid and 7 sphagnum species, have been recorded on site.

This is one of an important network of raised bogs across the Slamannan Plateau.

Conservation and Enhancement Opportunities

- Ditch blocking to increase the water level within the bog;
- Reduced grazing pressure (a grazing management plan);
- Birch scrub removal.

04. Black Loch



Grid Ref. NS 86056 69970

Area 56.7 Hectares

Key Features

Habitat (s)	Open water with some marginal vegetation Swamp, fen and relic bog habitat Dry and wet heath Semi-improved acid grassland.
Species	131 higher plant species and 15 bryophytes recorded 4 LBAP species present and at least 7 others likely.
Connectivity	Immediately adjacent to Black Loch Moss Special Area of Conservation. Narrow wildlife corridors along the inflow and outflow watercourses.
Community	Formal access routes around N, NE and NW sides. Recreational use of the loch.

Description

Black Loch is a large body of open water on a fairly exposed level plateau. The loch has short, sheer edges and the margins are generally shallow with sandy, stony substrate.

Surrounding land use includes semi- to highly improved pasture and forestry, as well as areas of semi-natural bog, fen, swamp and heath vegetation.

There are some narrow fringes of emergent or marsh vegetation around the loch edge but these are restricted due to the short, steep sides.

The loch is used for recreational purposes and paths extend around its northern half.

Nature Conservation Summary

The site supports a wide range of habitats, although other than the open water they are generally small in extent. Localised areas, particularly at the main inflows, are notable for their habitat quality.

The area of fen and swamp associated with the western in-flow is of particular note. Rich fen and bog habitats are of high ecological value.

The site supports a fairly good species diversity, although none of particular rarity. 131 higher plant and 15 bryophyte species have been recorded.

4 LBAP species are known to occur on site and others are likely.

The loch itself appears to be oligotrophic and impoverished, although there is some marginal fen development. It has importance due to it being one of the few, and the largest, open water bodies in the area.

Conservation and Enhancement Opportunities

- Ensure that any further leisure related development does not have a negative impact on the loch and surrounding semi-natural habitats;
- Survey the extent and quality of the bog to the southeast for potential future inclusion in Wildlife Site boundary;
- Consider scope for some management of marginal habitats;
- Undertake an aquatic survey to assess the ecology and management needs of the loch itself.

05. Blackhill Moss

Grid Ref. NS 81309 77662

Area 10.2 Hectares

Key Features

Habitat (s)	Raised bog Basin mire Heath Broadleaved woodland and scrub.
Species	A good range of species associated with mire, including sundew.
Connectivity	Lochgreen mire is nearby and may be hydrologically linked.
Community	No evidence of recreational use.

Description

The site is a complex area of mires and heaths on undulating ground in a poorly drained depression. Habitats include wet heath (and dry heath on raised knolls), wet woodland, pond, scrub, raised bog and wetter mire vegetation.

The western half of the site supports dense scrub woodland, tall heath and bog vegetation. The eastern half supports the wetter mire habitat and some areas of dry heath towards the north-eastern edge.

The site itself is surrounded by highly improved agricultural pasture. Loch green moss, to the immediate east, may be hydrologically linked to Blackhill Moss and is of ecological interest.

Nature Conservation Summary

The site contains a rich variety of habitats including raised bog which is nationally rare and mire habitat which is locally rare. The rich mosaic of vegetation adds to the site's diversity.

The habitats are of note for supporting a good range of mire species. Key bog/mire indicator species such as Sphagnum magellanicum, cranberry and common and harestail cottongrass are present. The LBAP species round-leaved sundew, snipe and frog are present. Others are likely.

Despite a certain amount of enrichment and disturbance on the eastern edge, the site is a good example of a range of mire, bog and wet woodland habitats.

Conservation and Enhancement Opportunities

- Maintain the mires by removing encroaching scrub and saplings;
- Establish wet woodland in the SE corner of the site;
- Potential to restrict flow of water out of the mire to wet up habitats;
- Limit ground disturbance and enrichment of the mire habitats where possible.

06. Bo'ness Foreshore (aka Kinneil Foreshore)

Grid Ref. NS 98504 81359

Area 56 Hectares

Key Features

Habitat (s)	Unimproved neutral grassland Broadleaved woodland Scrub Saltmarsh and inter-tidal boulders.
Species	Significant species diversity with over 20 LBAP species likely to occur on site.
Connectivity	A large and central element of an extensive habitat corridor.
Community	Very good public access. Active community involvement. Some educational use.

Description

Bo'ness Foreshore is a large site located on the north-western edge of Bo'ness. It sits next to the internationally important Firth of Forth SPA.

The site is an area of reclaimed bing, old landfill and other waste ground. Restoration, landscaping, natural regeneration and succession have resulted in a variety of established habitats including unimproved neutral grassland, broadleaved woodland and scrub. The site also includes a fringe of inter-tidal habitats such as saltmarsh. The actual coast is formed by large boulders.

The site is highly valued by local people and well used by walkers. It is actively managed by a local community group and Falkirk Council.

Nature Conservation Summary

The site represents a large area of species-rich habitats, including extensive species-rich grassland. The grassland on the eastern slope of the bing dome is particularly diverse and supports a number of locally rare species. Habitat diversity is enhanced by the establishing woodland and dense and scattered scrub. Small areas of saltmarsh habitat, most occurring as fringes to the tidal channel, add local diversity.

The very high species diversity, easily exceeding 200 plant species, is of particular note. A number of locally rare species are present. A good range of saltmarsh species occur, Glasswort being of particular note. Invertebrate and bird interest is likely to be high and over 2 LBAP species probably occur.

The site is a large, central element of an extensive habitat corridor running along the Carriden and Bo'ness foreshore to the east and into the woodlands of Kinneil and Polmont to the west.

Conservation and Enhancement Opportunities

- Extend boundary to include the meadows to the south of the site;
- Restore the old landfill site to the west to benefit wildlife;
- Maintain an appropriate grassland management regime;
- Scarify or disturb areas to retain early successional habitats;
- Control scrub encroachment on grassland areas;
- Continue appropriate woodland management;
- Minimise disturbance on the island area;
- Promote appropriate recreational use.

07. Bonnyfield Quarry

Grid Ref. NS 81711 80019

Area 28.8 Hectares

Key Features

Habitat (s)	Unimproved neutral grassland Scrub Broadleaved woodland Ponds Fen & swamp.
Species	Over 200 plant species, including 8 local rarities.
Connectivity	An important site in the Bonny Water and Forth & Clyde Canal wildlife corridors.
Community	Used by school groups. Actively managed with involvement of a community management group. Good access, well used by walkers.

Description

A disused aggregate quarry immediately west of Bonnybridge, the site has naturally regenerated and now supports a wide range of habitats. These include, a significant area of neutral grassland, woodland and scrub, several ponds and scrapes and species-rich swamp. The site is well used by local people and schools and has a network of paths.

To the south the site is immediately adjacent to the Bonny Water. Neighbouring the site to the north and east is housing and playing fields.

To the west the land around the bonded warehouses provides a significant area of rough, open grassland. The site is linked to the wider countryside by wildlife corridors along the Bonny Water and Forth and Clyde canal.

Nature Conservation Summary

Bonnyfield Quarry is a large site with a diverse range of habitats. The extent of unimproved neutral grassland present is particularly notable.

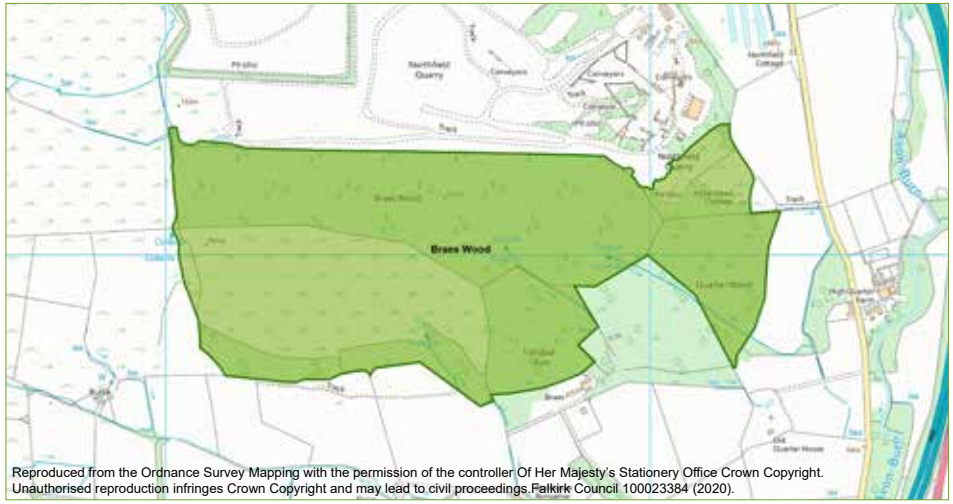
The site supports a high species diversity. Over 200 plant species have been recorded, including 8 local rarities. The site is of great value for breeding birds (39 bird species recorded) and invertebrates. It is also likely to be of value for a range of mammal and amphibian species.

The site is well connected to wider habitat networks.

Conservation and Enhancement Opportunities

- Control invasive plants, particularly along the Bonny Water;
- Control encroachment by scrub/saplings in grassland areas;
- Grassland cutting regime to maintain species-diversity;
- Occasional scarification/disturbance of areas to encourage early successional habitats and provide open ground;
- Allow woodland vegetation to develop and mature in places;
- Monitor ponds and undertake management if needed.

08. Braes Wood



Grid Ref. NS 79551 85028

Area 49.6 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Unimproved acid grassland Heath Marshy Grassland.
Species	195 plant species. 7 locally rare plants. Several LBAP species likely.
Connectivity	One of a series of extensive woodlands in the vicinity.
Community	Open access.

Description

This extensive site consists mainly of birch woodland (with some beech) surrounded by a mosaic of acid grassland, marshy grassland and heath. There are also areas of dense bracken and bracken encroachment into the grassland. Although originally planted, the birch woodland has been present for around 200 years and appears semi-natural in character.

The site is situated on a small outcrop of basaltic lava underlain with acid sandstone. The acid soils and rabbit/deer grazing contribute to the sparse ground flora beneath the woodland canopy. The underlying geology also influences the range of species present. The southwestern third of the site is grazed by livestock.

To the north of the site lies Boards Quarry which has increased in size since the site was first designated and is ' nibbling away' at the woodland edge. To the east, south and west the site is surrounded by agricultural land.

This is one of a series of extensive woodlands on the northern edge of the Falkirk Council area.

Nature Conservation Summary

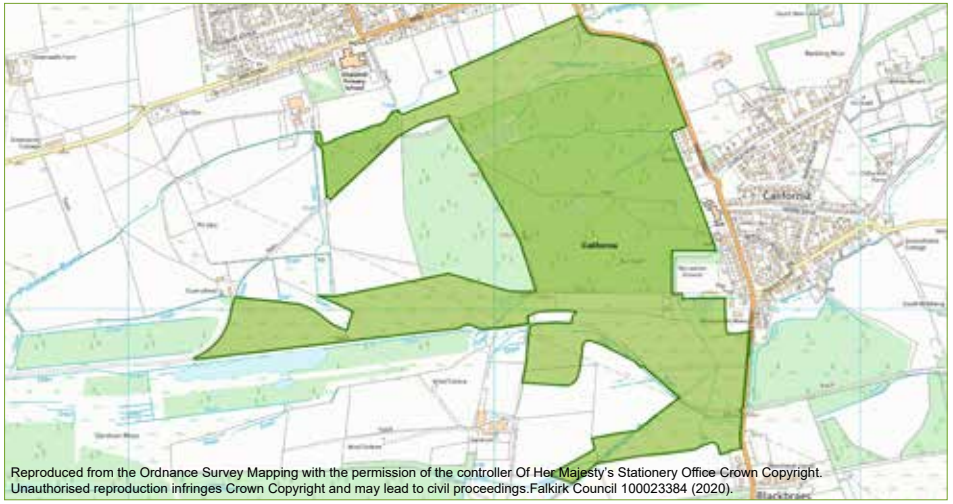
This is an extensive and very complex site with significant habitat diversity demonstrating a wide range of successional stages - 11 different habitat types have been recorded. Of these habitats the species-rich grassland, diverse mires, wet heath slope and broadleaved woodland stand out as of particular quality.

Species diversity in most of the habitat types is high, with over 195 plant species recorded. A number of locally rare species have been recorded including greater butterfly orchid, cowberry, heath milkwort, English stonecrop, round-leaved sundew, beech fern, oak fern and common polypody.

Conservation and Enhancement Opportunities

- Manage grazing in the SW third to reduce poaching of the grassland and allow woodland regeneration;
- Undertake further survey of the mire area;
- Prevent further encroachment by quarrying activities.

09. California



Grid Ref. NS 90176 76198

Area 68.6 Hectares

Key Features

Habitat (s)
- Mire
- Swamp
- Acidic grassland
- Recently planted broadleaved woodland
- Scrub
- Bog (wet modified)
- Open water.

Species
- Several notable and locally rare plant species.
- High species diversity.

Connectivity
- Links to peatland to the southwest. Linked to the wider area via habitat corridors along watercourses.

Community
- Formal and informal access routes across north half of site.

Description

This is an extensive site lying to the south of Shieldhill and west of California. Previous surveys have divided the area into two halves:

The northern half consists of acidic grassland recently over-planted with broadleaved woodland, marshy grassland, open water, mire and swamp associated with old pools. The areas of particular interest are generally associated with the pools, reservoirs and wetlands.

The southern half of the site is a mix of degraded peat vegetation with some artificial ponds and marshy grassland. While the western pool is an isolated low lying lagg area, the eastern pond is more open with developing areas of swamp vegetation.

The site is neighboured to the north and east by the villages of Shieldhill and California and to the south and west by agricultural land. To the south-west lies Gardrum Moss - a large raised bog degraded by peat cutting.

The north of the site has formal and informal access routes across it.

Nature Conservation Summary

The site exhibits higher than average species and habitat diversity. It supports a diverse mosaic of wetland, grassland and mire habitat. Recent tree planting, while superseding much of the previously extensive acid grassland, has avoided those areas highlighted as of most interest (particularly the pools and wetland areas). As such the site retains its high conservation value. In time the establishing woodland may add to the diversity and interest of the site. The mire and swamp habitats are locally rare.

The species diversity of the site is high, helped by the mixed wetlands and the mosaic of habitats to the north.Species of note include Knotted pearlwort, Fairy flax and marsh arrowgrass and the local rarities whorled caraway, tea-leaved willow and common mare's tail.

Conservation and Enhancement Opportunities

- Re-survey as woodland establishes to update site information and confirm continuing nature conservation value;
- Check continued presence of the LBAP priority species whorled caraway following tree planting works;
- Avoid any further damage from tipping and drainage;
- Avoid damage from inappropriate grazing regimes.

10. Callendar Wood and Lake

Grid Ref. NS 89616 78938

Area 105.5 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Conifer plantation woodland Scrub Unimproved neutral grassland Open water (eutrophic) Swamp.
Species	Bats. Wide range of bird species.
Connectivity	Part of a habitat network associated with Westquarter Burn and the Union Canal.
Community	Open public access and paths throughout. Very well used.

Description

The site is an extensive plantation woodland and large lake very close to the centre of Falkirk. The lake is situated within Callendar Park, with the woodland lying immediately south of the park.

While much of the woodland site is commercially managed conifer plantation, there is a significant proportion of broadleaved woodland which is semi-natural in character.

There is an area of grassland to the southwest of the site, known as Henry's Hill.

The site has an extensive network of paths and tracks often with adjacent ditches.

Nature Conservation Summary

This is a large and important nature conservation site consisting of various woodland types ranging from semi-natural broadleaved woodland to dense conifer plantation. These provide a huge diversity of structure and species.

The broadleaved woodland supports relatively high species diversity and locally rare species. There has been significant improvement in the woodland habitat since extensive rhododendron removal. In particular the ground flora is likely to have become more diverse. The woodland shows signs of significant tree regeneration and has a good quantity of deadwood habitats.

Although the neutral grassland is dominated by knapweed with relatively few other herb species it is well used by insects such as bees and hoverflies.

The site is known to support bats and a good range of breeding birds.

The south side of Callendar Lake supports a diverse range of aquatic plants including locally rare species.

Conservation and Enhancement Opportunities

- Continue rhododendron control to ensure it does not re-establish;
- Control other invasive non-native species (particularly Japanese Knotweed and Himalayan Balsam);
- Move towards more broadleaved woodland within the forestry plan;
- Enhance native ground flora by clearing areas where bracken/bramble dominate and seeding or planting with native species;
- Adjust the site boundary to take in more areas of open parkland of benefit to bats and birds;
- Enhance neutral grassland by sapling removal and a cutting regime.

11. Camelon Riverside

Grid Ref. NS 86931 81233

Area 5.4 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Mixed plantation woodland Neutral and semi-improved grassland Ponds Scrub.
Species	High potential for otter, amphibians and woodland bird species.
Connectivity	A key site in the River Carron habitat corridor.
Community	Paths around the site edge frequently used.

Description

This site is immediately adjacent to the River Carron in an urban fringe setting. It sits at the base of an old landfill site (now sports pitches and amenity grassland) and is subject to occasional inundation by the river.

Although limited in size the site contains a number of distinct habitats including wetland, scrub and woodland.

Areas of open water and swamp are located in the centre of the site. Scrubby broadleaved woodland habitat occurs along the riverbank and into the centre of the site. Mixed plantation woodland forms the southern boundary.

Areas of grassland are primarily located in the western end of the site.

Nature Conservation Summary

This site, despite its limited size supports a good range of different habitats, some of which are semi-natural in character. The woodland exhibits a reasonably diverse scrub layer and ground-flora, although the ground flora may be inhibited by the increasing dominance of Himalayan balsam.

The ponds in the centre of the site, despite becoming rather silted up by vegetation, are relatively rich in biodiversity. The variety of conditions and species may be enhanced by occasional inundation of the wetland by the river.

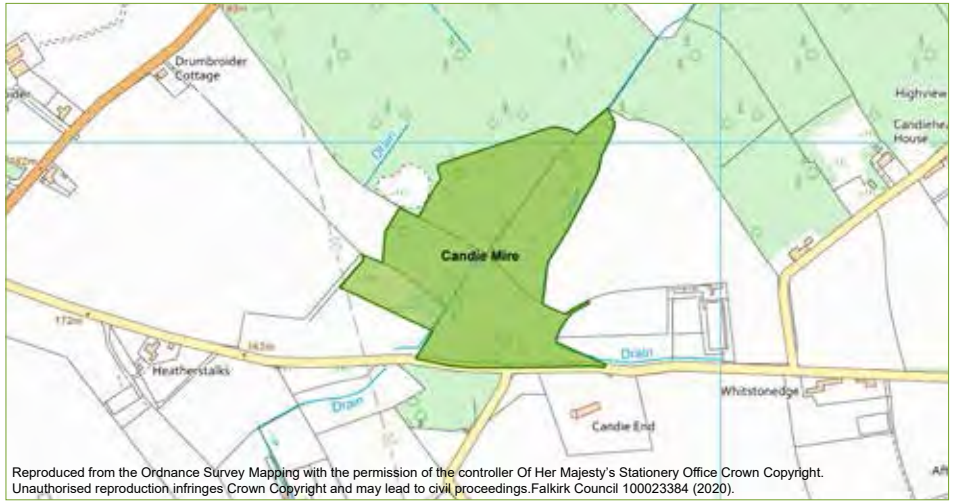
93 plant species and a range of breeding birds, invertebrates, and amphibians have been recorded at the site. It is suggested that the site may be of importance for otter.

The site occupies an important position on the habitat corridor formed by the River Carron.

Conservation and Enhancement Opportunities

- Put in place woodland management to encourage structural and age diversity and favour native species;
- Potential for improved grassland management/meadow creation in grassland areas to the west of the site;
- Control of invasive plant species, particularly Himalayan Balsam and Japanese Knotweed;
- Extend site boundary to include the grassland to the west;
- Maintain areas of open water with careful removal of some shading tree limbs.

12. Candie Mire



Grid Ref. NS 92705 73860

Area 6.3 Hectares

Key Features

Habitat (s)
Raised bog
Scrub
Acidic and marshy grassland
Pond.

Species
Good bryophyte diversity, including 11 sphagnum species.
Several LBAP species present.

Connectivity
Contiguous to areas of woodland and marshy grassland to north.

Community
No formal access.

Description

Candie Mire is a relic area of raised bog situated in a broad valley. It has woodland and scrub on most margins of the bog, with some additional areas of marshy and acidic grassland around the edge of the site.

A pond has been created relatively recently in the south-western area of marshy grassland.

The surrounding land is agricultural pasture, with an area of mine spoil to the north-east.

Nature Conservation Summary

This site has considerable nature conservation interest. This is mainly due to its relic raised bog habitat with relatively intact mire surface, good sphagnum cover and good species diversity. Also of note are the wet 'carr' scrub area to the south, marshy grassland to the southwest and acidic grassland to the south. Scrub invasion into the marshy grassland and mire habitat is increasing the area of woodland cover.

The site has good bryophyte species diversity (30 species recorded), including sphagnum species typical of raised bogs. The occurrence of Sphagnum molle and several leafy liverworts including the LBAP priority lepidozia pearsonii is of note. Several other LBAP plant and animal species are known to occur on the site, as well as the locally rare lesser twayblade and greater butterfly orchid.

Conservation and Enhancement Opportunities

- Scrub control on the raised bog and the acidic grassland areas;
- A grass cutting regime on the acid grassland to the SW of the site may be of benefit;
- Some drain blocking may benefit the bog;
- Limited thinning within the 'carr' scrub may be beneficial.

13. Carriden Wood

Grid Ref. NT 02767 80858

Area 21.4 Hectares

Key Features

Habitat (s)	Semi-natural broadleaved woodland Saltmarsh Strandline vegetation Watercourses.
Species	133 plant species recorded, including several local rarities and LBAP species.
Connectivity	An important habitat corridor along the foreshore.
Community	Well used public paths through the site, including the John Muir Way.

Description

Carriden woods is a continuous strip of semi-natural broadleaved woodland running parallel to the shoreline east of Bo'ness.

It sits on a low-lying raised beach area and steep embankment (the old cliff line). Beyond this embankment, to the south is intensive agriculture.

The site also includes a narrow strip of maritime vegetation along the shoreline.

There are informal paths through the woods; however the main route is the John Muir Way running along the northern edge of the site, next to the shoreline.

Nature Conservation Summary

This site represents a substantial area of semi-natural broadleaved woodland of high nature conservation interest.

Its conservation value is increased due to the species diversity provided by its location on the shore, with associated strandline and saltmarsh vegetation.

Mature trees along the southern edge of the site give important structure and provide standing deadwood habitats.

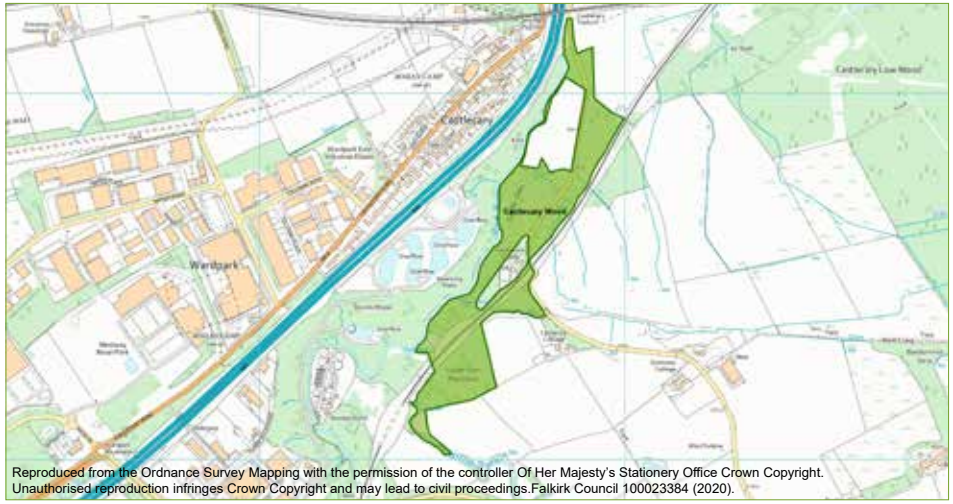
133 plant species have been recorded, including local rarities such as sea sandwort, glasswort and wood bluegrass. A bryophyte survey suggests the presence of a number of species of local interest. A number of LBAP species have been recorded or are likely to occur.

The site is an important element of a habitat network running along the shoreline linking open countryside and woodland to the east with foreshore, brownfield and grassland habitats further west.

Conservation and Enhancement Opportunities

- Woodland management, particularly in the dense central area to improve woodland structure;
- Control of encroaching Rhododendron and Laurel in the woodland;
- Investigate including the NW triangle of birch woodland in the wildlife site;
- Potential for improved path provision within the woods.

14. Castlecary Wood



Grid Ref. NS 78696 77574

Area 13.7 Hectares

Key Features

Habitat (s)	Semi-natural and plantation broadleaved woodland Conifer woodland Scrub.
Species	Several LBAP species recorded and others suspected. High species diversity.
Connectivity	An important site on the habitat corridor along the Red Burn.
Community	Open access.

Description

This site is a steep valley side with predominantly semi-natural mixed broadleaved and plantation woodlands. It lies on the east side of the Red Burn and is sandwiched between the burn and the railway to the east, with a small area of plantation woodland on the other side of the railway line.

An improved agricultural field lies within the woodland to the north but is not included in the boundary of the wildlife site.

Many small burns run through the woodland to the Red Burn.

Nature Conservation Summary

This site contains a wide range of woodland types, giving a high species diversity. Mature oaks form an important part of the tree canopy, although non-native beech and sycamore are tending to dominate. There is evidence of significant regeneration of sycamore, beech, hawthorn, ash and willow throughout. Overall the site supports exceptionally high value woodland, particularly below the castle.

The woodland is afforded added interest by the small flushes, rock exposures and grassland areas. The ground-flora is of interest due to this range of vegetation types and its generally semi-natural character.

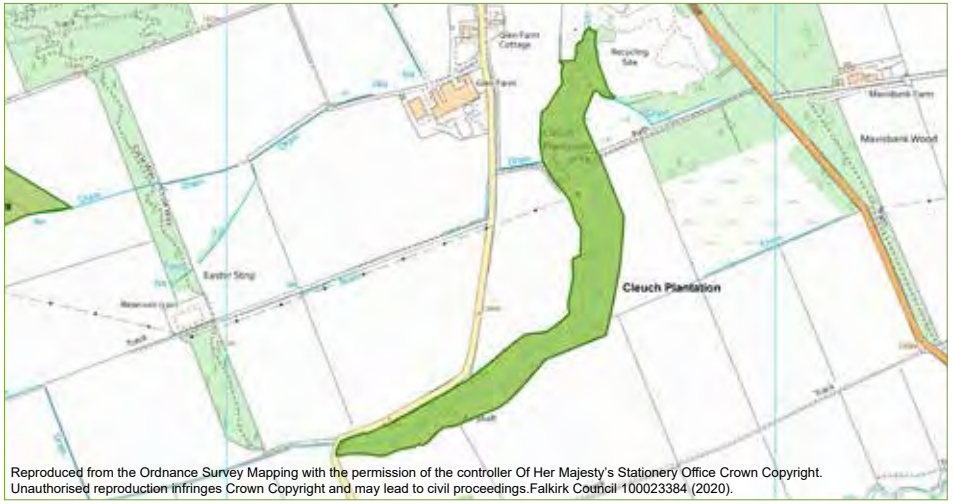
The site has a high species diversity (150 species previously recorded), including several locally rare species and LBAP species. Exposed rock faces, particularly beside waterfalls, are of note for bryophyte diversity.

The site is part of a wider habitat corridor along the Red Burn, linking to road, rail and canal corridors to the north and Cumbernauld Glen to the south.

Conservation and Enhancement Opportunities

- Control of Himalayan balsam and Japanese Knotweed;
- Potential for tree planting in northern field to extend the woodland;
- Measures to deter dumping along the roadside would be beneficial;
- Woodland management could favour native species to help limit the dominance of beech and sycamore.

15. Cleuch Plantation



Grid Ref. NS 88573 77458

Area 7.2 Hectares

Key Features

Habitat (s)	Broadleaved woodland.
Species	Likely to be important for breeding birds and bats.
Connectivity	Part of a habitat network linking habitat to the east and south, along the burn.
Community	Open access with well used path.

Description

Cleuch Plantation is a broadleaved woodland in a steep sided gorge, situated to the south of Hallglen.

A stony burn flows through the bottom of the gorge. While sometimes dry, the burn clearly does receive periodic flows of clean water (fed from the bogs of the Slamannan Plateau).

Adjacent land use comprises improved agricultural fields and disturbed ground to the north associated with a large scrapyard.

Access to the site is limited by the steep sides, however there is a well-used path through the site.

Nature Conservation Summary

This woodland is a rare example of relatively undisturbed woodland of semi-natural character, the gorge preventing easy access to much of the site. Although much of the woodland has been planted, it has developed good semi-natural qualities with a diverse structure and range of species.

The wood is recovering from the loss of elm with plenty of regeneration of other species and has a diverse ground flora and shrub layer.

The gorge area also has good deadwood habitats. There is added conservation interest provided by the shaded gorge-like rocks which support a good range of ferns and bryophytes including the locally rare Oak fern.

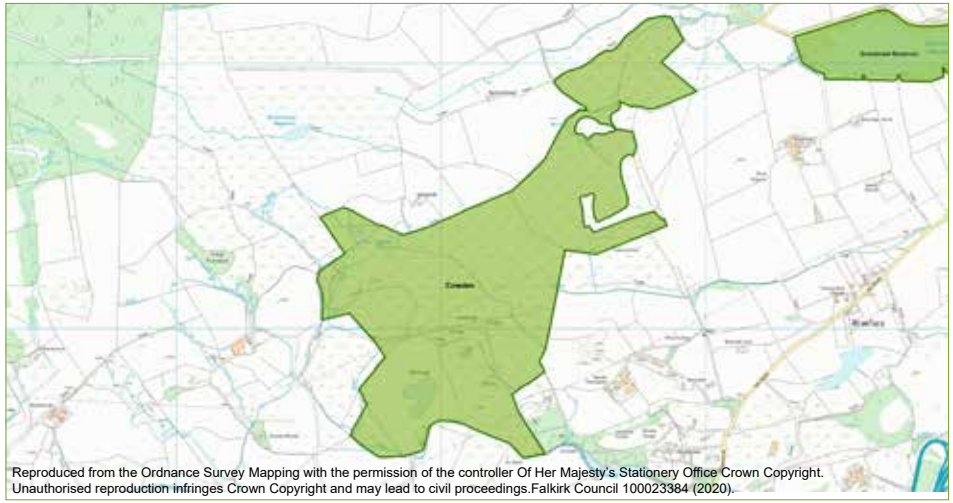
The woodland is likely to be important for a number of LBAP species, including woodland birds, mammals, and bats.

The site forms a key part of a habitat corridor along the burn reaching towards the Union canal, Hallglen Haven and Mavisbank wood to the north and east and towards other plantation woodlands to the south.

Conservation and Enhancement Opportunities

- Non-intervention in the 'wilder' gorge woodland;
- Control the level of Sycamore regeneration;
- Open up areas in the southern sycamore dominated area to encourage ash regeneration;
- Extend the wooded area with new planting if opportunities arise.

16. Cowden



Grid Ref. NS 77209 80244

Area 89.5 Hectares

Key Features

Habitat (s)	Blanket bog & wet modified bog Heath Heath & grassland mosaic Wetlands (swamp, marsh, mire and flushes) Unimproved grassland Scrub.
Species	The site supports a diverse range of species including LBAP priority - Brown hare.
Connectivity	A large site connecting to other sites and burns to the north, northwest and east.
Community	No formal access.

Description

Cowden is an extensive site within a highly modified agricultural and post industrial landscape.

It is an undulating area with upland characteristics containing remnant mire habitat, a range of grassland types, heath & grassland mosaics, wetland areas and scrub.

The site also includes Cowden quarry. Mire habitats cover a large part of the site and there are also two areas of swamp habitat.

The site also includes several areas of improved grassland and arable ground.

Nature Conservation Summary

This extensive site supports a wide variety of different habitat types, including locally rare swamp and heath habitats.

The site also contains a diverse range of species, some locally rare. Of note are fen bedstraw, bog sedge, dioecious sedge, and greater tussock sedge.

Locally rare species include marsh arrow grass, bog pondweed, and common yellow sedge. The LBAP species Brown hare also occurs.

Some areas of lower nature conservation interest have been included in the site boundary in order to preserve the overall integrity of the site and to promote beneficial management of these areas.

The site forms an extensive area and is part of a wider habitat network reaching towards the castlerankine burn to the northeast, drumbroider moss to the east, open upland countryside to the north and further mire to the northwest.

Conservation and Enhancement Opportunities

- Reassess site boundary to exclude highly modified habitats or improved fields not critical to the sites integrity;
- Restoration of the now disused quarry to benefit wildlife;
- Grazing management to prevent damage to sensitive habitats and enhance grasslands.

17. Craigbank Quarry (Avonbridge)

Grid Ref. NS 90774 72267

Area 2.5 Hectares

Key Features

Habitat (s)	Scrub and woodland Unimproved grassland Swamp and mire Rock and scree.
Species	High species diversity.
Connectivity	Relatively isolated but some links to the burn corridor to the north.
Community	Limited access.

Description

This site consists of land associated with old quarry workings and supports a diverse range of small scale habitat types including: mire, grassland, scrub and wetland. These are often present in complex habitat mosaics.

Scrub is a dominant feature on the site, with some areas of broadleaved woodland on the long-established embankment slopes.

There are a few large glades with sedge dominated mire.

The surrounding land supports intensive agriculture, a compound with caravans to the southwest and the edge of Avonbridge to the east.

Nature Conservation Summary

Although small, this is a highly diverse site with a complex range of different habitats. The site also supports a diverse range of higher plant species (151) including several unusual and locally rare species.

The sites high diversity and the species rich and somewhat unusual vegetation of the quarry floor, combined with the secluded setting and habitats of the surrounding quarry walls, produce a site of high nature conservation interest.

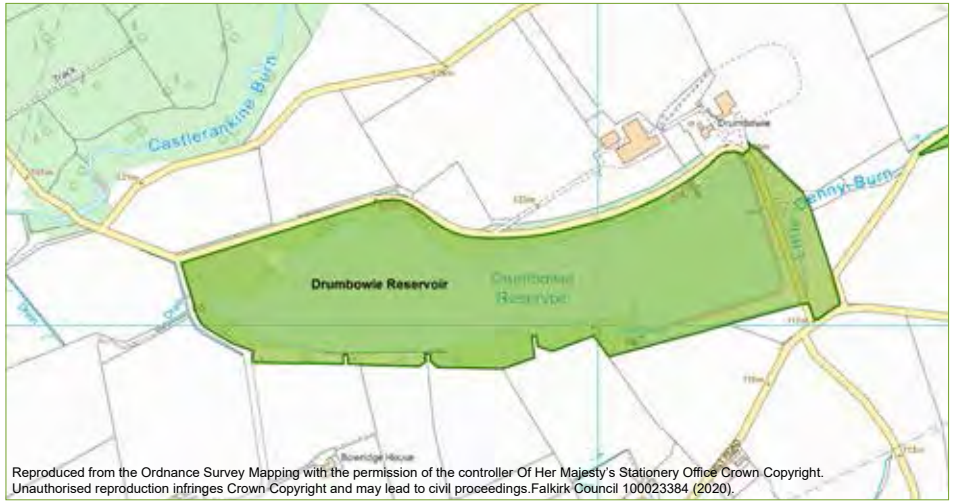
The wet quarry floor is important for the rich species diversity it supports, including several local rarities such as marsh arrowgrass, knotted pearlwort, field pepperwort and silvery hairgrass, as well as several mosses of local interest. 30 species of bryophyte have been recorded.

The site is relatively isolated, although it does link to scrub/woodland and a burn to the north.

Conservation and Enhancement Opportunities

- Adjust boundary to exclude area of dumped material in SW;
- Resurvey the site in spring;
- Management to maintain habitat diversity would be beneficial;
- Maintain open habitats by scrub control;
- Retain short grassland and ephemeral vegetation by periodic disturbance;
- Maintain the water quality and levels on the quarry floor.

18. Drumbowie Reservoir



Grid Ref. NS 78879 81078

Area 22 Hectares

Key Features

Habitat (s)	Open water Woodland and scrub Swamp Grassland Heath.
Species	15 locally rare species. Several LBAP species.
Connectivity	Close to Little Denny Reservoir and the Castlerankine Burn Corridor.
Community	Limited access. Used for fishing.

Description

This site, situated to the west of Denny, consists of a public water supply reservoir and the surrounding fringe of, relatively natural, habitats. These include woodland, scrub, grassland, heath and wetland.

While there is limited access for walkers the reservoir is used for fishing.

Nature Conservation Summary

This site has a high diversity of habitats including birch woodland, willow carr, scrub, swamp and inundation vegetation, open water, neutral and acid grassland and heath.

Extensive areas of open water, heath and willow carr are locally rare habitats. The emergent vegetation to the west of the site is of particular note.

Although species diversity is not huge (111 plant species recorded) there are a significant number of locally rare plant species.

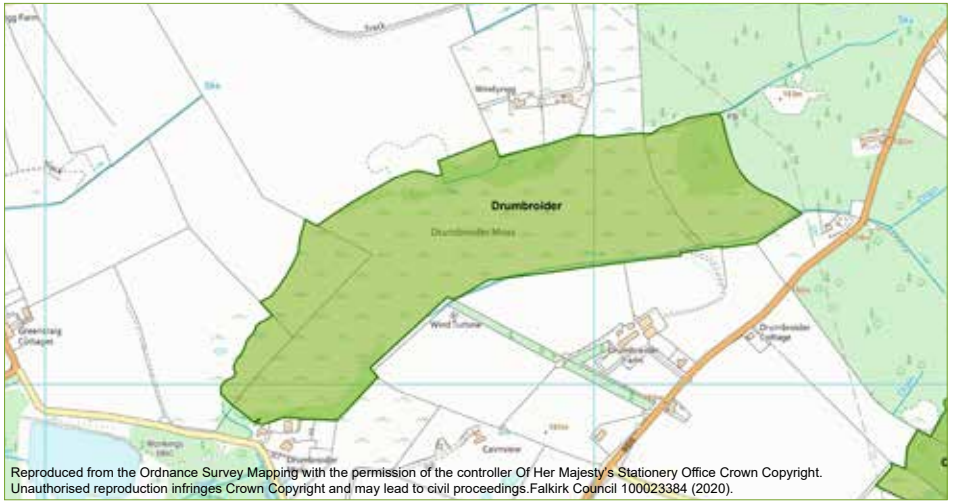
Several LBAP priority species are also likely to be present including amphibians, woodland and wetland bird species and short-eared owl.

The site is in close proximity to Little Denny reservoir to the east and the Castlerankine Burn corridor to the west, forming an important wetland habitat corridor.

Conservation and Enhancement Opportunities

- Eradicate large areas of Rosebay Wilowherb;
- Scrub control in areas of heath;
- Grassland management to encourage a diverse grassland sward;
- Re-establish heath in place of NW birch woodland;
- Consider exclusion of the amenity grassland to the east of the site.

19. Drumbroider



Grid Ref. NS 91800 74247

Area 24.5 Hectares

Key Features

Habitat (s)	Raised bog Basin mire Marshy grassland Scrub & woodland.
Species	LBAP species including round-leaved sundew and snipe.
Connectivity	Close to other raised bog sites, woodland and Standburn Wildlife Site.
Community	Very limited access.

Description

This site contains a large area of intact raised bog. It is situated in a long, fairly broad, shallow valley fringed by predominantly fen, scrub and marshy grassland.

Semi-improved pastures neighbouring the north and south of the site drain into the margins of the raised bog, however there appears to be little active drainage of the bog itself.

Nature Conservation Summary

The core interest of this site is the large, central area of raised bog with intact bog vegetation cover.

Intact raised bog is a nationally rare habitat.

During surveys in 2012 Drumbroider was placed in the top five of 58 bog sites, based on its site condition.

The habitat diversity is increased by the range of habitats found on the fringes of the bog including fen, woodland and scrub.

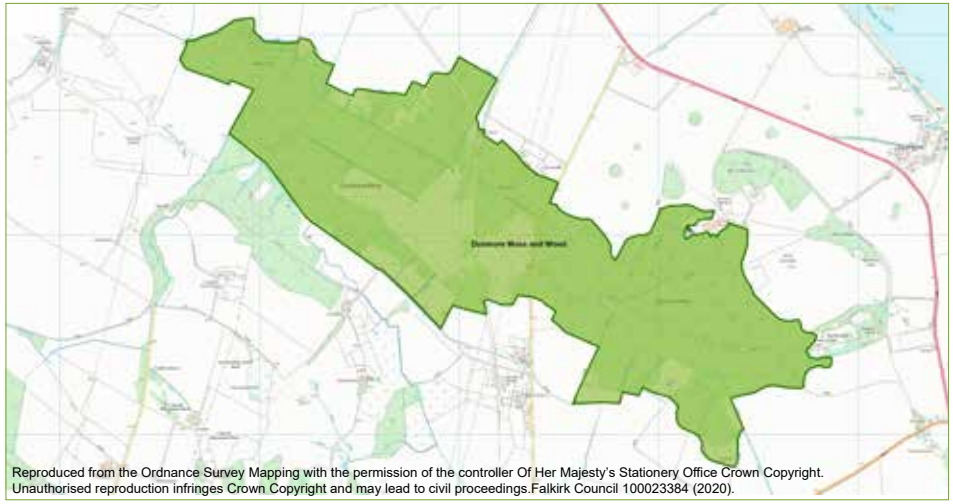
There is heavy grazing in the south-west section of the bog which is causing some damage, however wetland birds may be feeding in the muddy areas created by the cattle.

Species diversity is high and includes a number of characteristic bog species including round-leaved sundew and sphagnum species. Several LBAP species are present.

Conservation and Enhancement Opportunities

- Grazing management to reduce impacts on raised bog;
- Scrub control on raised bog;
- Ensure surrounding drainage does not impact on the bog hydrology.

20. Dunmore Moss and Wood



Grid Ref. NS 87246 89012

Area 242.5 Hectares

Key Features

Habitat (s)
Conifer and broadleaved woodland
Scrub
Raised and modified bog
Heath and grassland.

Species
High plant species diversity. Nationally rare great crested newts and Labrador tea.

Connectivity
Links to further bog habitat to the NE.

Community
Site accessible and likely to be well used by walkers (particularly the wood).

Description

Dunmore Moss and Wood make up a large site situated 3km east of Cowie. Much of the site has extensive peat deposits and would, in the past, have supported large areas of raised bog. Today there is no intact bog vegetation, following drainage and extraction.

The eastern half of the site supports extensive conifer plantation, planted broadleaved woodland and some semi-natural broadleaved woodland and scrub. The western half of the site supports a large area of modified bog surrounded by scrub and woodland with smaller areas of grassland and heath.

The woodland to the east includes a number of ponds.

The area of interest extends to an area of scrub and bog within the Stirling Council area.

The wider surrounding landscape is primarily improved agriculture.

Nature Conservation Summary

This extensive site supports a diverse range of habitats, including the nationally rare raised bog and locally rare heath.

Although much of Dunmore Moss is covered by birch scrub and the bog vegetation is poorly developed, there is scope to restore this area of bog.

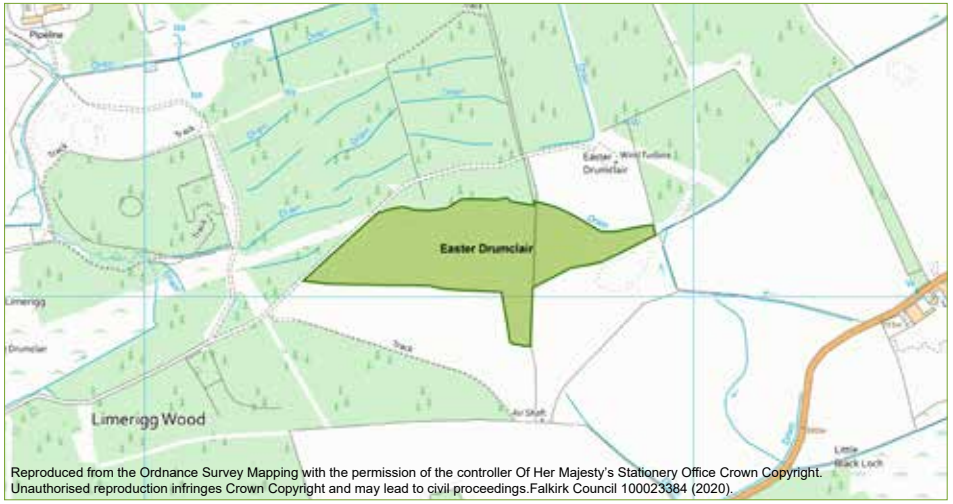
The site has high species diversity (212 plant species recorded), including a number of locally rare plants.

The site is known to support the nationally rare and protected great crested newt. It also supports the nationally rare Labrador tea. A number of other LBAP species are present.

Conservation and Enhancement Opportunities

- Birch removal on Dunmore Moss to restore the bog;
- Block large drains on Dunmore Moss to restore the bog;
- Management of Dunmore Wood to retain semi-natural woodland;
- Removal of rhododendron ponticum from semi-natural woodland areas;
- Protection of ponds used by great crested newts and creation of new ponds.

21. Easter Drumclair



Grid Ref. NS 86603 71083

Area 7.4 Hectares

Key Features

Habitat (s)	Raised bog Mire.
Species	Good range of typical bog species. Several LBAP species present.
Connectivity	Isolated by forestry and agriculture.
Community	A path provides access from Limerigg.

Description

Easter Drumclair is a relic area of raised bog with a narrow, but reasonably well developed, lagg fen to the north. It is surrounded by conifer forestry to the north, south and west and improved agriculture to the east.

The bog surface is wet despite suffering from deep drainage.

Nature Conservation Summary

The site supports nationally rare raised bog habitat and locally rare mire habitat. Despite being small, the site supports habitats and vegetation of nature conservation interest.

The mire is intact, with almost continuous Sphagnum cover in the centre and peat-forming Sphagnum species occurring across the site.

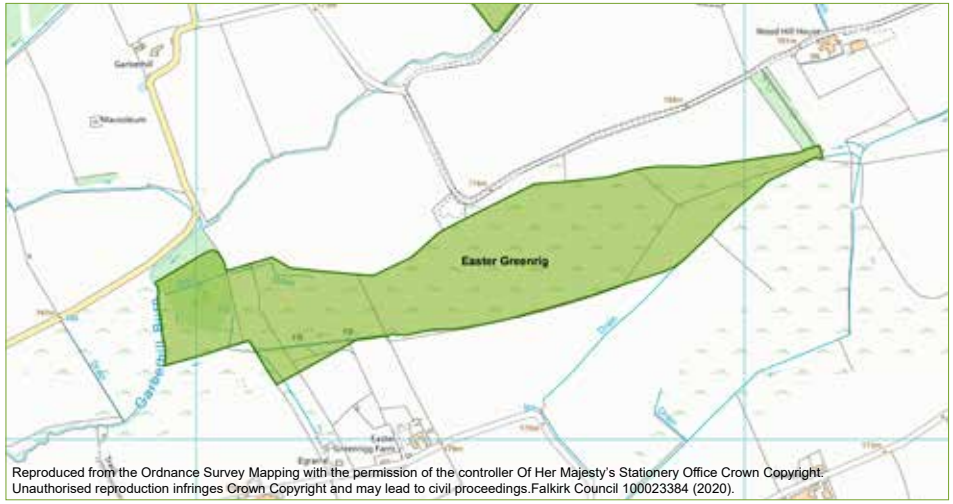
The site has been extensively drained in the past having a negative effect on the site, however recent drain blocking and scrub control are being undertaken to restore the bog habitat.

73 plant species have been recorded on site including a range of characteristic bog plant species.

Conservation and Enhancement Opportunities

- Grazing management would be beneficial (particularly to the east);
- Continue to undertake drain blocking to restore the bog;
- Continue scrub removal on the bog.

22. Easter Greenrig



Grid Ref. NS 82479 74315

Area 19.2 Hectares

Key Features

Habitat (s)	Raised and modified bog Basin mire.
Species	Good bog mosses and several LBAP species likely.
Connectivity	Site associated with a number of similar nearby bog sites.
Community	Limited access.

Description

This site comprises a fairly large area of narrow raised bog situated in a shallow basin with lagg mire around much of the margin.

Semi-improved acidic grassland drains towards the mire from the south side.

The site lies on the Slamannan Plateau southeast of Cumbernauld.

Nature Conservation Summary

The site supports intact primary raised bog (a nationally rare habitat) and a good range of typical bog species. The locally rare lagg mire habitat around the perimeter of the raised bog adds further habitat and species diversity.

A good range of bog mosses occur and a range of LBAP species are likely to be associated with the site. Round-leaved sundew is present.

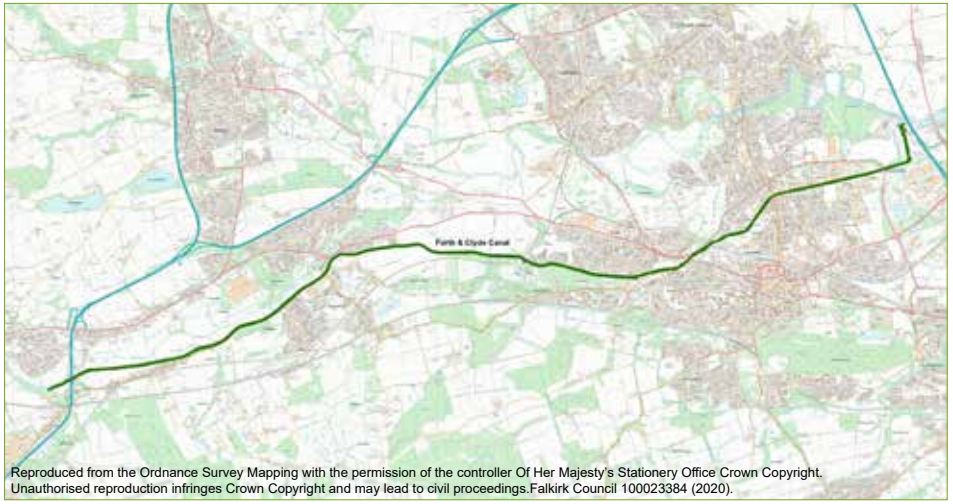
The site is fairly large and forms part of a network of similar bog sites across the Slamannan Plateau.

The site hydrology is reasonably healthy but vulnerable to grazing pressure, summer drying, drainage and scrub invasion.

Conservation and Enhancement Opportunities

- Block large central drain and other ditches within the bog;
- Remove birch scrub from the bog;
- Grazing management to protect the bog.

23. Forth and Clyde Canal



Grid Ref.	**NS 84883 80205**	Area	**24.1 Hectares**

Key Features

Habitat (s)	Canal.
Species	Several LBAP priority species.
Connectivity	An important wildlife corridor.
Community	Well used for recreation.

Description

In this area the Forth and Clyde canal runs from the M9 crossing of the River Carron in the east to Banknock in the west. The canal is open and regularly used by boat traffic. For most of its length one side of the canal is accessible via a well maintained towpath. The other canal bank tends to remain inaccessible and therefore less disturbed and more attractive to wildlife.

In many places the canal is associated with adjacent areas of semi-natural habitat which are vital to its role as a wildlife corridor.

Nature Conservation Summary

This extensive linear site, while dominated by the open water area of the canal, also supports areas of emergent vegetation and riparian vegetation such as woodland, scrub, marshy grassland and mire.

Species diversity appears to be reasonably high. A number of locally rare species have previously been recorded from the canal including frogbit, alpine pondweed and flat-stalked pondweed. The LBAP priority species tufted loosestrife has also been recorded.

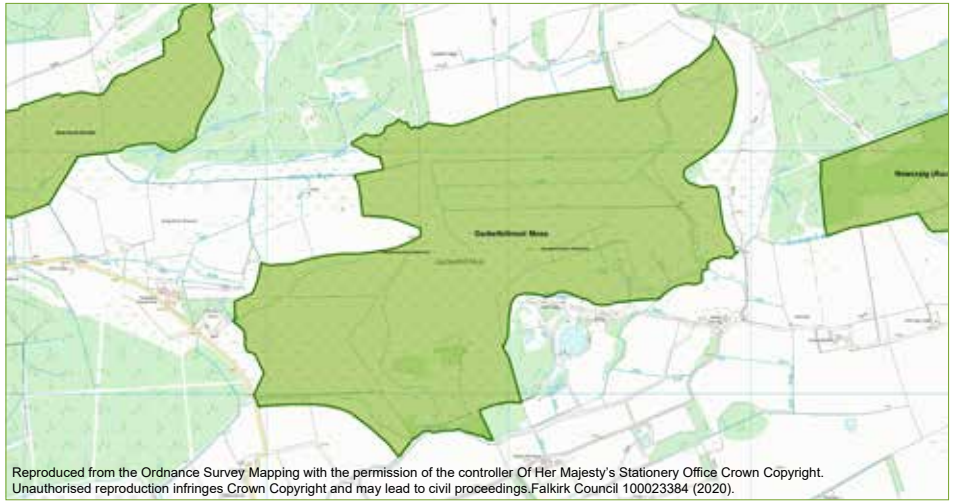
The site is likely to be important for bird, invertebrate and amphibian species. Otter and potentially water vole also use the canal.

The site plays a critical role as a wildlife corridor running right across the Falkirk area and linking many other areas of semi-natural habitat.

Conservation and Enhancement Opportunities

- Maintain a less disturbed side of the canal away from the towpath where possible;
- Prevent loss of immediately adjacent riparian habitat as a result of inappropriate development or management;
- Control non-native, invasive species (including Japanese Knotweed);
- Take opportunities to provide interpretation of the canal biodiversity.

24. Garbethillmuir Moss



Grid Ref. NS 82965 75627

Area 177.4 Hectares

Key Features

Habitat (s)	Raised bog Mire Unimproved grassland Heath.
Species	High species diversity. Several LBAP species.
Connectivity	Part of a network of bog sites in the area.
Community	Limited access.

Description

An extensive site situated on the Slamannan Plateau, forming a more or less distinct area of raised bog on a level plateau. There are also some heathy or acid grassland ridges with localised areas of lagg mire.

There is often an abrupt transition from bog to pasture around the edges of the site. Other surrounding land-use includes forestry and a shooting school to the south.

Much of this Wildlife Site is within North Lanarkshire Council area.

Nature Conservation Summary

This is a very extensive area of raised bog which is a nationally important habitat. It is one of the largest examples of intact raised bog in the area.

Although past grazing and drainage have reduced the quality of the vegetation, large areas of good sphagnum bog vegetation still occur.

Both species and habitat diversity are higher than average for this sort of raised bog site.

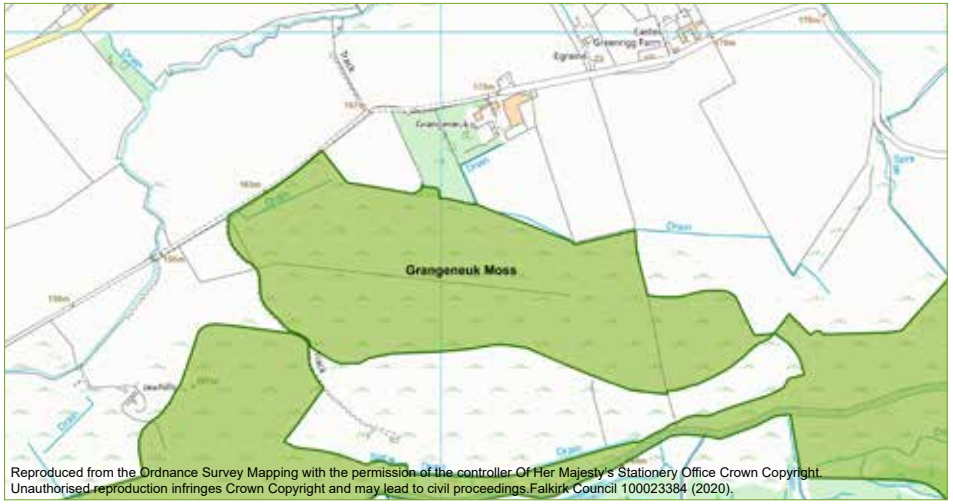
Bean Geese are known to use this area.

The site is part of an important network of bog sites within the Slamannan Plateau area.

Conservation and Enhancement Opportunities

- Grazing management to reduce damage in places;
- Drain blocking to help re-wet areas where drying has occurred;
- Care that adjacent land-use pressures do not have an increased impact on the site.

25. Grangeneuk Moss



Grid Ref. NS 82050 73584

Area 18.6 Hectares

Key Features

Habitat (s)	Raised bog Basin mire.
Species	Good number of LBAP species likely.
Connectivity	Immediately next to Jawhills Wildlife site and other similar bogs nearby.
Community	Limited access.

Description

This site consists of a large area of rasied bog surrounded by a virtually complete maginal lagg fen in a shallow basin, with higher ground to the north. Surrounding landuse is agricultural pasture.

Nature Conservation Summary

The main interest of this site is the large central area of raised bog, a nationally important habitat. Additional interest is provided by the lagg zone which extends around the entire margin of the bog and includes bog pools and areas of wet heath.

The bog has good quality intact bog vegetation supporting a range of typical bog species. There is excellent bryophyte cover in the central bog dome.

A good number of LBAP species are likely to occur on site and bean geese are known to use nearby areas.

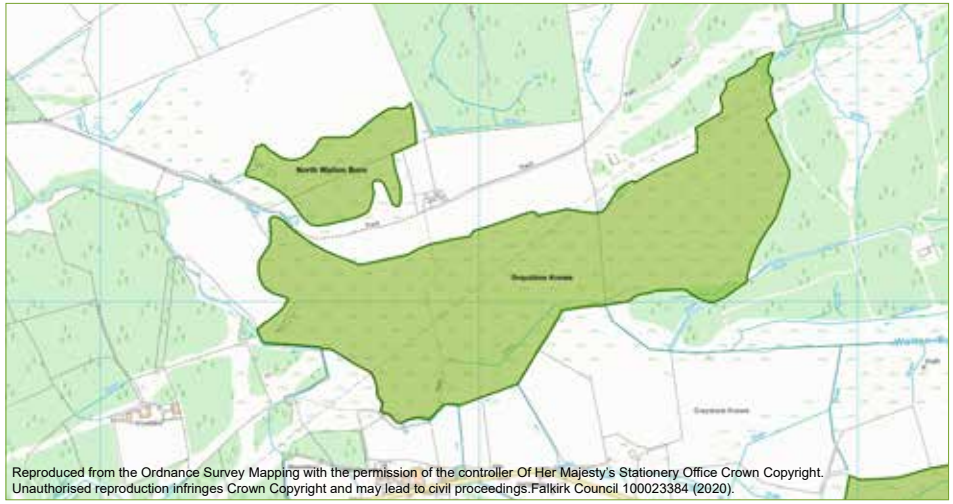
The south and extreme east part of the mire has been subject to heavy grazing in the past but the area appears now to be lightly grazed. The mire is recovering well from past disturbance.

The value of the site is increased by its association with a large area of heath, mire and fen vegetation in the neighbouring Jawhills Wildlife Site.

Conservation and Enhancement Opportunities

- Ensure grazing pressure remains low;
- Ditch blocking to keep the bog wet;
- Remove invading scrub for the bog and lagg mire.

26. Graystone Knowe



Grid Ref. NS 81163 76092

Area 49.9 Hectares

Key Features

Habitat (s)	Blanket bog Wet modified bog Dry and wet heath Valley mire.
Species	Good range of species including several LBAP species.
Connectivity	Next to North Walton Burn and Garbethill Muir wildlife sites.
Community	Good local footpath network.

Description

This site, situated to the east of Cumbernauld, supports an extensive and complex mix of dry and wet heath and mire vegetation.

Heather dominates across much of the site.

The surrounding land is improved grasslands and forestry, with the Walton Burn forming the southern boundary of the site.

The site is linked to the Garbethill Muir Wildlife site to the southeast and to North Walton Burn Wildlife site to the north.

Nature Conservation Summary

The site supports a good range of heath and mire vegetation often in a complex mosaic. Both are locally rare. Although grazed and previously drained the habitat is of good quality.

Species diversity is good for this type of habitat, with a good range of higher plants and bryophytes present. Snipe and lizard have been noted on the site and other LBAP species are likely.

Extensive cattle grazing does not appear to be a problem, and probably helps to maintain the bog vegetation.

Damage from poaching is localised. The drains on the site are revegetating and not particularly active, allowing the bog to remain quite wet.

The site is closely linked to other mire sites to the north and the southeast, and to the North Walton Burn.

Conservation and Enhancement Opportunities

- Grazing management to limit poaching but control scrub and rushes;
- Control of tree regeneration to the east of the site;
- Avoid further drainage of the site.

27. Haining Wood

Grid Ref. NS 95473 77453

Area 9.2 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland.
Species	8 species of local note. Several LBAP species including abundant bluebell.
Connectivity	Linked to key wildlife corridors along the railway and the Union canal.
Community	Some recreational use. Links to surrounding footpaths and canal.

Description

Haining wood is located to the west of the old Manuel brickworks, near Whitecross. It is a semi-natural broadleaved woodland of long-established plantation origin, dominated by birch together with some sycamore and occasional mature oak.

The site is bounded on the south by the Union canal, by farmland to the west, by the railway line to the north and by the old brickworks to the east.

A path runs around the southern and western edge of the wood, alongside the canal and then north over the railway. Various informal paths run through the woods.

There are signs of past disturbance including felling, drainage and dumping to the SE of the site.

Road construction will impact on the southern edge of the site when development of Manuel Works commences.

Nature Conservation Summary

Haining wood is a long-established area of semi-natural woodland. Added habitat diversity is provided by occasional areas of wetter, carr woodland and open glades (particularly along the northern powerlines) dominated by bracken. The site supports a good diversity of woodland plant species with areas of abundant bluebell and marsh violet.

91 plant species have been recorded, 10 of them locally notable. Several LBAP species occur on the site which has been noted for its woodland butterflies.

The site forms an important node linking the wildlife corridors of the union canal and the railway.

Conservation and Enhancement Opportunities

- Woodland management to increase structural diversity;
- Control bracken in glades to encourage woodland regeneration;
- Minimise impacts from adjacent development;
- Potential to improve provision for recreational access;
- Discourage use by motorbikes.

28. Jupiter Urban Wildlife Centre

Grid Ref. NS 91849 81046

Area 4.2 Hectares

Key Features

Habitat (s)	Grassland Wetland Broadleaved woodland Ponds Wildlife Garden.
Species	Wide range of LBAP species including kingfisher and bats.
Connectivity	Relatively isolated but links to transport corridors.
Community	Public access during opening hours.

Description

This site is an area of greenspace created on previously industrial ground, within the urban setting of Grangemouth.

It was created and is now managed to benefit wildlife and to give people the opportunity to experience wildlife in an urban setting.

The site supports habitat including oak dominated woodland, natural grassland, wetlands and ponds.

Nature Conservation Summary

Given the sites relatively small size the habitat diversity is high. The mosaic of woodland, grassland and wetland habitats is of particular value.

Species diversity is high - 132 higher plants, 25 mosses and liverworts, 47 fungi, 99 invertebrates and several mammal and amphibian species recorded. A range of LBAP species occur on site.

The site is managed by Scottish Wildlife Trust and visits are actively encouraged.

Conservation and Enhancement Opportunities

- Continue management of the site to benefit biodiversity.

29. Kinneil Estate

Grid Ref. NS 98051 80255

Area 64.2 Hectares

Key Features

Habitat (s)	Plantation woodland Broadleaved woodland Grassland Ponds Running water.
Species	Several LBAP species including bats, kestrel, and amphibians.
Connectivity	Part of a large habitat network linking to the north, southeast and east.
Community	Very well used for recreation.

Description

Kinneil Estate is an area of mixed habitats, managed primarily for amenity purposes. Over half of the site consists of conifer plantation. Other habitats include oak dominated ancient broadleaved woodland, neutral and marshy grassland, several ponds and a number of streams.

Situated on the western edge of Bo'ness, the site is surrounded by agricultural land to the south and southwest, and bordered by a railway to the north and housing to the east.

Nature Conservation Summary

This is an extensive site with a range of different habitats including about 5 hectares of locally rare ancient woodland.
Areas of wet woodland and the westernmost pond are of moderate to high local conservation value.
The site has an average species diversity but does support a number of LBAP priority species including bats and amphibians.
Recent management of the plantation woodland and changes to cutting of some areas of grassland is likely to improve the nature conservation value of the site.

Conservation and Enhancement Opportunities

- Enhance western pond by planting additional native wetland plants;
- Enhance eastern pond by stabilising water levels and re-profiling edges;
- Potential to create marsh habitat to the east of the western pond;
- Continued woodland management to improve structure and favour broadleaves;
- Promote grass cutting regimes that benefit wildlife;
- Retain uncut/undisturbed areas beside watercourses to benefit wildlife.

30. Little Denny Reservoir

Grid Ref. NS 79973 81383

Area 21 Hectares

Key Features

Habitat (s)	Open water, inundation and swamp Broadleaved woodland and scrub Heath Neutral grassland.
Species	13 LBAP priority bird species. Locally rare plants.
Connectivity	Close to Drumbowie reservoir.
Community	Well used for recreation.

Description

Little Denny Reservoir comprises a large area of open water and the adjacent surrounding habitats including semi-natural birch and rowan woodland, scrub, inundation vegetation, a small area of swamp, heath, neutral grassland, and marshy grassland.

The site sits to the west of Denny, separated from areas of housing by the motorway and a banking of rough grassland and scrub. The surrounding land-use to the north, south and west is agricultural.

The site is well used by local anglers.

Nature Conservation Summary

This site has a diverse range of habitats including locally rare heath, swamp and inundation vegetation. Open water sites of this extent are also relatively rare locally.

More consistent water levels recently may have resulted in an increase in swamp habitat and a corresponding decrease in inundation habitat.

The wide range of habitats results in a good number of plant species (136) including local rarities perennial cornflower, round-leaved crowfoot, narrow-leaved vetch and common polypody.

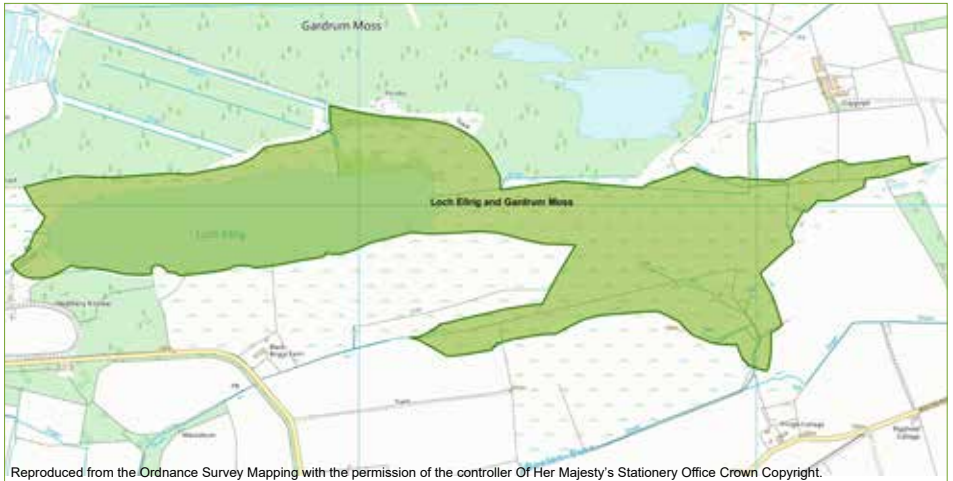
The site is also of value for bird species, with a varied bird population and a good range of wintering migrant species recorded. 13 LBAP priority bird species have been reported from the site.

The site is close to Drumbowie reservoir to the south-west, and combined with this site creates an important area for birds.

Conservation and Enhancement Opportunities

- Scrub control within the heath and grassland areas;
- Maintain relatively stable, high water levels if possible.

31. Loch Ellrig and Gardrum Moss



Grid Ref. NS 89237 74949

Area 60 Hectares

Key Features

Habitat (s)	Open water Raised and modified bog Basin mire Heath Heath and grassland mosaic Unimproved and marshy grassland Swamp Scrub.
Species	High species diversity, some locally rare.
Connectivity	Part of a complex of peatland sites across the Slamannan Plateau.
Community	Little or no recreational access.

Description

This site comprises a central loch with varied marginal vegetation including scrub, grassland, heath, mire and raised bog habitats. It also includes, to the east, a large relic area of raised bog with associated lagg mire habitat. This area of bog represents the southeastern corner of the formerly much more extensive Gardrum Moss, which has been cut for peat.

While the rest of Gardrum Moss forms the sites northern boundary, to the south is primarily improved pasture.

The site sits close to peatland Wildlife Sites at Righead and Drumbroider and to California Wildlife Site.

Nature Conservation Summary

This extensive site has higher than average habitat diversity with a complex mix of many different habitat types. It includes nationally rare raised bog as well as locally rare basin mire, wet heath and swamp habitats.

Significant areas of open water are also relatively rare in this area.

The range of habitats results in a high species diversity for the site (over 173 plant species recorded). This includes locally rare species such as whorled caraway, flea sedge, knotted pearlwort, water purslane, marsh speedwell and bay willow.

Conservation and Enhancement Opportunities

- Reduce drainage of the raised bog and mire to increase water levels;
- Investigate management of the loch's water level to benefit the habitat;
- Grazing management to limit damage to peatland habitats.

32. Lochgreen Hospital

Grid Ref. NS 87595 78599

Area 1.1 Hectares

Key Features

Habitat (s)	Dry heath Acid grassland Scrub.
Species	Song thrush, Lesser redpoll.
Connectivity	Part of a habitat corridor.
Community	Accessible for recreational use.

Description

This small urban fringe site sits on the crest of a hill north of Lionthorn and is surrounded on three sides by housing. A block of recently planted woodland lies to the west.

The site supports a mosaic of unimproved species-rich acid grassland, heath and scrub, although scrub has become more dominant over recent years.

Nature Conservation Summary

This site supports a variety of habitats, including locally rare heath and species-rich acid grassland, although there has been a move towards more scrub in recent years.

For a small urban fringe site the species diversity (c.50) is considered high, although this may have reduced in recent years. In this urban context the entirely semi-natural character of the habitat is also of importance.

The mix of habitats is likely to be of importance for invertebrates and birds and the LBAP priority species lesser redpoll and song thrush have been recorded.

The site forms part of a green corridor linking the countryside to the west, via treebelts and parkland to Bantaskine Estate and the Union canal to the north-east.

Conservation and Enhancement Opportunities

- Investigate inclusion of planted area to the west in the wildlife site;
- Scrub control to reopen grassland/heath areas;
- Develop grass cutting/grazing regime.

33. Lochgreen Moss

Grid Ref. NS 81871 77611

Area 7.2 Hectares

Key Features

Habitat (s)	Bog Basin mire Birch scrub Marshy grassland & swamp.
Species	High species diversity with several local rarities.
Connectivity	Several other mire sites nearby.
Community	Little or no recreational use.

Description

Lochgreen is a basin mire that has developed at a former loch. It now has no areas of open water.

The areas of relatively open basin mire are surrounded by birch scrub and a drier 'island' supports mature pine trees. To the west the site supports modified bog and areas of marshy grassland occur around most of the fringes of the site.

The site is surrounded by intensive agriculture, however similar mire and bog sites are found nearby at Blackhill, South Drum and Wester Drum.

Nature Conservation Summary

The site includes a diverse range of habitats including locally rare basin mire.

Species diversity is higher than average (at least 85) and there are a few rarities including Bay willow, marsh speedwell and species of moss.

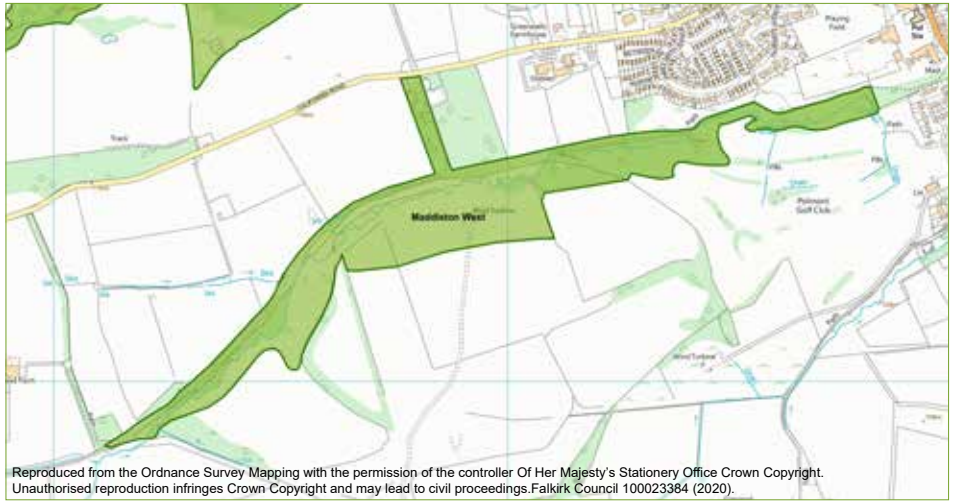
The site is largely natural in character. It is of particular interest due to the ongoing development of fen vegetation at the site.

This is an important local site for the LBAP priority habitat 'fen, marsh and swamp'.

Conservation and Enhancement Opportunities

- Prevent further invasion of scrub into areas of mire;
- Remove invasive Snowberry plants on eastern fenceline;
- Continue grazing (in drier areas) to maintain an open canopy.

34. Maddiston West



Grid Ref. NS 92975 76391

Area 19.4 Hectares

Key Features

Habitat (s)	Grassland Broadleaved woodland Running water.
Species	Diverse plant species. LBAP species.
Connectivity	Key site within the Manuel Burn habitat corridor.
Community	Well used footpath through site.

Description

Maddiston West follows the valley of the Manuel Burn on the west side of Maddiston, taking in a small shelter belt to the north and areas of pasture and the fringes of Polmont golf course to the south.

The site consist of a mix of habitats including broadleaved and mixed woodland, unimproved grassland, the burn and heath-grassland mosaic.

A key habitat feature is the unimproved relic acid grassland.

Nature Conservation Summary

The site supports a diverse range of habitats, including the locally rare relic acid grassland pasture. It supports a high species diversity and a number of LBAP species including badger, bullfinch, and spotted flycatcher. The site also appears to be good for mosses and lichens (26 species recorded).

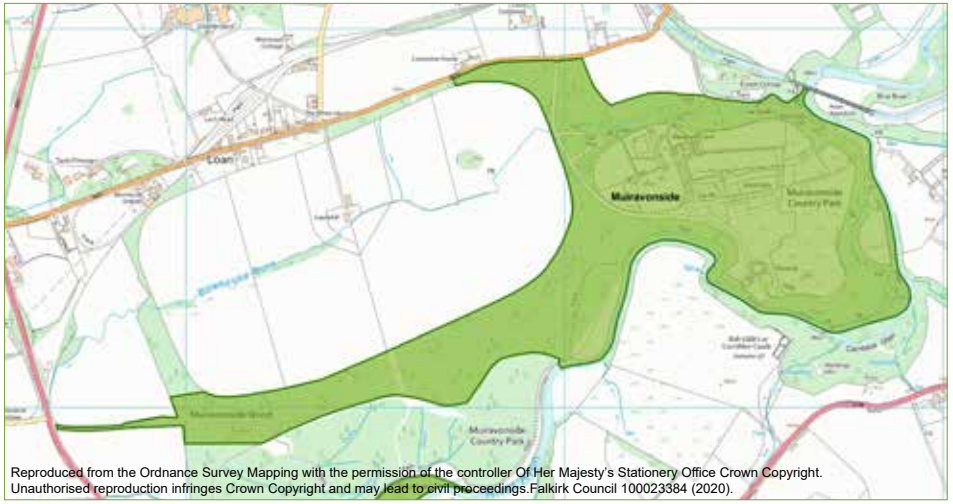
Although some of the habitats to the south of the site are more influenced by past land management, much of the habitat corridor along the burn exhibits a reasonable degree of naturalness.

The site is particularly important given its location on the wildlife corridor along the Manuel Burn, linking to Maddiston wildlife site to the east and Polmont Golf Course and wider countryside to the south, north and west.

Conservation and Enhancement Opportunities

- Manage scrub to avoid encroachment in grassland areas;
- Grassland management regime to retain species diversity.

35. Muiravonside



Grid Ref. NS 96120 75410

Area 63.9 Hectares

Key Features

Habitat (s)	Broadleaved woodland Unimproved grassland Ponds.
Species	Breeding birds, bats, greater butterfly orchid, great crested newts.
Connectivity	Part of the River Avon corridor.
Community	Extensive public use.

Description

Muiravonside country park is managed by Falkirk Community Trust to provide a recreational facility and is well used. The site contains a range of habitats including ancient gorge woodlands, semi-natural and plantation woodland, grasslands, riparian habitats along the River Avon and ponds.

The woodland has characteristic ground flora and a well developed shrub layer.

Recent management has seen the creation of new ponds and control of invasive species. There are also plans for meadow grass management and ongoing woodland management.

Nature Conservation Summary

Muiravonside is an extensive site and supports a range of locally important habitats. Of particular value is the semi-natural gorge woodland and the riparian habitat along the river. Habitat diversity is enhanced by the presence of unimproved grassland and a number of established and new ponds, as well as remnant features from the old estate such as hedgerows, veteran trees and orchards.

The site is likely to support a wide range of species including breeding birds, but is particularly noted for its bats, greater butterfly orchids and the nationally rare great crested newt.

Recent and planned management will further improve the diversity and condition of key habitats within the site.

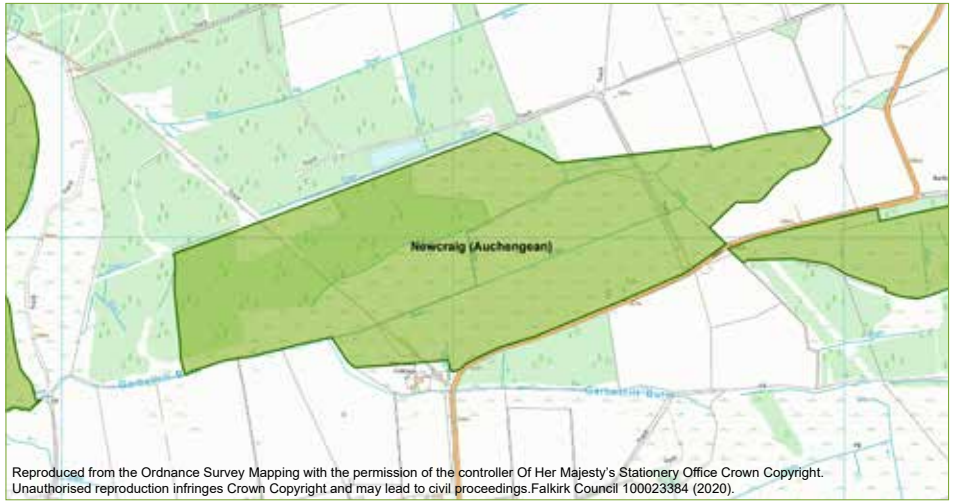
As a country park the site is easily accessed and well used for recreational and educational purposes.

The site is an important node within the wildlife corridor along the River Avon and the Union Canal, as well as being linked to the adjacent Carriber Glen SSSI and Almond Bing Wildlife Site.

Conservation and Enhancement Opportunities

- Manage the unimproved grassland to encourage wildflowers/meadow;
- Manage woodland to favour native ash-oak woodland type;
- Encourage greater woodland age diversity and increased deadwood habitat;
- Manage ponds for wildlife (particularly newts);
- Continue invasive non-native species control.

36. Newcraig (Auchengean)



Grid Ref. NS 85031 75965

Area 60.3 Hectares

Key Features

Habitat (s)	Raised bog Basin mire Heath Acid grassland.
Species	Typical bog mosses. Round-leaved sundew.
Connectivity	Adjacent to Barleyside Wildlife site.
Community	Not easily accessed.

Description

Newcraig, situated on the Slamannan Plateau, is a large area of deep peat raised bog, with associated mire and a raised area of heathy grassland.

While the site has been effected by past burning and drainage, the more central areas of the bog are wet underfoot and support a reasonable cover of sphagnum moss and characteristic bog vegetation.

The site is associated with a network of similar raised bog sites across the Slamannan Plateau.

Nature Conservation Summary

This is an extensive area of nationally rare raised bog habitat with associated basin mire and heath vegetation both of which are locally rare.

The site has a higher than average species diversity, although no rarities have been recorded.

A large pool to the north of the site is likely to provide good habitat for aquatic invertebrates.

Damage from fires appears to be historical, however past drainage is likely to continue to have a drying effect on the bog.

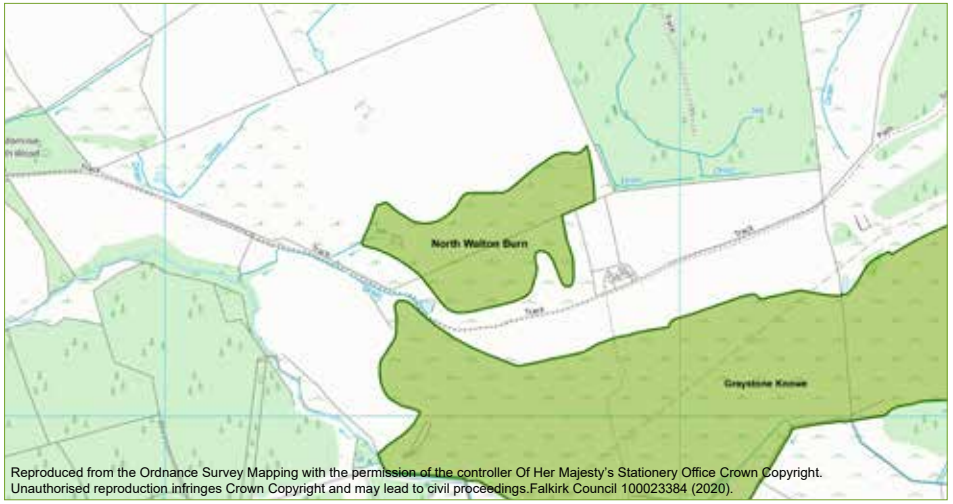
Scrub encroachment is only noticeable in the degraded eastern section of the bog.

Some restoration work has been carried out by SWT in the past.

Conservation and Enhancement Opportunities

- Undertake ditch blocking to re-wet the bog habitat;
- Grazing management plan to ensure appropriate grazing levels;
- Avoid further tree planting where it may impact on the bog.

37. North Walton Burn



Grid Ref. NS 80583 76353

Area 7.3 Hectares

Key Features

Habitat (s)	Raised bog Valley mire Heath Acid grassland.
Species	High species diversity.
Connectivity	Adjacent to Graystone knowe wildlife site.
Community	No easy access

Description

This site contains a mixture of bog and heath habitats, surrounded by a mosaic of mire and marshy channels.

The two main sloped areas of grassland (to the east and west) drain into the central mire.

There are two areas of rock outcrop plus a number of raised heathy knolls.

To the northeast of the site is a significant area of wet heath.

Nature Conservation Summary

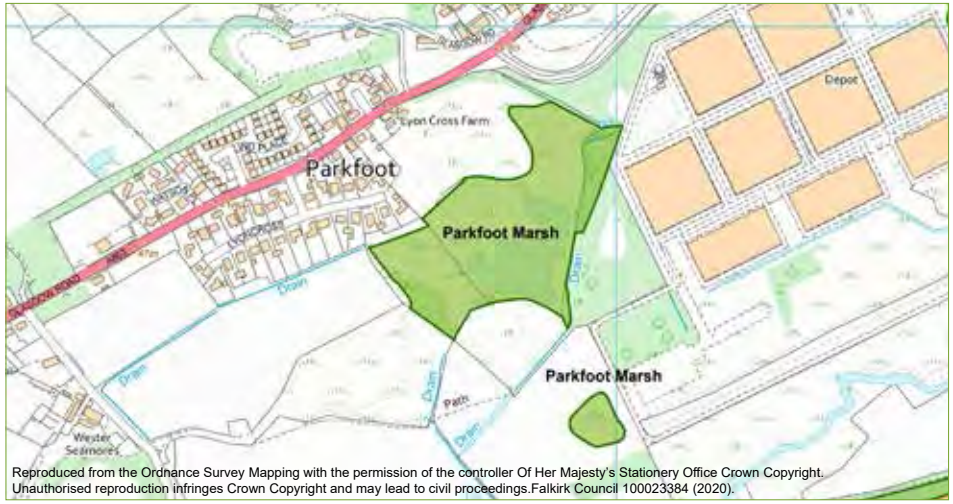
The site exhibits high habitat diversity, including nationally rare raised bog and locally rare mire and heath habitats. The range of habitats, although heavily modified, support a rich mix of species.

The site is one of anetwork of peat and wetland sites across the Slamannan Plateau.

Conservation and Enhancement Opportunities

- Grazing management to reduce localised damage to habitats by trampling and enrichment.

38. Parkfoot Marsh



Grid Ref. NS 80863 79721

Area 5.3 Hectares

Key Features

Habitat (s)	Marsh Swamp Open water Grassland.
Species	160 plant species noted.
Connectivity	Close to Bonnyfield LNR and the Bonny Water, canal and railway corridors.
Community	Very limited use.

Description

Parkfoot marsh sits in a small depression below a natural embankment to the north. It is a complicated mosaic of wetland habitats including rich fen, open water, swamp, carr scrub and marshy grassland.

It is part of a wider network of sites linked by the Bonny water and canal and railway corridors and is close to Bonnyfield LNR.

Nature Conservation Summary

This site supports a rich diversity of wetland habitats, some of which are locally rare. The area is considered a relic of wetland habitat that was historically much more common within the area.

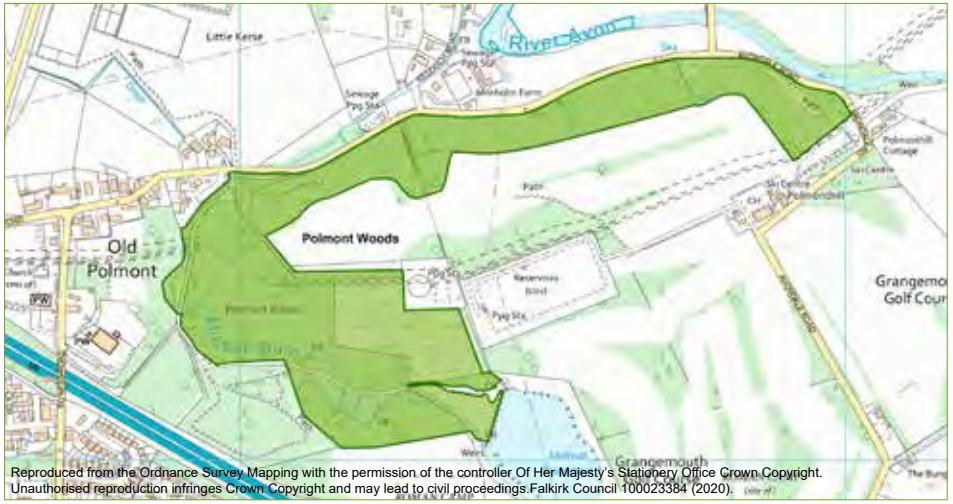
The species diversity of the site is quite high, both for flora and fauna. This includes a number of locally rare plant species.

The site is well connected to nearby wildlife corridors and linked to the nearby Bonnyfield LNR by areas of unimproved grassland.

Conservation and Enhancement Opportunities

- Avoid further encroachment or damage by housing development;
- Avoid alterations in the site drainage to retain water levels.

39. Polmont Woods



Grid Ref. NS 94288 79343

Area 20.2 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Conifer woodland Scrub Unimproved neutral grassland Ponds and burn.
Species	Bat, otter, woodland birds.
Connectivity	Part of a wider habitat network linking woodland to the east and south.
Community	Easy access, well used by people, active management group.

Description

Polmont woods comprises woodland, scrub and grassland in a continuous band following the steep northern brae of Polmont hill. It also includes a number of settling ponds and the Millhall Burn.

The core ash-elm woodland appears to be long-established, while the western slope supports conifer plantation.

There are some extensive areas of quite varied neutral grassland, often with associated scrub.

Nature Conservation Summary

The sites supports a high diversity of habitats including locally rare swamp. The habitat diversity is enhanced by the presence of the ponds, burn and burn-side woodland habitats.

The sites central area of semi-natural woodland is of particular interest and supports species of interest and of some local rarity. A particularly rich area of flora has developed beneath the pylons where trees are not allowed to grow tall.

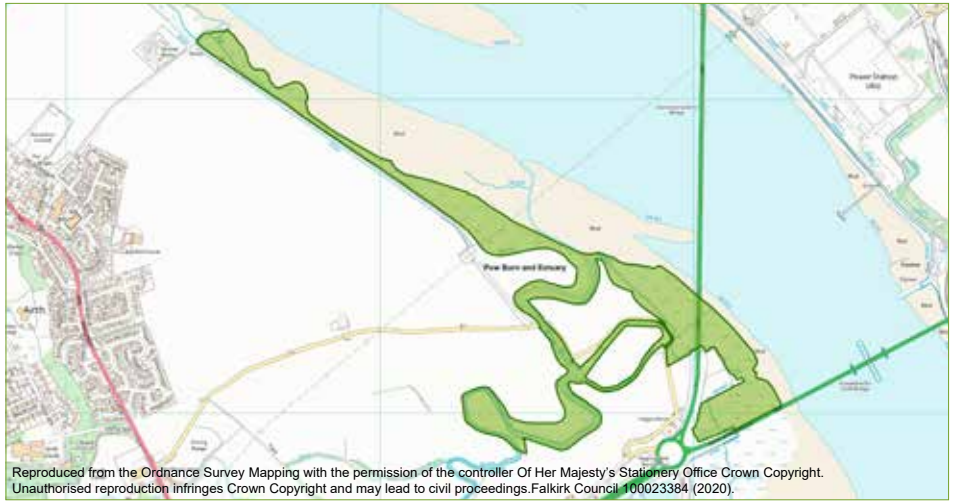
The sites species diversity is high. Species such as otter and bats have been noted and the site is likely to be important for breeding birds and a range of aquatic plants and animals.

The site connects to wider openspace (Polmont Golf Course) and woodland networks to the east and south.

Conservation and Enhancement Opportunities

- Consider enhancement of the newer planted woodland to the south-west of the site and inclusion of this in the wildlife site;
- Control invasive non-native species such as Himalayan balsam;
- Manage grassland area to the south-east to benefit wildlife;
- Continue beneficial woodland management.

40. Pow Burn and Estuary



Grid Ref. NS 91579 87358

Area 27.1 Hectares

Key Features

Habitat (s)
Saltmarsh
Grassland
Brackish running water.

Species
Diverse bird species.

Connectivity
A key part of the Firth of Forth SPA.

Community
Site bounded by footpath.

Description

This site lies on the western edge of the Forth estuary close to the Clackmannanshire Bridge, where the Pow Burn enters the Forth.

The habitats at this site are influenced by the brackish water along the Pow Burn and the adjacent Forth Estuary. They are predominantly saltmarsh with some other, mostly grass-dominated habitats. The saltmarsh represents an extension of the similar habitat lying to the south, and forms a relatively narrow strip of habitat along the coastline.

Nature Conservation Summary

The site supports a significant extent of saltmarsh and inundation habitat which are locally rare.

Although the site does not support any particularly rare plant species it does support typical saltmarsh plant species and is of interest for animals, particularly those associated with inter-tidal habitats.

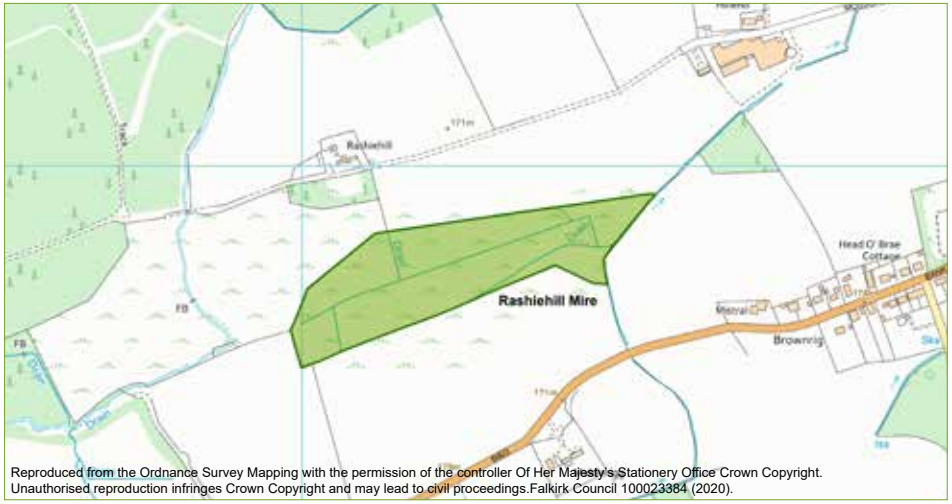
A wide range of bird species are associated with the inter-tidal habitat.

The site is an important part of the corridor of intertidal habitat along the edge of the Forth estuary and linked to the Firth of Forth Special Protection Area.

Conservation and Enhancement Opportunities

- Avoid damage to the saltmarsh habitat by inappropriate landuse or management;
- Reassess site boundaries and habitat present around the site of the (relatively newly constructed) Clackmannanshire Bridge.

41. Rashiehill Mire



Grid Ref. NS 84225 72844

Area 6.1 Hectares

Key Features

Habitat (s)	Raised and modified bog Basin mire Unimproved acid grassland Conifer plantation.
Species	Good range of higher plants and mosses.
Connectivity	Part of a complex of raised bog sites on the Slamannan plateau.
Community	Little or no recreational use.

Description

Rashiehill mire is a small area of raised bog situated in improved agricultural fields to the west of Slamannan.

The relatively narrow, raised peat area is fairly dry as a result of past drainage but has an intact surface.

The bog is surrounded by a narrow belt of marshy and acid grassland, with a strip of conifer planting on the northern edge.

Nature Conservation Summary

This site supports nationally rare raised bog making it of ecological value despite its small size.

Marshy strips around the edge of the site add to its habitat diversity.

There is a good range of higher plants and mosses present.

This site is one of a complex of bog sites across the Slamannan Plateau.

Conservation and Enhancement Opportunities

- Manage grazing levels to limit damage from poaching and heavy grazing;
- Block drains (or leave unmaintained) to keep the site wet;
- Remove scrub and saplings if they invade the bog habitat.

42. Righead

Grid Ref. NS 90432 74152

Area 16.1 Hectares

Key Features

Habitat (s)	Raised and modified bog Basin mire Semi-improved and unimproved grassland Woodland and scrub.
Species	High plant species diversity. Several LBAP species present.
Connectivity	One of a series of raised bogs on the Slamannan Plateau.
Community	Little or no recreational access.

Description

This site consists of two areas of peat; a larger area of raised bog (half of it intact and half damaged) and a smaller area of basin mire isolated to the south-west by a rocky ridge.

The main raised bog sits in a basin area with improved pasture to the north. The eastern half is intact and supports an extensive cover of sphagnum dominated bog. A strip on the north-east boundary supports marshy grassland and scrub.

The basin mire, to the south-west, is largely surrounded by acidic grassland with a block of semi-natural woodland to the south.

Nature Conservation Summary

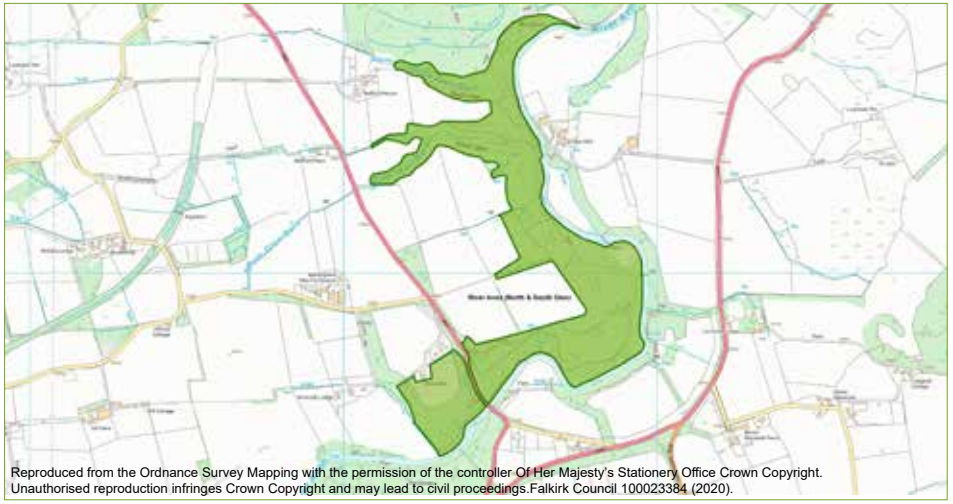
The raised bog habitat (particularly the intact, sphagnum dominated eastern section of the bog) is nationally rare and of high conservation value.

The locally rare basin mire and the associated rocky outcrop add to the habitat diversity of the site.
The site has a higher than average species diversity, with over 84 plant species recorded.

Conservation and Enhancement Opportunities

- Restrict grazing on eastern section of bog, particularly while it recovers from recent burning, and prevent further burning;
- Seek advice about restoration of eastern bog following recent burning;
- Manage grazing levels in south-west to prevent habitat damage;
- Investigate restoration of the degraded north-west section of bog.

43. River Avon (North & South Glen)



Grid Ref. NS 95560 74064

Area 34.4 Hectares

Key Features

Habitat (s)	Broadleaved and mixed woodland Scrub Grassland.
Species	42 locally notable plant species.
Connectivity	Significant part of the River Avon woodland corridor.
Community	River Avon Heritage Trail runs through site.

Description

This extensive site is dominated by mainly broadleaved (semi-natural and plantation) woodland growing within the steep gorge descending down to the River Avon. The site also supports areas of mixed woodland plantation, scrub and marshy grassland.

The site includes a significant area of semi-improved neutral grassland at its southern end.

The River Avon Heritage Trail runs through the site and Muiravonside Country Park is just to the north.

Nature Conservation Summary

The site supports a wide variety of habitats including extensive long-established broadleaved woodland.

The woodland is structurally diverse with many mature trees and a good proportion of standing and lying deadwood.

A high number of plant species have been recorded (183), including 42 notable species (9 of them locally rare). The site is likely to be important for bats, otter, woodland birds and invertebrates.

The site is part of an important riparian woodland habitat corridor running along the River Avon and linking with the wooded glens of several smaller watercourses and with Muiravonside Country Park to the north.

Conservation and Enhancement Opportunities

- Clear some dense areas of beech regeneration and establish native species such as oak to reduce dominance of beech;
- Control invasive species such as Japanese Knotweed and Himalayan balsam;
- In places clear dense scrub from electricity wayleaves to provide open glades of benefit to invertebrates.

44. Roughcastle

Grid Ref. NS 84343 79965

Area 74.8 Hectares

Key Features

Habitat (s)

Broadleaved semi-natural woodland
Parkland
Scrub
Acid and neutral grassland
Marshy grassland
Valley mire
Standing and running water
Heath
Swamp.

Species

Good species diversity.

Connectivity

Core part of an extensive habitat network.

Community

Well used public open space.

Description

Roughcastle is a very extensive site situated between the Forth & Clyde canal and the Edinburgh-Glasgow railway line, to the west of Falkirk and east of Bonnybridge.

Although dominated by broadleaved woodland, the site also supports a range of other habitats including grassland, running and open water, heath, mire and scrub.

The site has high amenity value, particularly associated with the historic interest of the Antonine Wall.

Nature Conservation Summary

The extent of semi-natural woodland at this site, particularly given its urban fringe setting, is of local importance.

The site supports a diverse mix of habitat types including locally rare open water, heath and swamp. Some of the unimproved grassland habitats are also of note. The woodland itself is very diverse ranging from mature oaks in a parkland setting to dense developing birch scrub and areas of wet woodland.

The site has high plant species diversity. It is also likely to be important for bats, breeding birds and invertebrates.

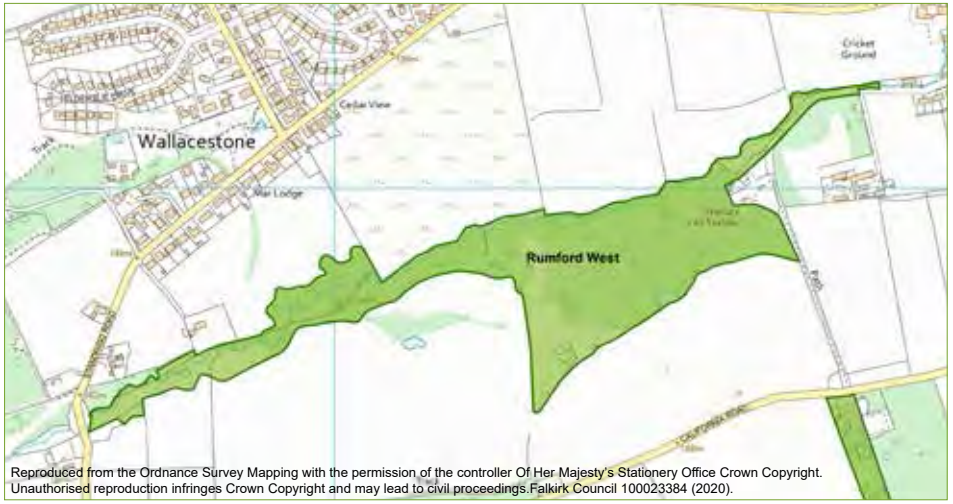
The woodlands form an almost continuous band of habitat from Tamfourhill in the east and covering around 2km, creating an important habitat corridor.

The site also serves to connect wildlife corridors along the canal and railway lines, creating an extensive habitat network.

Conservation and Enhancement Opportunities

- Woodland management to favour native species and encourage ground flora and structural diversity;
- Improve water quality of St Helen's Loch by reducing enriched run-off;
- Manage grazing at Elf Hill to reduce trampling pressure around the loch and damage to the heath area;
- Scrub control in areas of grassland, wet heath and mire;
- Grazing management to allow woodland regeneration and maintain grasslands.

45. Rumford West



Grid Ref. NS 92315 76864

Area 12.3 Hectares

Key Features

Habitat (s)	Scrub and woodland Unimproved grassland Heath Swamp Species-rich hedge with trees.
Species	High plant diversity.
Connectivity	Important habitat corridor along Gardrum Burn.
Community	Limited recreational use.

Description

Rumford West consists of a mosaic of scrub and grassland habitats associated with the Gardrum Burn and a disused quarry south of the burn.

There are also rarer woodland elements occurring on steep slopes along the burn. A few small ridges with relic heath or acid grassland, local marshy flushes, patches of open bracken and some swamp at an old reservoir also occur.

The site forms a key element of the wildlife corridor running along the Gardrum Burn.

Nature Conservation Summary

The site, although limited in extent, supports a range of different habitat types including locally rare swamp, heath and species-rich hedgerow.

The areas of unimproved relic acid grassland are also of note and support a good range of acidic species. Species diversity is high with 174 plant species recorded. This includes locally rare purple osier. The scrub habitat is also likely to be particularly valuable for breeding birds.

This site is important for the role it plays in the habitat corridor along the Gardrum Burn; a habitat corridor which is particularly important due to the relatively built-up areas and improved agricultural fields through which it passes. This corridor links the upper Slamannan Plateau in the west to the lowlands (including the open habitats of Rumford East SINC) to the east.

Conservation and Enhancement Opportunities

- Selective scrub removal to maintain areas of relic grassland;
- Introduce a grazing regime to manage the relic grassland areas;
- Control Japanese Knotweed (to the east of the site).

46. Seabegs Wood

Grid Ref. NS 81534 79291

Area 10.3 Hectares

Key Features

Habitat (s)	Broadleaved woodland Scrub Unimproved grassland Heath Basin mire Parkland Running water.
Species	High plant species diversity. Abundant bluebells.
Connectivity	Key site on the Forth & Clyde canal wildlife corridor.
Community	Historically important site with public access.

Description

The eastern half of Seabegs Wood is dominated by broadleaved semi-natural woodland. To the east and south of this woodland are small areas of grassland, mire and heath although these are diminishing in size as the woodland habitat develops. The western half of the site sits on the Antonine wall, with the earthworks associated with the wall clearly visible. Here the habitat is primarily parkland with maturing oak trees, however strips of semi-natural woodland provide boundaries to the north and south.

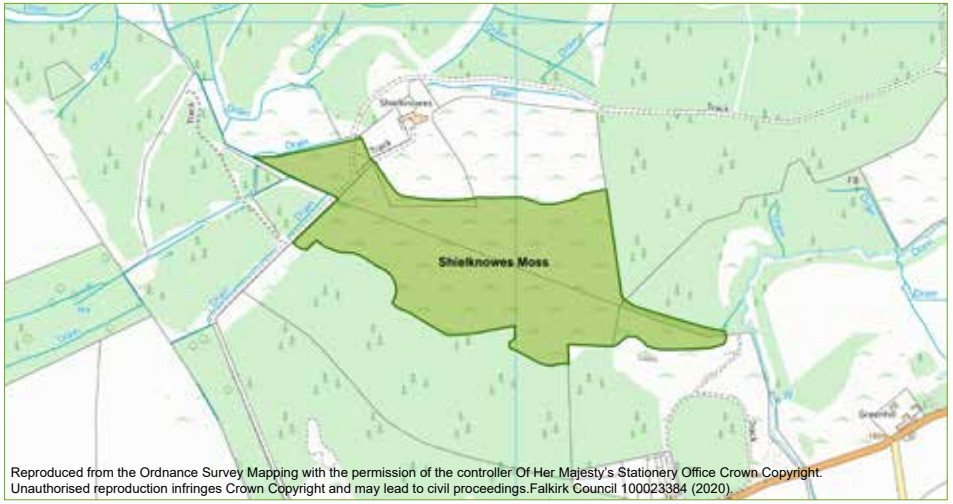
Nature Conservation Summary

Although small in scale, this site supports a very diverse range of habitats. This includes locally rare basin mire and heath.
Even the areas of close cropped grass on the Antonine Wall provide added diversity and wildlife value.
The maturing oaks are of ecological interest in themselves.
The species diversity is high - 136 higher plants and 34 mosses and lichens, with several species of local interest. Potentially important for bats, woodland birds and invertebrates. Abundant bluebell in the spring.
The site exhibits abundant natural regeneration with oak and hazel doing well. It provides a valuable stepping stone on the wildlife corridor of the Forth and Clyde canal.

Conservation and Enhancement Opportunities

- Preserve some of the more open habitats (grassland, mire and heath) by controlling scrub and bracken to create varied woodland glades;
- Block drains within the basin mire to retain high water levels;
- Manage grass cutting regime to benefit bluebell and other biodiversity.

47. Shielknowes Moss



Grid Ref. NS 82891 72609

Area 12.7 Hectares

Key Features

Habitat (s)	Raised Bog Basin Mire Marshy grassland.
Species	White beaked sedge (locally rare), bumblebees.
Connectivity	One of a series of bog sites on the Slamannan Plateau.
Community	Little or no recreational use.

Description

Shielknowes is a large area of raised bog and lagg fen, situated in a shallow valley on the Slamannan Plateau. It is surrounded by commercial forestry and agricultural fields.

Part of the eastern section of the bog has been lost to commercial forestry and is not therefore included within the wildlife site boundary.

Nature Conservation Summary

The nationally rare raised bog habitat has an intact surface and typical marginal lagg areas. There is high quality and diverse bog vegetation and structure.

Habitat diversity is enhanced by the locally rare basin mire and the presence of marshy grassland and pockets of neutral and acid grassland.

Total species diversity is high with a good range of sphagnum (12 species). Species of note include white-beaked sedge (not previously recorded in the Falkirk area), marsh arrow-grass, blushing bog moss and white cushion moss. Good numbers of bumblebees have been noted from the site.

The site is one of a series of bog sites across the Slamannan Plateau.

Conservation and Enhancement Opportunities

- Block drainage ditches to raise the water level of the bog;
- Prevent further scrub encroachment;
- Fence to allow management of grazing levels;
- Avoid impacts from further forestry on or next to the site.

48. Skipperton Glen

Grid Ref. NS 80882 78512

Area 7 Hectares

Key Features

Habitat (s)
Broadleaved semi-natural woodland
Scrub
Grassland
Standing and running water.

Species
High plant species diversity.

Connectivity
Important wildlife corridor.

Community
Limited accessibility.

Description

Skipperton Glen is a linear corridor about 1km long through which the Skipperton Burn flows. The steep, narrow valley is wooded on both sides and supports a range of habitats including broadleaved woodland, grassland, bracken, scrub and standing and running water. There are also areas of scrubby woodland on the embankments where two railway lines cross the site.

The surrounding land is primarily improved agriculture.

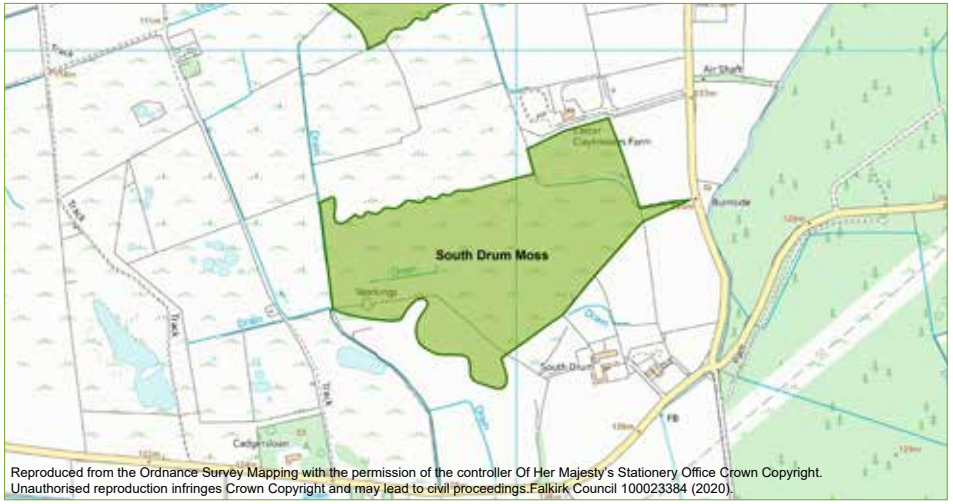
Nature Conservation Summary

Although dominated by broadleaved woodland the sites habitat diversity is enhanced significantly by the presence of a range of grassland types, scrub, pond and running water.
The northern half of the site is listed as ancient woodland and despite past disturbance and some grazing semi-natural conditions prevail.
Species diversity is high, with a total of 148 species of plant recorded.
A good range of woodland mammals, birds and amphibians are likely to occur on site.
The site plays an important habitat corridor role, linking the Forth and Clyde canal and two railway corridors, as well as following the Skipperton Burn corridor.

Conservation and Enhancement Opportunities

- Selective scrub clearance to maintain open grassland areas;
- Woodland management to encourage a diverse age structure and ensure successful regeneration of native tree species;
- Avoid disturbance by heavy grazing or dumping.

49. South Drum Moss



Grid Ref. NS 82931 77727

Area 11.6 Hectares

Key Features

Habitat (s)	Raised bog Wet heath Basin mire Grassland.
Species	Hen Harrier. Typical bog species including sphagnum.
Connectivity	Linked to South Drum Claypit SINC and Wester Drum Wildlife Site.
Community	Little or no recreational access.

Description

This peatland site consists of a relic low dome area of relatively intact raised bog, with similar mire vegetation on the gentle slopes around the raised bog.

To the north of the site acidic grassland drains into the mire. To the west the site includes an area of heath vegetation with patches of acid grassland.

The surrounding landuse is improved agricultural to the east and south.

South Drum Claypit SINC is immediately adjacent to the west, with other designated sites nearby to the north and west.

Nature Conservation Summary

The nationally rare raised bog habitat appears intact and supports a good range of typical raised bog species including characteristic sphagnum mosses.

Habitat diversity is enhanced by the presence of locally rare basin mire and heath as well as areas of acid grassland.

The site supports large patches of bog asphodel and is known to have been used by juvenile hen harrier.

This site is connected to the South Drum Claypit SINC (to the west) which connects to Wester Drum a little further north, thus creating a significant area of high quality habitat.

Conservation and Enhancement Opportunities

- Monitor scrub to ensure it does not spread to the detriment of the site;
- Ensure future grazing regimes do not damage the site;
- Block drains to maintain and increase water levels within the bog.

50. South Torwood

Grid Ref. NS 82776 83505

Area 8.7 Hectares

Key Features

Habitat (s)	Unimproved acid grassland Semi-improved neutral grassland Marshy grassland Heath Scrub Basin mire.
Species	High species diversity.
Connectivity	Part of a wider mosaic of grassland and woodland sites.
Community	Little or no recreational use.

Description

This site comprises a relic area of relatively unimproved acid grassland with wet heath, lying on the upper slopes of the low hillside to the east of Denny.

There are several strips of more neutral rush grassland, where pipelines have previously been laid. To the north lies the extensive conifer plantation of Torwood, while to the southeast the site is bounded by broadleaved woodland.

Nature Conservation Summary

Areas of unimproved acid grassland and heath of this sort are locally rare.

Habitat diversity is enhanced by the range of grassland, heath, scrub and mire habitats present. The species diversity of the site is high.

The small area of mire vegetation exhibits good species diversity, including many species of local interest such as marsh lousewort, fen bedstraw, bristle club-rush, flea sedge and few-flowered spikerush.

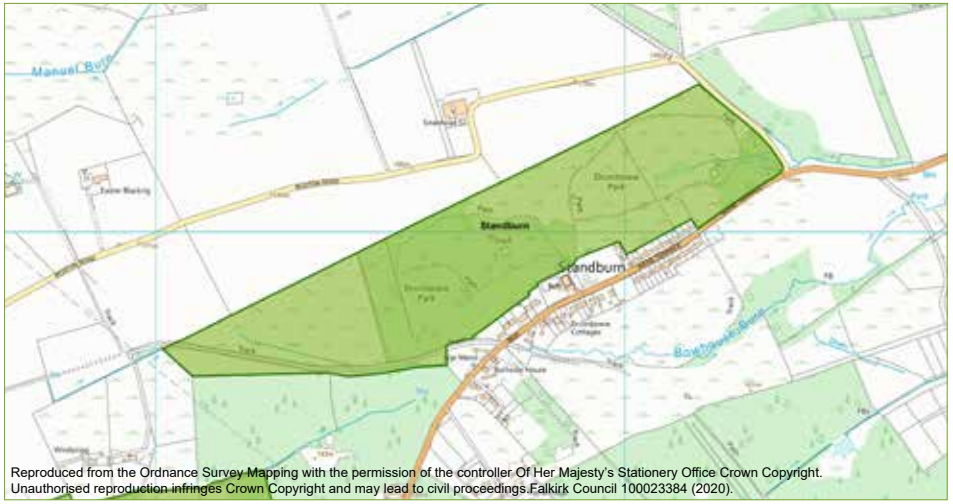
While the species richness of the grassland may have deteriorated as a result of limited grazing, overall it is still considered to be of high interest.

This site sits within a wider mosaic of local woodland and mire sites adding to its nature conservation value.

Conservation and Enhancement Opportunities

- Introduce a grazing regime to maintain the habitat quality and diversity;
- Control scrub;
- Protect mire habitat from drainage.

51. Standburn



Grid Ref. NS 92720 74965

Area 29.6 Hectares

Key Features

Habitat (s)
Broadleaved woodland
Scrub
Unimproved acid and neutral grassland
Ponds
Swamp
Spoil.

Species
Great crested newt. High plant diversity.

Connectivity
Part of a wider habitat network.

Community
Well used with an extensive path network.
Active community management group.

Description

This site contains a mix of grassland and woodland/scrub habitats on a south facing hillside and more level southerly areas.

The habitats have developed over agricultural areas and an extensive area of mine spoil, and several areas of spoil material and barer ground still exist.

The grassland is very variable ranging from neutral through to acidic with differing drainage conditions. There are a few distinct marshy depressions and a number of ponds with associated swamp vegetation.

The site is managed by a local community group for recreation and conservation.

The site is largely surrounded by farmland with forestry plantation to the southwest and the village of Standburn along its southern edge.

The site connects to areas of forestry and tree belts within the wider countryside to form a quite extensive habitat network within the agricultural landscape. It may also be part of a network of ponds and wetlands linking this great crested newt site to others near Muiravonside and Avonglen.

Nature Conservation Summary

This extensive site exhibits high habitat diversity and includes locally rare swamp habitat.

The various unimproved grassland habitats are also of note.

Species diversity is high, with over 120 plant species recorded. This includes locally rare species and the LBAP priority species whorled caraway.

Nationally rare great crested newts have also been recorded breeding within the largest pond on the site.

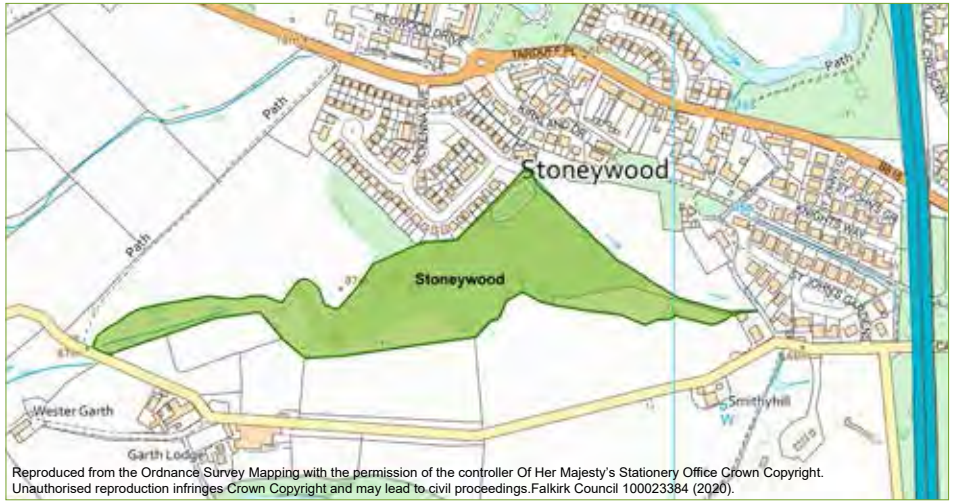
The mix of habitats is likely to be of value for breeding birds and invertebrates.

The site forms part of a wider network of woodland habitats and may form an important part of a network of habitat used by great crested newts.

Conservation and Enhancement Opportunities

- Retain areas of quality grassland;
- Develop a suitable grassland management regime;
- On-going pond management and additional pond creation for newts;
- Retain 'sanctuary' areas where disturbance is limited;
- Control invasive species like Himalayan balsam.

52. Stoneywood



Grid Ref. NS 79722 82594

Area 5.2 Hectares

Key Features

Habitat (s)	Scrub and woodland Neutral grassland Marshy grassland Swamp Running water.
Species	Good plant diversity.
Connectivity	Localised wildlife corridor along burn.
Community	Access difficult.

Description

The site is centred around a small valley, much disturbed by past mine workings but now showing habitat recovery and development.

The site supports a mosaic of habitats including scrub, woodland, marsh, small watercourses/ ditches and grasslands.

A SUDs pond has been created in the north tip of the site as part of a recent neighbouring development.

Much of the surrounding landscape is agricultural, however recent residential development has taken place to the immediate centre north of the site.

Nature Conservation Summary

This site supports a diverse range of habitats, including locally rare swamp. The marshy willow carr is also of high local interest.

The species diversity is quite high (146 plants recorded). These include a number of locally rare plants such as common hawkweed and marsh horsetail.

The range of habitats present is likely to be of value to breeding birds.

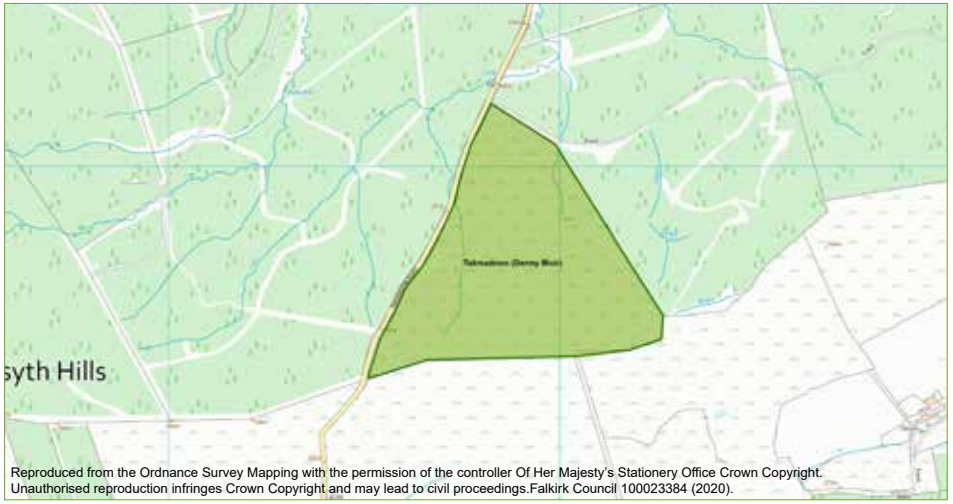
A lack of intensive management and a long period of recovery has allowed relatively semi-natural habitat to develop.

The site, located along a small valley creates a local stretch of habitat corridor and is important in the context of other local wooded valleys along the River Carron and the Castlerankine burn.

Conservation and Enhancement Opportunities

- Assess wildlife value of the SUDs pond and enhance if possible;
- Manage grazing to avoid poaching of wetter areas;
- Continue grazing of grasslands to inhibit scrub development.

53. Takmadoon (Denny Muir)



Grid Ref. NS 73895 81745

Area 28 Hectares

Key Features

Habitat (s)	Valley mire Acidic grassland Neutral grassland Marsh and flushes Heath.
Species	High species diversity.
Connectivity	Part of an extensive area of grass moorland along the Kilsyth Hills.
Community	Open access.

Description

This site supports a large and very complex mosaic of vegetation, much of it best described as acidic grassland dominated mire. Other vegetation types include acidic grassland on rocky outcrops/ridges, rush dominated marsh, neutral grassland, wet heath and short sedge dominated flushes.

The site occupies a steep north facing slope, the southern boundary running along the summit ridge of the Kilsyth Hills.

The surrounding land supports extensive commercial forestry plantation with some rough grazing to the south and east.

Nature Conservation Summary

This is an extensive and diverse site supporting a range of semi-natural habitats such as the locally rare mire and heath vegetation.

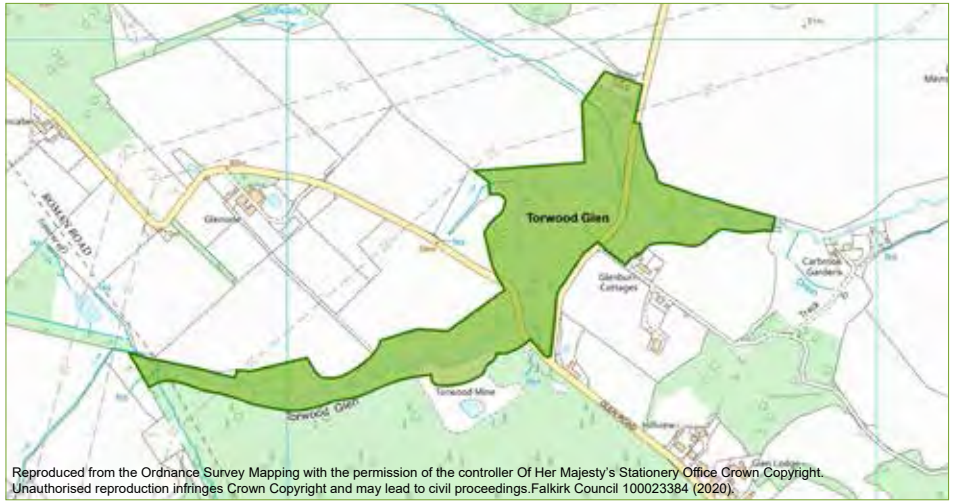
The site has high species diversity with notably species rich areas. The flush habitats are of particular note with very high species diversity and local rarities including: dioecious sedge, marsh arrowgrass, flea sedge, fen bedstraw, few-flowered spikerush, knotted pearlwort, plus mosses such as rigid bogmoss, thick-nerved applemoss, tree moss and giant spearmoss.

The site forms part of a larger mosaic of grass moorland, mire and woodland habitats associated with the nearby Denny Muir SSSI and the Kilsyth hills.

Conservation and Enhancement Opportunities

- Manage grazing to maintain and improve habitat quality and species diversity;
- Retain poor drainage.

54. Torwood Glen



Grid Ref. NS 83389 85629

Area 12.4 Hectares

Key Features

Habitat (s)	Broadleaved woodland Semi-natural conifer wood Running water.
Species	Purple hairstreak. High plant diversity.
Connectivity	Part of the Tor Burn wildlife corridor.
Community	Difficult to access.

Description

This site is dominated by broadleaved semi-natural woodland, associated with the steep sided valley of the Tor Burn. There are a few open glades and some localised flushes. The burn runs west-east through the site with occasional marshy areas immediately next to it. The surrounding landscape is primarily improved agriculture, with the dense conifer plantation of Torwood to the south. Although the northern side of the glen is within the Stirling Council area, the site should be viewed as one ecological unit.

Nature Conservation Summary

Although the site is dominated by semi-natural oak-birch woodland, the habitat diversity is enhanced by small areas of semi-natural conifer woodland, open glades with grass and bracken, scrub, neutral grassland, running water and marshy areas associated with the burn. The semi-natural conifer woodland is locally rare and the extent of long-established semi-natural broadleaved woodland is also of local importance.

Species diversity is high, with 167 plant species recorded including several local rarities such as Brown's four-tooth moss. Purple hairstreak butterfly has also been recorded.

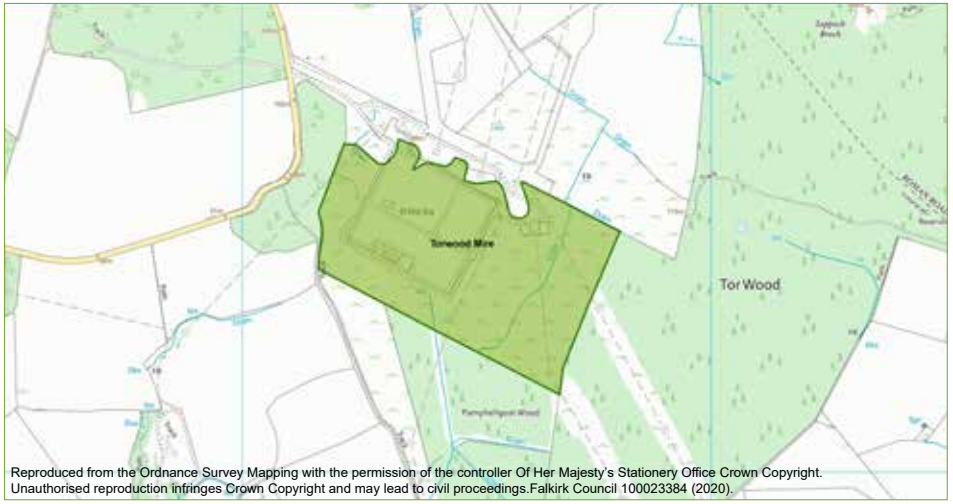
The site is likely to be important for woodland birds, mammals and invertebrates, particularly in association with the extensive Torwood plantation.

The semi-natural broadleaved woodland of Torwood Glen represents a remnant of the woodland that would have occupied much of Tor wood prior to the commercial forestry plantation. The site is an important element of the wildlife corridor along the Tor Burn and is close to Plean Country Park to the north.

Conservation and Enhancement Opportunities

- Favour planting of broadleaved woodland in any felled areas adjacent to the glen to the south;
- Encourage rhododendron control to the east of the site (with native tree planting in cleared gaps);
- Take opportunities for broadleaved planting to extend the corridor to the west towards Dales Wood;
- Avoid encroachment from the quarry or from other development at the quarry site.

55. Torwood Mire



Grid Ref. NS 82470 84472

Area 19.8 Hectares

Key Features

Habitat (s)	Raised and modified bog Basin mire Heath Unimproved grassland Woodland and scrub.
Species	Average species diversity. Round-leaved sundew (LBAP priority).
Connectivity	Links to Dales wood and Torwood.
Community	Limited access.

Description

Torwood mire occurs on the low hills to the north of Denny near Torwood.

The site supports acidic vegetation, dominated by raised bog habitat. In addition to raised bog there are areas of basin mire, modified bog, heath and grassland.

Until recently the site also included areas of forestry over peat. Some of these areas may have been felled in an attempt to reinstate peat bog vegetation as part of mitigation works associated with the substation construction.

Changes in the overall area and types of semi-natural habitat will have occurred as a result of the substation development but have not yet been mapped in detail.

The site is surrounded by forestry, agriculture and the substation to the north.

Nature Conservation Summary

This site supports a good range of habitats including nationally rare raised bog and locally rare heath and basin mire habitats.

Although the site has suffered disturbance it remains a good example of varied mire vegetation.

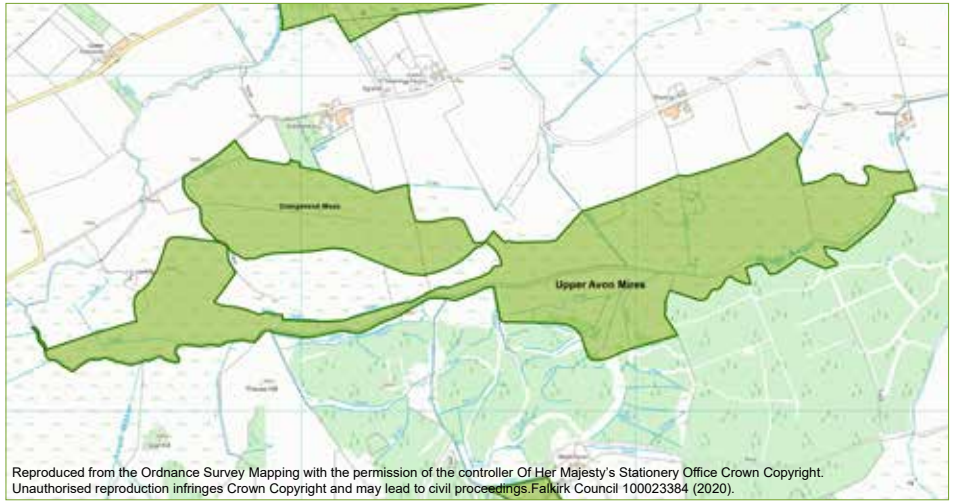
Although the species diversity is not particularly high it does include a good range of typical bog and fen species. The locally rare chickweed wintergreen has also been recorded.

The site is relatively isolated in terms of other bog sites; however it does lie next to Torwood and Dales Wood.

Conservation and Enhancement Opportunities

- Revise wildlife site boundary following completion of construction and bog management associated with the substation expansion;
- Implement bog management plan associated with substation development.

56. Upper Avon Mires



Grid Ref. NS 82749 73425

Area 52.8 Hectares

Key Features

Habitat (s)
Raised and modified bog
Basin mire
Heath
Marshy and unimproved grassland
Running water, swamp & flood plain.

Species
Locally rare and LBAP species present.

Connectivity
Connected to the River Avon corridor and Grangeneuk Wildlife Site.

Community
Little or no recreational access.

Description

This site is a complex area of wetlands, mainly to the north side of the channelled River Avon.

The wetlands have developed on a low lying floodplain, formerly fed by the meandering river channel.

The eastern part of the site comprises mainly basin mire, raised bog and heath on steep slopes. In the western part of the site, as well as the rich and complicated mosaic of wetland habitats, there are a few mineral ridges supporting acid grassland and heath.

The site is surrounded by semi-improved pasture and conifer plantation to the southeast.

Nature Conservation Summary

This large, complex site supports a high diversity of habitats including nationally rare raised bog and locally rare basin mire, swamp, and heath.

Species diversity is likely to be high (assisted by the wide range of habitats present) and includes a number of local rarities such as marsh lousewort, creeping willow, knotted pearlwort, fen bedstraw, flea sedge and golden rod and a good range of mosses including Sphagnum teres and climacium dendroides.

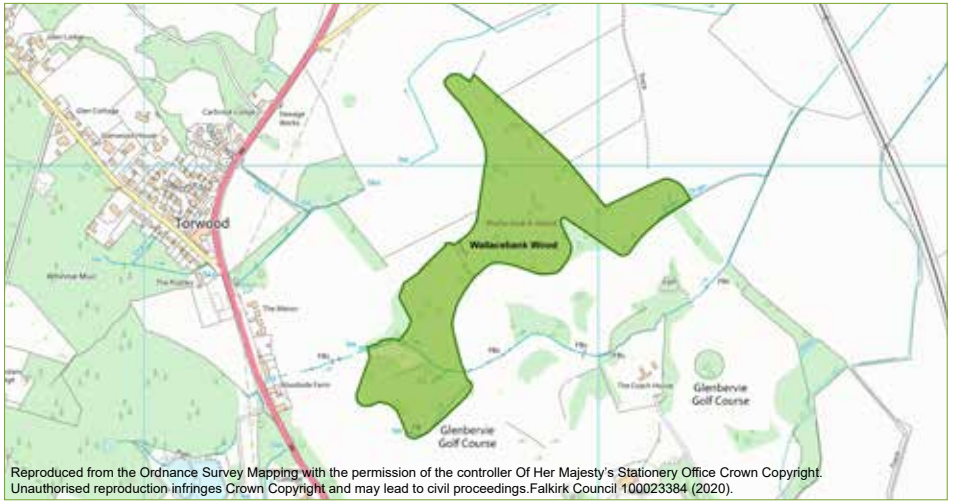
A number of LBAP priority species are present including hen harrier, harebell and ragged robin. The site follows the corridor of the River Avon and is connected to Grangeneuk wildlife site to the north.

Despite previous peat cutting and drainage, the water table of the site appears quite high, perhaps enabling recovery from past vegetation damage/drying.

Conservation and Enhancement Opportunities

- Ensure old drainage ditches remain unmaintained and block if necessary;
- Continue to manage grazing levels to inhibit scrub growth but avoid excessive trampling or over-grazing.

57. Wallacebank Wood



Grid Ref. NS 84776 84807

Area 15.6 Hectares

Key Features

Habitat (s)	Broadleaved woodland.
Species	Interesting invertebrate populations. Bluebell.
Connectivity	Connects to wider parkland/golf course landscape at Glenbervie.
Community	Limited recreational use.

Description

Wallacebank wood is a large lowland oak woodland. Most of the site supports ancient woodland, with blocks of long-established woodland of plantation origin to the north and south ends. Several shallow streams run through the woodland.

The site is surrounded on three sides by Glenbervie golf courses, with improved pasture to the north.

The site is actively managed by the Scottish Wildlife Trust.

Nature Conservation Summary

While not a huge site, Wallacebank wood represents one of the largest remnants of oak woodland in the Falkirk Council area and a significant block of ancient woodland.

The site has limited habitat diversity (dominated by oak woodland), but habitat interest is added by small areas of grassland and bracken and by a number of small watercourses and associated wetter areas.

Plant species diversity is good with over 100 higher plant species recorded including the locally rare wood millet grass. Fauna records include 25 woodland bird species, 75 species of butterfly and moth, and 77 spider species. Of the spider species one (Cicurina cicur) has not been recorded elsewhere in Scotland and 8 are new records for the Stirlingshire area.

Work to remove Rhododendron appears to have been successful and may lead to improved ground flora diversity.

The parkland setting of the site enhances the value of the woodland habitats.

This is an important site in the context of other woodland sites across the Torwood - North Larbert area, including Torwood Glen Wildlife Site.

Conservation and Enhancement Opportunities

- Encourage regeneration of native tree species by protecting saplings;
- Prevent re-establishment of rhododendron ponticum;
- Retain standing and lying deadwood on the site.

58. West Mains Pond

Grid Ref. NS 90618 81552

Area 10.1 Hectares

Key Features

Habitat (s)	Open water Swamp Marshy grassland Neutral grassland Broadleaved woodland.
Species	High plant diversity.
Connectivity	Part of Helix Park and next to canal.
Community	High recreational use.

Description

Most of West Mains Pond now sits within the main Helix Park site, adjacent to the Forth and Clyde canal.

The site consists of a central wetland area of open water and marginal swamp vegetation. Adjacent to this are areas of relatively recently planted woodland and rough grassland. The north and northwestern part of this site has been impacted by developments associated with the canal extension and Helix park. This has resulted in a reduction in the area of woodland and rough grassland. However, the remaining parts of the wildlife site are now under active management as part of the Helix Park and improved access has been provided via a boardwalk.

The site is a core element of the extensive habitat network created by the Helix and the canal.

Nature Conservation Summary

While the core interest of this site is the open water and locally rare swamp habitat, the woodland and rough grassland help provide relatively high habitat diversity.

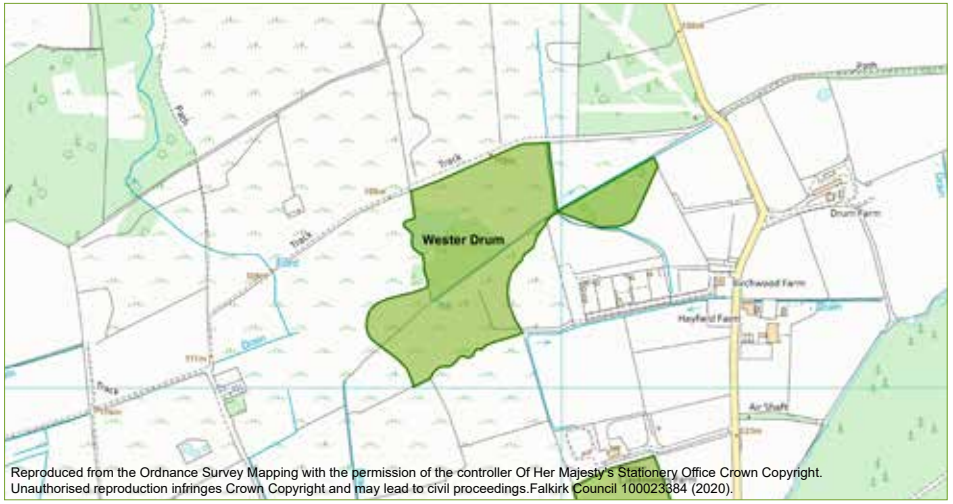
Species diversity is also reasonably high (over 100) and includes a few locally rare species - water speedwell, spiked water milfoil, hairy sedge and soft-stemmed bulrush. A good range of amphibian, bird and invertebrate species are likely to be associated with the mosaic of wetland, woodland and grassland habitats, particularly where disturbance can be limited.

The site occupies an important location within the wide habitat network created by the Helix and the canal and may act as a slightly less disturbed sanctuary for wildlife within the Helix Park area.

Conservation and Enhancement Opportunities

- Grassland management to enhance the neutral grassland habitat;
- Retention of a 'sanctuary' area where access is not encouraged;
- Retention of open water areas, by vegetation management if required;
- Woodland management to encourage age and structural diversity;
- Monitor water levels, which could be impacted by nearby developments.

59. Wester Drum



Grid Ref. NS 82913 78241

Area 7.2 Hectares

Key Features

Habitat (s)	Raised and modified bog Ponds and swamp Grassland Broadleaved woodland and scrub.
Species	High species diversity. Several local rarities.
Connectivity	Linked to South Drum Claypit SINC and South Drum Moss with other peatland/wetland sites nearby.
Community	Little or no recreational use.

Description

Wester Drum is a complex site with a mix of habitats including grassland, rush pasture, swamp, basin mire, raised and modified bog, ponds, scrub and broadleaved woodland. It occurs on undulating ground with locally wet areas.

The surrounding area is mainly agricultural, although much of it is not heavily improved.

Nature Conservation Summary

This site supports nationally rare raised bog and locally rare basin mire and swamp habitats. Given its limited extent the habitat diversity is particularly high.

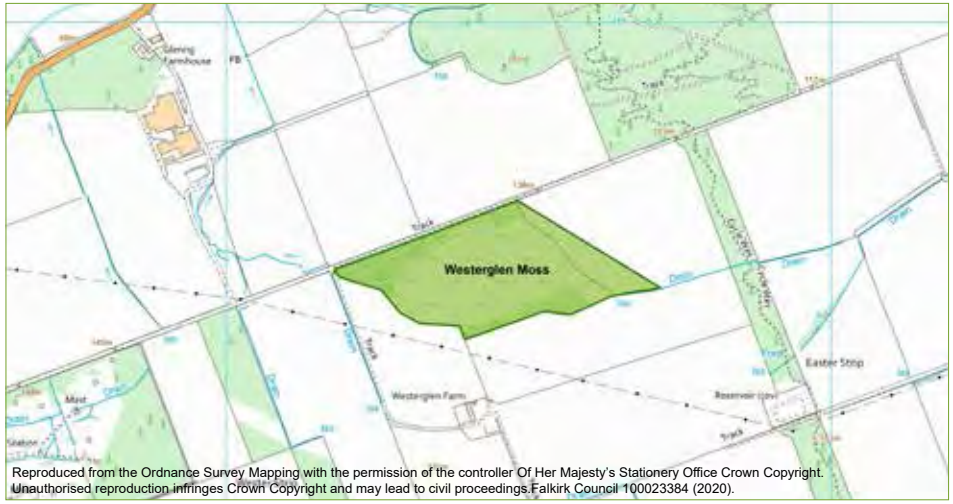
The mosaic of different habitats is key to the sites high conservation value. The ponds are likely to be of particular value to a range of birds, amphibians and invertebrate species.

Species diversity is higher than average and the habitats, particularly the swamp, support a number of local rarities.

Conservation and Enhancement Opportunities

- Undertake scrub/birch control within the mire habitat;
- Consider drain blocking to prevent drying out of the mire habitat.

60. Westerglen Moss



Grid Ref. NS 87418 77584

Area 6.2 Hectares

Key Features

Habitat (s)	Raised bog Modified bog Marshy and neutral grassland Broadleaved woodland and scrub.
Species	86 plant species including 3 local rarities.
Connectivity	Relatively isolated.
Community	Little or no recreational access.

Description

Wester Glen is a small lowland site consisting mainly of raised bog habitat, dominated by cotton-grass and with some sphagnum moss species.

The bog is surrounded by rush dominated marsh and marshy grassland with scattered willow carr and a small area of birch woodland.

The site is surrounded by improved agricultural fields.

Nature Conservation Summary

The dominant habitat at this site is nationally rare raised bog habitat.

The site exhibits moderate habitat diversity with the presence of marsh/ marshy grassland, woodland, willow carr/scrub, scattered trees, neutral grassland and raised and modified bog.

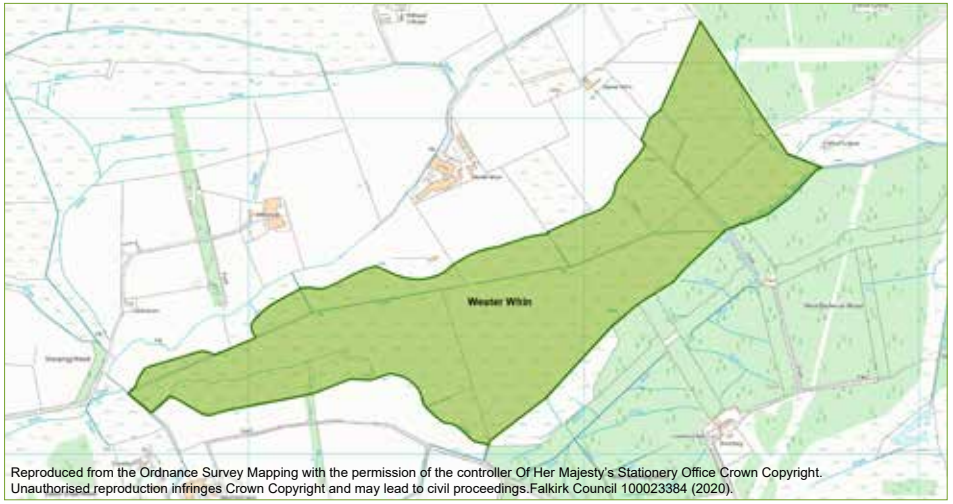
The site has high species diversity with 86 higher plant species recorded, including local rarities cranberry, bogbean and small sweet-grass.

The site is relatively isolated but represents one of the most easterly of a network of raised bog sites on the Slamannan Plateau.

Conservation and Enhancement Opportunities

- Consider drain blocking to increase water level in bog;
- Maintain low grazing levels to avoid excessive poaching from stock.

61. Wester Whin



Grid Ref. NS 86857 68545

Area 73.4 Hectares

Key Features

Habitat (s)	Raised bog Modified bog Basin mire Marshy and neutral grassland.
Species	Good species diversity. Typical bog species including roundleaved sundew.
Connectivity	Part of a much larger mire complex. Blawhorn and Black Loch Mosses nearby.
Community	Little or no recreational access.

Description

This site comprises the northern part of a much larger mire complex, located in the south-western corner of the Falkirk Council area. Much of the mire lies within West Lothian and is also a wildlife site, with the combined area in both districts totalling 70 hectares.

While the site is dominated by rasied bog habitat it does also support areas of basin mire and marshy grassland around its edges.

Nature Conservation Summary

The nationally rare raised bog habitat provides the core interest at this site.

The bog vegetation varies from marginal, drier and degraded vegetation to more typical, intact sphagnum bog vegetation. Despite past drainage the eastern section is now very wet and supports a good range of bog species including the LBAP priority round-leaved sundew.

Habitat diversity is average for a site of this type with interest added by the marginal basin mire and marshy grassland. There is a good species diversity (89 plant species recorded).

The site plays a particularly important role as part of a much larger mire complex and in association with the nearby nationally important raised bogs at Blawhorn and Black Loch Moss.

Conservation and Enhancement Opportunities

- Management of grazing levels to avoid overgrazing or heavy trampling;
- Block drains to re-wet drier parts of the bog.

62. Westquarter Burn

Grid Ref. NS 90653 78426

Area 23.3 Hectares

Key Features

Habitat (s)	Broadleaved woodland Scrub Neutral grassland Running water.
Species	High plant diversity.
Connectivity	Important wildlife corridor.
Community	Part well used for recreation and education.

Description

Westquarter Burn is a large riparian site with varied, although mainly semi-natural, broadleaved woodland.

In the south the steep-sided valley cuts through improved grassland and the burn crosses the Union canal. This section supports semi-natural broadleaved woodland. The central valley is relatively shallower and is now bounded on its southeast side by residential development and crossed by a new road bridge. On its north side is unimproved grassland.

The northern section of the site is steep-sided valley surrounded by residential areas. The woods here have been heavily disturbed but more recently have undergone some management.

The northern section of the site is well used by local people and has undergone some management by a local community group.

Nature Conservation Summary

While the site is dominated by broadleaved woodland, habitat diversity is increased by the grassland areas and the burn.

Much of the woodland is ancient semi-natural woodland. There are also significant blocks of long-established plantation woodland.

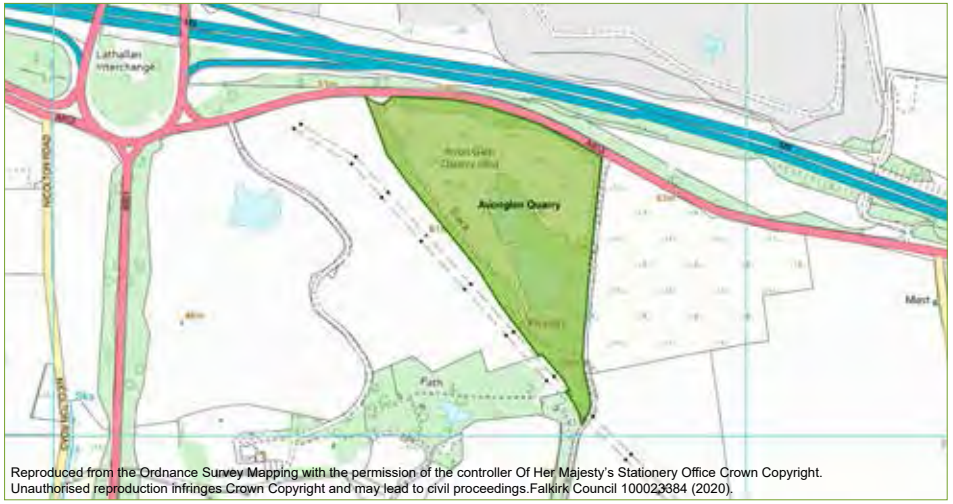
The site has high species diversity, with 199 plant species recorded. Species of interest include wood cranesbill and sanicle. The site is also likely to be of value for woodland birds and invertebrates.

The site forms an important wildlife corridor in its own right but also links to corridors along the Union Canal and railway lines. This role is particularly valuable in the urban fringe setting of Westquarter.

Conservation and Enhancement Opportunities

- Continue to control rhododendron ponticum;
- Control Himalayan balsam;
- Continue a suitable grazing regime on grassland areas;
- Woodland management in north to encourage semi-natural vegetation;
- Selective thinning may be undertaken in denser areas to the south.

63. Avonglen Quarry



Grid Ref. NS 95655 78322

Area 7.5 Hectares

Key Features

Habitat (s)	A regenerating sand and gravel quarry now supporting ponds, bare ground, broadleaved woodland, unimproved grassland, swamp and scrub.
Species	Great crested newts and other amphibians, invertebrates, woodland birds.
Connectivity	Part of a network of important sites for great crested newts. Linked to green corridors along the nearby motorway and railway, and to Haining Wood Wildlife Site and the Union Canal further south.
Community	Accessible with low level recreational use. Several conservation action and survey activities have occurred on site. Management supported by Falkirk Wildlife Conservation Group.

Description

This site is a disused sand and gravel quarry. The steep quarry sides are still visible, particularly to the north and east of the site. Since quarrying ceased in the late 1970's the site has returned to nature and now supports a range of pioneer and more established habitats including woodland, brownfield, grassland, scrub, ponds and swamp.

There are significant areas of brownfield habitat, although since the exclusion of trail bikes this has started to succeed to grassland and scrub. The site supports a complex of four ponds of varying sizes.

To the east and west the adjacent land use is pasture. To the south lies the abandoned grounds of Lathallan House with mature woodland and ponds. To the north lies the A803 and M9.

The site is connected to semi-natural habitat to the south (Lathallan House). A little further away is Haining Wood and the habitat corridors along the railway and canal, also to the south.

There is pedestrian access to the site and interpretation boards. Occasional management is undertaken by the Falkirk Wildlife Conservation Group.

Nature Conservation Summary

There is a high diversity of habitats across this relatively small site including LBAP priority habitats: broadleaved woodland, unimproved neutral grassland, fen, marsh and swamp and brownfield habitat.

Overall the site supports a moderate diversity of plant species (112 plant species). The relatively young age of the habitats (c. 30 - 40 years) accounts for the limited species diversity. This is likely to rise as the habitats become more established.

The site is likely to be valuable for a range of bird species and has also been noted for its value for invertebrate species.

Avonglen quarry is a known breeding site for great-crested newts and palmate newts. It is part of a larger network of breeding ponds at sites including Avondale landfill, Lathallan and Muiravonside Country Park. Recent work to manage the ponds has helped to maintain suitable breeding habitat.

Recent management work has created a hibernacula for newts and cleared a bank for nesting sand martins. Pond management, Himalayan balsam clearing and tree planting have also enhanced the site.

Conservation and Enhancement Opportunities

- Ongoing management of the ponds to maintain suitable conditions for great crested newts;
- Maintenance of some brownfield habitat (by scrub control and disturbance if required);
- Provision and maintenance of bird and bat boxes, and newt hibernacula;
- Control of Himalayan balsam and other invasive species;
- Continued exclusion of motor vehicles.

64. Bridgeness Shipbreakers

Grid Ref. NT 01587 81661

Area 4.4 Hectares

Key Features

Habitat (s)
An area of previously industrial land now supporting a mix of bare ground, neutral grassland, scrub, and woodland, bounded to the north by the high tide limit of the Firth of Forth.

Species
Over 80 invertebrates recorded including the Hobo spider. Good diversity of plant species (c. 100).

Connectivity
Important element of a green corridor along the foreshore from Carriden in the east to Kinneil foreshore LNR in the west and beyond. A key site on the John Muir Pollinator Way.

Community
Easily accessible for local residents and staff at the nearby industrial estate. John Muir Way national trail passes through the site.

Description

Bridgeness Scrapyard lies north of Bridgeness Road in Bo'ness. Industry is to the east and west of the site and housing is to the south. Flood defences run along the north of the site protecting it from the Firth of Forth. The site was previously industrial, used as a shipbreakers yard. Relatively little sign of its past use remains.

An open mosaic of habitat is found across the entire site with areas of woodland, scrub, meadows, early successional communities and bare ground. The east of the site is relatively young broadleaved woodland. The central area of the site has lots of bare ground with broken up concrete and gravel and has areas of early successional vegetation. To the west is an area of scrub, to the north of which is a large area of open meadow with a range of wildflower species. The slopes of the flood defence bund also supports a range of wildflowers.

Nature Conservation Summary

The site supports a good range of habitats, given its size. These include LBAP priority habitats Broadleaved woodland, neutral grassland and brownfield habitat.

There is a high diversity of wildflowers on site and almost 100 species of plant have been recorded including Bladder campion, Common centaury and Broadleaved helleborine.

Over 80 species of invertebrates have been recorded at the site including the Hobo spider (Tegenaria agrestis), previously recorded from only four sites in Scotland.
The site is particularly important for pollinators including hoverflies and bumblebees. It is also important for butterflies including Small copper and Common blue (an LBAP priority species).

The woodland is important for breeding birds. The LBAP priority species Bullfinch, Kestrel and Swallow have all been observed.

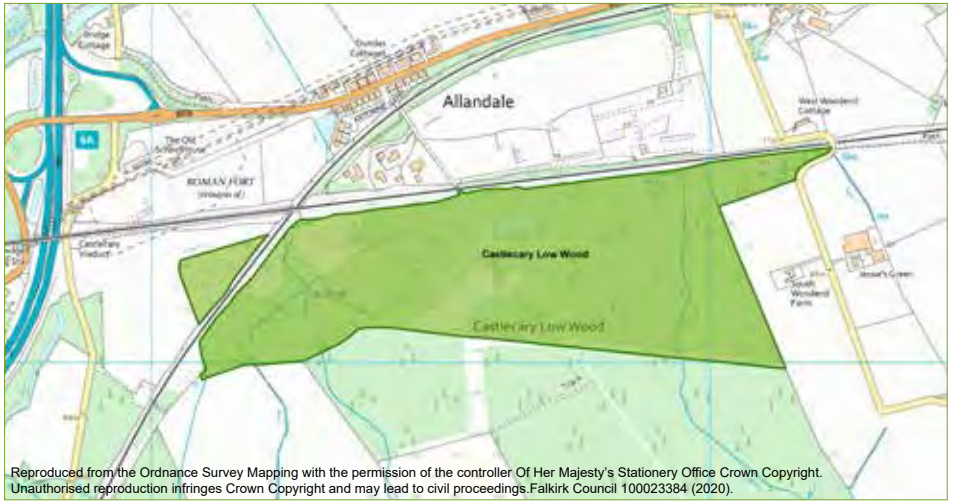
Litter remains an issue at the site, although fly-tipping has been reduced by the installation of a vehicle barrier. Recent management work has controlled invasive buddleia, removed litter and sown yellow rattle. The site is also used for educational and volunteering activities.

The site is a key part of a network of habitat along the Bo'ness shoreline from Carriden woods to the east, along to Grangepans and Bo'ness foreshore to the west.

Conservation and Enhancement Opportunities

- Continue to control invasive species (buddleia, bramble etc);
- Undertake litter removal as required;
- Periodically control scrub and saplings to maintain the brownfield and grassland habitats.

65. Castlecary Low Wood



Grid Ref. NS 79639 78163

Area 27.2 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Scrub Ponds and flushes Bog Neutral and marshy grassland Heath.
Species	Good species diversity. Likely to be liverwort and moss species of interest. Likely to be of value for breeding birds, invertebrates, and bats. Several LBAP species present.
Connectivity	Part of a much larger network of woodland habitat. Linked to railway corridor.
Community	Some recreational use of the site.

Description

Castlecary Low Wood is located about 700 m east of Castlecary. Railway lines border the northern and western edges of the site; on the western side, the railway line dissects a section of the site, preventing easy access.

The wider Castlecary area has a long industrial history, including mining and brickworks. There was woodland cover on the site from the mid to late 1800's until the late 1950s. Subsequent industrial activity saw much of the woodland cleared. Woodland regeneration started in the 1970's-80's. The majority of the woodland in the east of the site is c. 40 years old, and in the western half of the site, some areas may be less than 25 years old.

Most of the site is broadleaved semi-natural woodland. To the east: wet, heathy woodland dominated by birch with occasional oak and rowan. To the west: younger scrubby woodland but still dominated by birch, and oak in places.

The site also supports areas of wet heath, modified bog, marshy and neutral grassland, and pond.

There is a track though part of the site, with evidence of regular use by walkers and horse riders.

Nature Conservation Summary

Castlecary Low Wood supports a number of interesting woodland habitats of varying stages of establishment. Part of the woodland is listed on the Ancient Woodland Inventory as long-established plantation origin woodland. The size of the stands of wet birch woodland are notable. Heathland and broadleaved woodland are LBAP priority species.

The diversity of the woodland is increased by the mosaic it forms with the more open areas, grasslands and glades; often important for butterflies and other pollinators. The modified bog and flush habitats also add to the diversity of the site.

The small areas of heath add significant biodiversity interest, providing cover and forage for a range of bird, invertebrate and reptile species. The woodland may support species of liverwort and Sphagnum moss of some rarity, and a more detailed search of these areas could produce an extensive list of bryophytes. 108 plant species were recorded during survey.

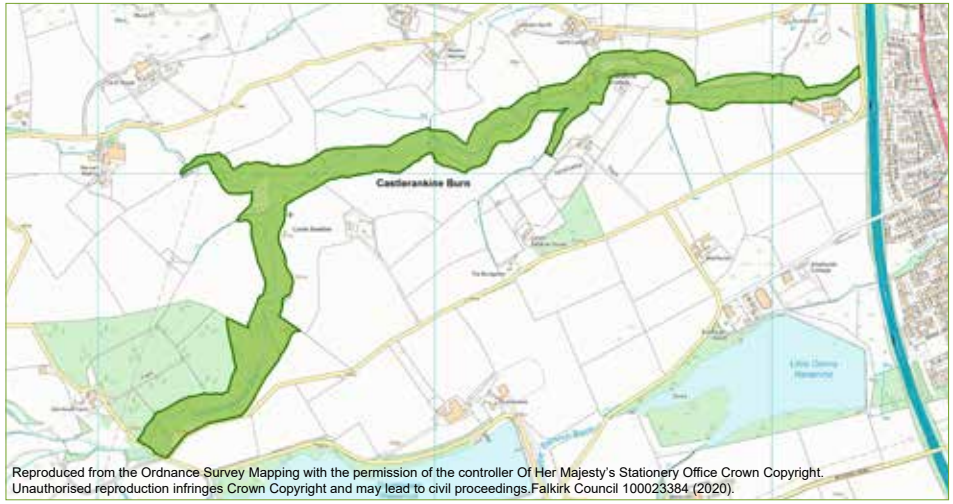
The woodlands are likely to be important areas for birds, including LBAP priorities: wood warbler, cuckoo and spotted flycatchers. They are also likely to support LBAP priorities - bats and bluebell.

The woodland connects to a significant area of woodland immediately to the south, forming part of a much larger woodland habitat network. It also links to adjacent wildlife corridors along the railway lines to the north and west.

Conservation and Enhancement Opportunities

- Control scrub encroachment in heathland areas;
- Potential to increase the area of heathland through selective tree removal;
- Glade creation would increase opportunities for invertebrates;
- Re-establish the ponds, particularly the two in the western part of the site.

66. Castlerankine Burn



Grid Ref. NS 78943 81922

Area 26.5 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland (including ancient woodland) Running water Marshy grassland Scrub.
Species	Over 100 plant species present. Several LBAP priority species known to occur and others likely. Potentially an important site for bryophytes.
Connectivity	An important wildlife corridor in its own right. Close to a number of other wildlife sites.
Community	Limited accessibility.

Description

Castlerankine Glen is a 25.2 ha woodland site, located 1 km west of Denny at its closest point. Castlerankine Glen is a relatively large, long-established semi-natural broad-leaved woodland within a moderate to steeply sloping valley with riverside terraces. Nearly 95 % of the site was comprised of either woodland or river habitats.

The majority of the woodland at Castlerankine Glen is oak-birch woodland, with locally abundant sessile and pedunculate oak accompanied by downy birch, rowan, ash, wych elm and coppiced hazel. In places along the valley edges ash dominated woodland also occurs. The includes occasional areas of more open habitat including bracken and marshy grassland. The Castlerankine burn runs through the site west to east.

The nature of the topography of Castklerankine Glen is such that is it not easily accessible for recreational or educational purposes. There were no signs of regular usage, although historically areas of the wood had clearly been used as hazel coppice.

The surrounding landuse is improved pasture and arable farming. The M80 and the town of Denny lie at the eastern end of the site.

Nature Conservation Summary

Castlerankine Glen is marked on the Ancient Woodland Inventory as being ancient woodland, of semi-natural origin. It is therefore assumed to have been wooded for as long as records exist, and given its topography, this is highly like to be the case.

The primary nature conservation value of Castlerankine Glen stems from its undisturbed nature and size, rather than rarity of any of the habitats recorded. The site is a typical valley woodland, containing a characteristic sequence of woodland types. Broadleaved and mixed woodland is an LBAP priority habitat.

It is likely that notable species such as bluebell and dog's mercury are widespread in the wood. Given its isolation and lack of disturbance, this may be an important site for bryophytes. It is likely that the burn supports foraging otter. The site is also likely to be important for a range of bird species. LBAP priority species likely to occur include: bats, water vole, cuckoo, dipper, wood warbler, spotted-flycatcher, amphibians and bluebell.

The site forms an important length of habitat corridor along the Castlerankine Burn, even though it is largely surrounded by more intensively managed agriculture and settlements. Little Denny Reservoir and Drumbowie reservoir are nearby to the south.

Conservation and Enhancement Opportunities

- Ensure non-native plants from the planted memorial site at the southern end of the glen do not encroach into the rest of the woodland;
- Periodically check for non-native invasive species such as Japanese knotweed and eradicate if found;
- Monitor impacts of grazing animals (e.g. cattle) to ensure this does not have a negative impact on the glen.

67. Forge Dam

Grid Ref. NS 87874 82619

Area 2.5 Hectares

Key Features

Habitat (s)

Brownfield habitat
Grassland/meadow
Standing water
Swamp
Scrub
Broadleaved woodland.
Bee Bank

Species

157 invertebrate species. Diverse plant species typical of brownfield habitat. Several nationally scarce or Red Data Book invertebrates recorded.

Connectivity

A key part of the Carron Dams Local Nature reserve. Adjacent to the Carron Dams SSSI. Part of a much wider habitat corridor along the River Carron.

Community

Active educational and recreational use of the site. Part of a Local Nature Reserve managed with active input from a local management group.

Description

Forge Dam is a former reservoir which supplied water to the nearby Carron Iron Works. In 1972 the Carron Company drained the site in readiness for infilling. However, the site was only partially infilled in 1984.

The site is accessed from the west, over the bund separating the larger Wester Dam from the Forge Dam. Stone walls bound the south and north of the site. A steel chain link fence limits access from the east.

The site supports a mosaic of open water, wetland, scrub, neutral grassland, woodland and brownfield habitats. To the north and west the site is edged by broadleaved woodland dominated by Sycamore, Ash and Wych Elm. To the south there is extensive scrub, predominately Downy birch. The centre and west of the site supports areas of open water, swamp and marginal vegetation. The raised eastern part of the site is much drier and supports a mosaic of birch scrub, neutral grassland and bareground. A bee bank has recently been created in this area. A meadow was recently created in the far east of the site.

The site is part of a bigger Local Nature Reserve which is well used for recreation and education. The Forge dam has a well-used path along its northern edge but fewer people access the rest of the site which has no formal paths through it.

Nature Conservation Summary

The range of habitats present on this small site is notable. The brownfield habitat and the openwater and marsh provide particularly valuable habitat, especially in association with the neighbouring Carron Dams SSSI.

Broadleaved & mixed woodland, brownfield habitat, open water, neutral grassland and fen, marsh & swamp are all LBAP priority habitats. The woodland to the north is protected under a tree preservation order.

The site supports a diverse range of invertebrates. These include the rare solitary bee (Andrena ruficrus). The site may also support the RDB2 (endangered) hoverfly Parhelophilus consimilis (known from the adjacent Wester Dam).

Forge Dam supports a wide range of bird species including LBAP priority species: song thrush, sedge warbler, kestrel, swallow, swift and reed bunting. It is likely that Pipistrelle bats and/or Brown long-eared bats feed over the site and have roosts in the mature trees. Toads, frogs and perhaps newts are also likely to occur.

The site represents a valuable extension to the adjacent SSSI and acts as a buffer between the SSSI and the neighbouring industrial area. It is an important part of a highly valued and well looked after Local Nature Reserve. Recent work to control scrub, sow yellow rattle, plant hedges and create a bee bank have increased the biodiversity value of this site.

Conservation and Enhancement Opportunities

- Continue to manage the site as part of the Carron Dams LNR;
- Control scrub to maintain brownfield habitat;
- Monitor and manage water levels as necessary;
- Provide controlled access to the site to limit impacts on sensitive species;
- Cut meadow area annually.

68. Haggs Wetland

Grid Ref. NS 78677 79771

Area 12.9 Hectares

Key Features

Habitat (s)
Open water
Swamp
Valley mire
Marshy and neutral grassland
Broadleaved semi-natural woodland
Scrub.

Species
Great crested newt breeding site. Good species diversity. A good number of LBAP species are likely to be present including bird and amphibian species.

Connectivity
Forms an important network of pond and wetland habitat in its own right.

Community
Some recreational activity, with a potential increase in use following nearby residential development.

Description

Haggs wetland is a 14.8 ha site, 360 m north of the village of Banknock It is not a compact site, comprising instead of a western spur which extends from a horse-shoe shaped valley bottom area in the east. Various tracks skirt the perimeters of some of the fields within the site, although the main waterbody itself, and some of the valley wetlands, are not so easily accessible.

Nearly two-thirds of the Haggs wetland site is marshy grassland and semi-improved pasture, with a newly created area of species-rich neutral grassland to the west. This surrounds and connects a series of wetland habitats. These include an interesting mosaic of swamp, valley mires and open water bodies / ponds. The biggest area of open water being Haggs Lake. There are two small areas of broadleaved woodland and some scattered scrub. Great crested newts breed within this site.

In the west, an area of new ponds and neutral grassland has been created as openspace provision for the neighbouring development site. This area is used by walkers.

Nature Conservation Summary

Haggs wetland has considerable nature conservation interest, stemming from the sheer number of habitat types present, as well as its resident great crested newt meta-population. There are several LBAP priority habitats: fen,marsh & swamp, neutral grassland and standing open water.

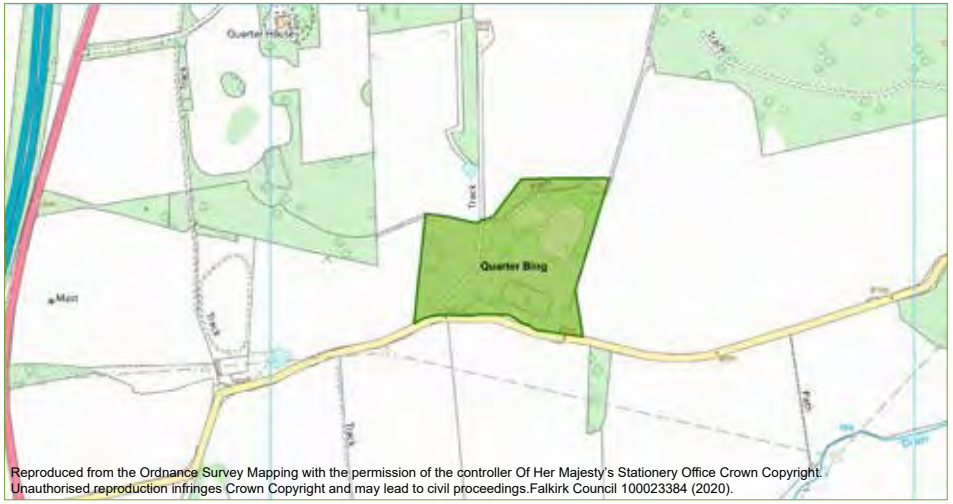
The marshy grassland is particularly species-rich, including abundant Dactylorhiza orchid species. As well as great crested newt the site is likely to support other LBAP species including: ragged robin, frog, toad, other newt species, grasshopper warbler, wood warbler, sedge warbler, teal and other waterfowl.

This site forms an important network of openwater and wetland habitat.

Conservation and Enhancement Opportunities

- Access by cattle to the water's edge should be maintained as some poaching is beneficial;
- Monitor grazing pressure to prevent negative effects;
- Identify specific pond management requirements for the great crested newts, then undertake pond enhancement as required;
- Autumn graze marshy grassland areas to control scrub encroachment;
- Avoid draining the water bodies, wetlands and marshy grassland.

69. Quarter Bing



Grid Ref. NS 81377 84607

Area 5.0 Hectares

Key Features

Habitat (s)	Semi-natural broadleaved and mixed woodland Conifer woodland Bing Scrub Grassland.
Species	Good diversity of plant species. Potentially rare Hieracium species. Specialist acid bing plant species of note. Range of LBAP priority species likely.
Connectivity	Functionally linked to a number of other woodland sites nearby, including Dales Wood SINC.
Community	May be informal recreational use.

Description

This is a relatively small site, lying to the north of Denny. The majority of this site is semi natural broad-leaved woodland. To the north of the site is Quarter bing, an area of spoil that is acid in nature and has been colonised by a range of upland plants (typical of dry, upland acid rock and scree) and silver birch trees.

There is a well-used footpath through the site. In recent years areas of Japanese knotweed have been treated and fly-tipping removed.

Nature Conservation Summary

The broadleaved woodland is relatively diverse with a good scrub and groundflora layer and well represented dead and decaying wood. The bing is of some local importance as it supports a range of acid upland species which, locally, are much rarer than they are in the hills. Both broadleaved woodland and bings are LBAP priority habitats.

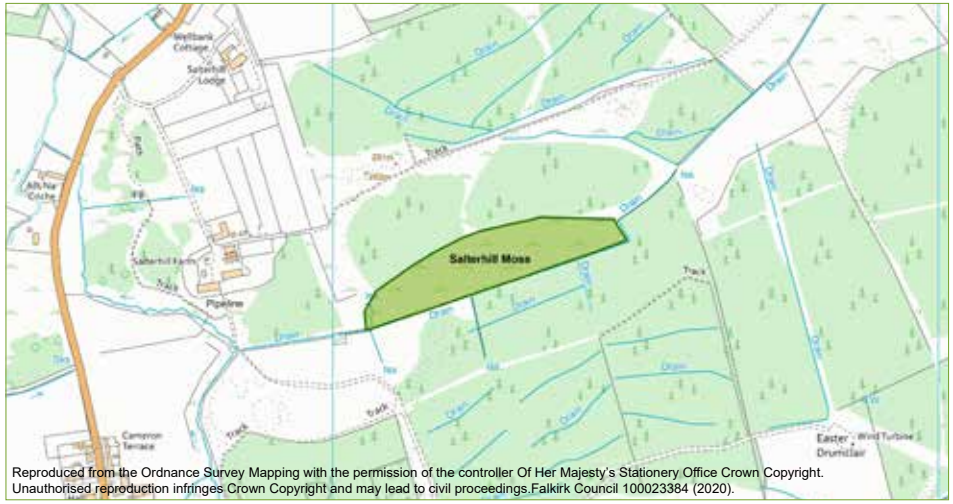
The main species interest here is the presence of Hieracium species, which occur over most of the bing. While notoriously difficult to identify to micro-species, these plants may be from the alpine section. Many species of Hieracium found in the uplands and on rock are rare. Over 70 plants species have been identified fromthe site so far.

Other LBAP species are likely to be present including: bat species, bluebell, wych elm, and wood warbler. Recent surveys have also shown pine marten to be using this area.

Conservation and Enhancement Opportunities

- Maintain the bing and remove some birch to keep the open habitat;
- In the less diverse areas of woodland open up glades by coppicing and thinning;
- Continue to control Japanese knotweed and remove fly-tipping;
- Survey the hieracium plants to identify them more accurately.

70. Salterhill Moss



Grid Ref. NS 86257 71544

Area 3.3 Hectares

Key Features

Habitat (s) Raised bog.

Species Typical bog species present. LBAP species Round-leaved sundew present.

Connectivity Relatively isolated but one of a number of raised bogs across the Slamannan Plateau.

Community Little or no recreational use.

Description

Salterhill Moss is a remnant lowland raised bog situated north of the village of Limerigg on the Slamannan Plateau.

The site has a good covering of characteristic bog species, and negative indicator species such as Molinia caerulea and Juncus effusus are in most cases confined to the rand and ditches. There is some evidence of former, small-scale peat cutting. The surface of the bog shows signs of erosion with exposed bare peat throughout.

The bog has been drained in the past. There is a deep ditch along the southern border of the site.

The bog is surrounded by fairly mature spruce/pine commercial forestry plantation. There is an area of birch scrub along the southern edge of the bog along a deep ditch and spruce scrub has begun to encroach onto south-western corner of the bog.

Nature Conservation Summary

Raised bog is a national and LBAP priority habitat. Overall, there are occasional to frequent Sphagnum papillosum and S. magellanicum hummocks, which suggests that the mire is still active. There are occasional S. capillifolium hummocks, another typical raised bog species.

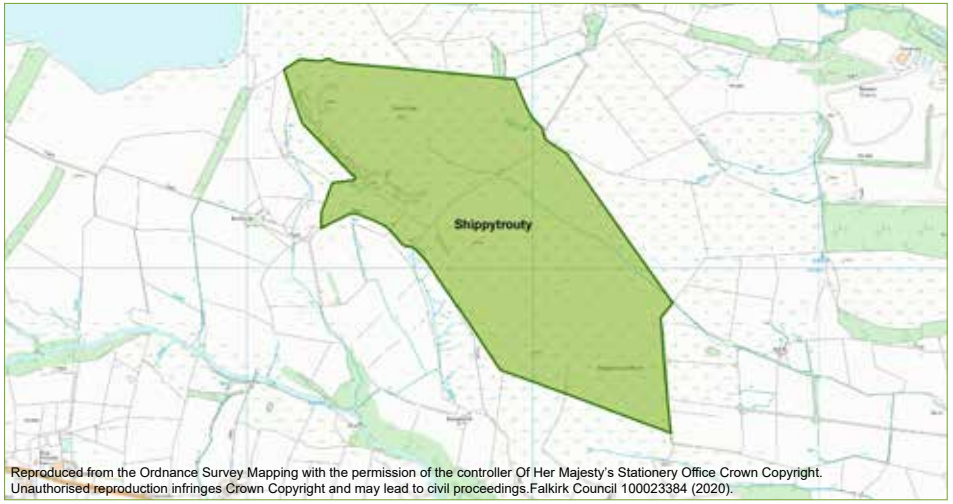
The LBAP priority species Drosera rotundifolia occurs in low moss hummocks surrounding the bog pools. A range of LBAP priority amphibians and wetland bird species are also likely to use the site.

A bog restoration project is due to take place at this site during 2020-22 which should re-wet the drier drained areas, encourage revegetation of the barer areas and control scrub.

Conservation and Enhancement Opportunities

- Implement bog restoration plan produced by Buglife;
- Block drains;
- Control scrub encroachment;
- Where possible pull back adjacent forestry to create openspace between the bog and tree planting.

71. Shippytrouty



Grid Ref. NS 77869 85150

Area 88.6 Hectares

Key Features

Habitat (s)

Scattered mature trees
Scrub
Marshy grassland
Acid grassland
Unimproved neutral grassland
Heath
Rocky outcrops
Peat bog
Running water.

Species

Good plant species diversity. High numbers of lichens recorded.
LBAP priority plants and birds present.
Numerous locally uncommon or rare plant species.

Connectivity

Sits in a wider upland landscape with links along burn corridors to sites to the east and south. Loch Coulter and River Carron corridor nearby.

Community

Some informal use by walkers likely.

Description

Shippytrouty Wood lies approximately 2km west of Dunipace, near Denny. The woodland was felled in the early 1900's. The area is now an interesting area of enclosed hill land with scattered remnant Scots Pines, marshy grassland containing former peat bog species, dry dwarf shrub heath and acid grassland mosaic. The northern half of the site, known as Skea Craig, supports a mix of dry and wet dwarf heath, acid grassland, marshy grassland, scattered residual Scots Pine and rowan. Dense and scattered gorse scrub is abundant throughout.

The area is part of a large geological escarpment that projects from the surrounding landscape of small farms, valleys and woods. It has extensive rock outcrops, thin soils and boulder strewn areas. Drystone walls bound and bisect much of the site.

Nature Conservation Summary

The site supports a diverse range of habitats including the following priority LBAP habitats: a small area of remnant peat bog, heath, broadleaved woodland, unimproved neutral grassland and acidic grassland.

Many areas exhibit rich plant species-diversity. There are a range of rare and uncommon plant species onsite including the LBAP priority species Round-leaved sundew.

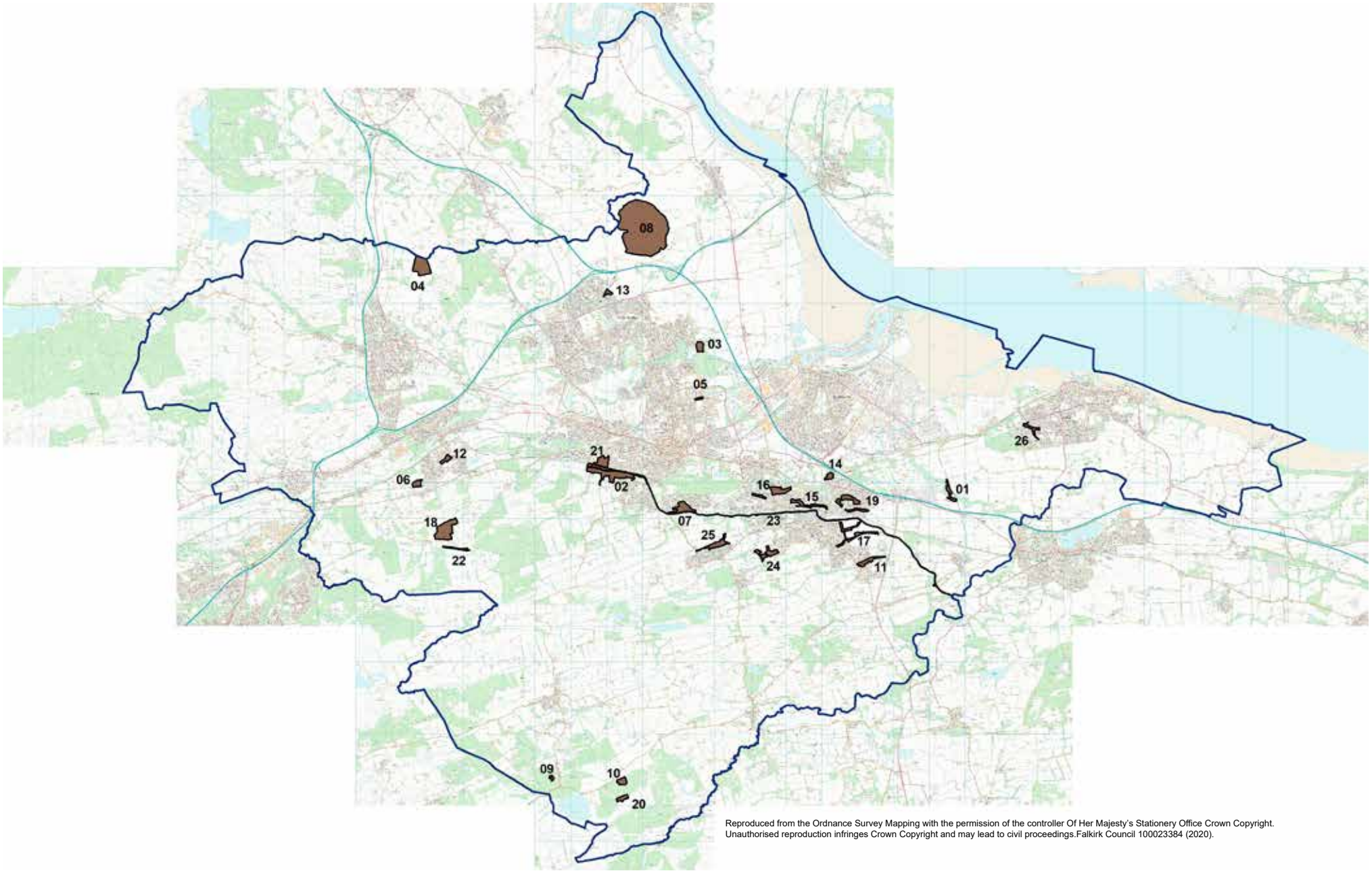
Other LBAP species include skylark, curlew, kestrel, frog, common blue butterfly and ragged robin. Butterflies are abundant in the herb rich areas and the LBAP priority small-pearl-bordered fritillary has been noted from nearby.

Conservation and Enhancement Opportunities

- Avoid further drainage to protect the bog and wet heath habitats;
- Prevent further gorse scrub encroachment to retain bog, heath and grassland habitats;
- Remove some of the existing dense scrub;
- Encourage the regeneration of dwarf shrub heath and native woodland in places;
- Reduce or exclude grazing from some areas.

List of Sites of Importance for Nature Conservation

Map of All Sites of Importance for Nature Conservation



01. Avonbank/Birkhill

Grid Ref.	NS 96535 78837	Area	4.4 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Scrub Neutral grassland Bracken.
Species	Several locally rare species.
Connectivity	Key part the River Avon corridor, close to Avon Gorge SSSI.
Community	Recreational (and possibly educational) use of Birkhill.

Description

This site represents two distinct areas associated with the woodland corridor of the River Avon. The areas support a number of habitats ranging from herb-rich neutral grassland and marsh to scrub and woodland.

The Birkhill area, on high ground to the north of the river, is the site of a former fireclay mine and factory. To the south of the mine is a small area of grassland known as the meadow. Much of the rest of the site supports broadleaved woodland and scrub.

The Avonbank site consists of a small area of north-facing embankment and low lying, often marshy slopes situated on the south side of the River Avon valley.

Nature Conservation Summary

This site supports a diverse range of habitats including neutral grasslands, marsh, bracken, tall herbs, scrub and various woodland types (including locally rare ash dominated valley woodland).

The core interest of the Birkhill site is the species-rich grassland, a locally rare habitat and LBAP priority.

Although species diversity (86 plant species) is not particularly high, a number of locally rare species have been recorded including common restharrow, pale sedge and greater butterfly orchid.

The site is also likely to be of value for breeding birds, invertebrates and mammals.

The site is an important element of the wider river corridor, including the Avon Gorge SSSI to the north-west and Avonbank Woods to the west of Birkhill.

The steam railway stops at Birkhill and a series of paths provides for recreational use of the site.

Conservation and Enhancement Opportunities

- Scrub and bracken control within grassland areas;
- Control of invasive non-native species (Himalayan balsam);
- Re-introduce a grassland cutting regime at Birkhill meadow;
- Scarify soils in coarser grassland areas within Birkhill.

02. Bantaskine Estate

Grid Ref. NS 87083 79267

Area 28.2 Hectares

Key Features

Habitat (s)	Broadleaved woodland Broadleaved parkland Wet woodland Neutral grassland Scrub.
Species	Wych Elm (LBAP priority species).
Connectivity	Adjacent to Union Canal wildlife corridor.
Community	Well used public park and openspace.

Description

Bantaskine Estate, located south of central Falkirk, is a large area of parkland and semi-natural woodland adjacent to the Union Canal. The majority of the site consists of broadleaved woodland (primarily of plantation origin), with a significant area of broadleaved parkland and several large areas of improved or semi-improved neutral grassland.

The site includes a small area of woodland and scrub to the north side of the canal, between the canal and railway. Recent surveys identified areas of wet woodland to the west either side of the canal.

The site is located on the wildlife corridors formed by the Union canal and railway line. It is also adjacent to the Union Canal SINC and close to Summerford SINC.

Nature Conservation Summary

This extensive site supports a number of different habitats, although most are not particularly rare. Wet woodland is an LBAP priority and relatively rare locally. The association of the site with the neighbouring Union Canal SINC increases the variety of habitats present locally. Nine hectares of the woodland is identified as long-established woodland of plantation origin.

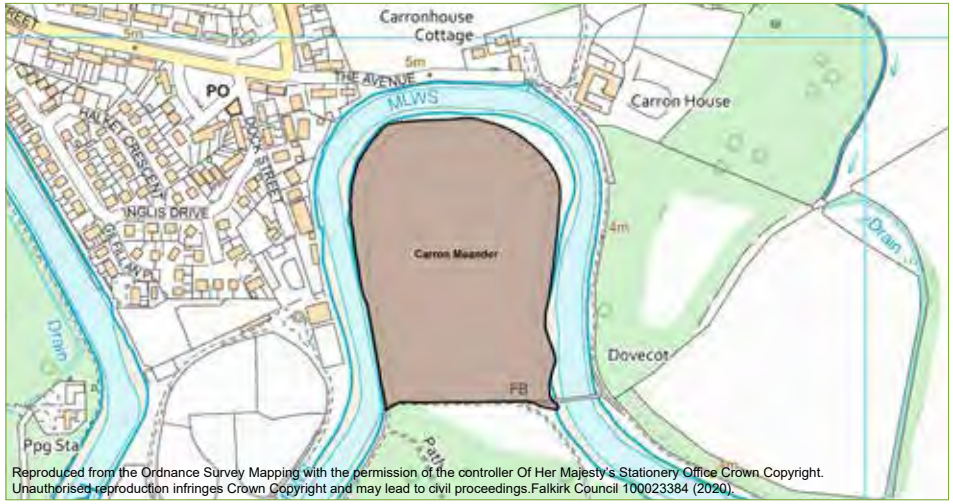
Plant species diversity is likely to be average and to date no locally rare plant species have been recorded, although the LBAP priority species Wych elm and Oxeye daisy are present. The parkland may support veteran trees which tend to be of high value for wildlife. The site supports bats and is likely to be of value for woodland birds and invertebrates. A breeding bird survey of the site recorded 13 species.

The site represents an important area of habitat along the wildlife corridors formed by the Union Canal and the railway line. It is also very well used for recreation, although disturbance away from the main paths is limited.

Conservation and Enhancement Opportunities

- Control of invasive non-native species including Rhododendron, Himalayan Balsam and Japanese knotweed;
- Control exotic species within the areas of semi-natural habitat;
- Continue woodland management;
- Retain (as far as possible) any veteran trees within the parkland;
- Consider altering grass cutting regimes to benefit wildlife and introducing additional native species.

03. Carron Meander



Grid Ref. NS 89602 82783

Area 4.9 Hectares

Key Features

Habitat (s)	Reedbed Standing water.
Species	Reedbed/wetland birds.
Connectivity	Part of an extensive habitat network and part of the River Carron Corridor.
Community	Path next to site well used.

Description

Carron Meander is now an extensive area of reedbed with some standing water and grassland on the drier embankments and path edges. It sits within a meander of the River Carron and is bounded to the south by a footpath and developing woodland.

The site was previously described as supporting saltmarsh and brackish water communities; however alterations to the drainage/management appear to have stopped inundations from the tidal River Carron. This has resulted in the replacement of saltmarsh type habitats with reedbed.

Carron Meander sits within the wider Helix site and, while immediately adjacent to the river and woodland plantation, is close to the residential areas of Carronshore and Langlees.

Nature Conservation Summary

Reedbed is now the dominant habitat of this site. It is a UKBAP and LBAP priority habitat and reedbeds of this size are locally rare.

The habitat diversity is augmented by areas of openwater, grassland and potentially swamp. Although plant species diversity is low, with common reed and canary reed grass dominating, the site is likely to be of importance for bird and amphibian species.

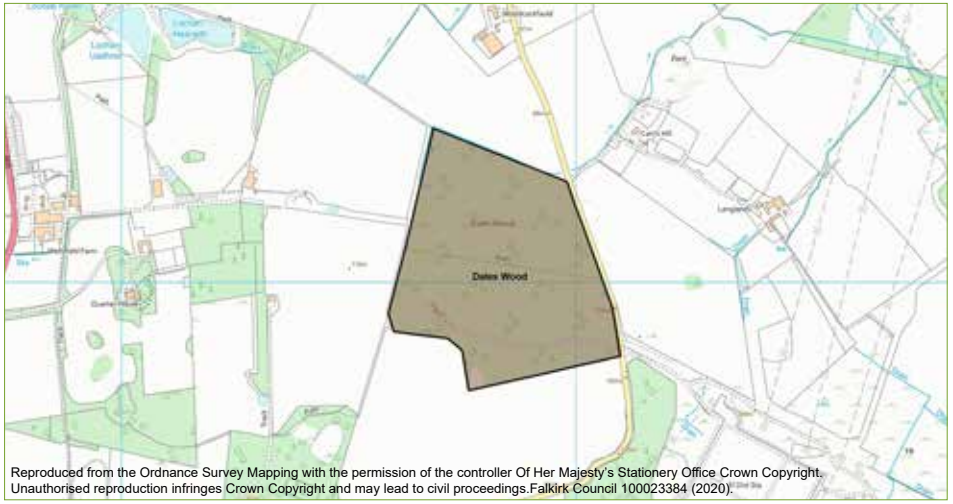
The site's value to birds and other fauna is likely to be increased with the development of adjacent woodland providing a larger habitat network and creating some shelter from disturbance.

The location of the site on the River Carron and adjacent to establishing woodland puts it at the heart of an extensive habitat network.

Conservation and Enhancement Opportunities

- Redefine the SINC boundary to reflect the spread of the reedbed habitat;
- Ensure drainage does not reduce the wetness of the site;
- Control invasive non-native plants adjacent to the site.

04. Dales Wood



Grid Ref. NS 81836 85032

Area 19 Hectares

Key Features

Habitat (s)	Broadleaved woodland Scrub.
Species	Climbing Corydalis.
Connectivity	Part of a large woodland habitat network.
Community	Some recreational use.

Description

Dales wood is a large area of semi-natural broadleaved woodland situated on the low hills north of Denny. Semi-natural broadleaved woodland covers almost all of the site, however there are also small areas of wet mire woodland, open grassy glades and heath, particularly along a ride beneath power lines.

The surrounding land slopes away in most directions and supports well improved agricultural land. There are a few woodland blocks nearby at Quarter House and Torwood.

Nature Conservation Summary

Dales wood is an extensive area of relatively undisturbed oak-birch woodland, a locally rare woodland type. The woodland is listed as long-established plantation woodland.

The small areas of mire and relic heath, plus grassy woodland rides and margins provide additional habitat diversity.

The drystone walls around the wood also provide a good habitat for lichens and mosses and a variety of animals.

The recorded species diversity of the site is low (98 plant species), with broad-buckler fern dominating the ground flora; however more typical woodland species may become established over time. The locally rare climbing corydalis does occur amongst the bracken.

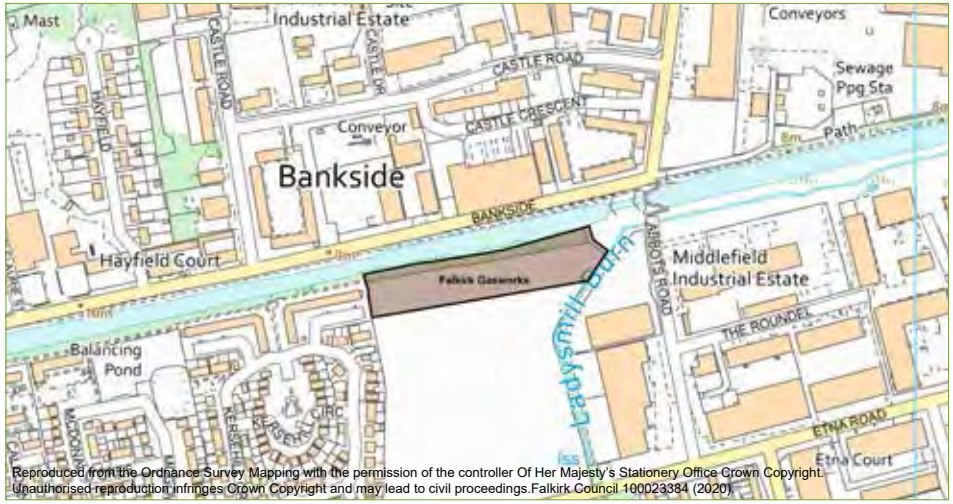
The site is likely to be important for breeding birds and woodland mammals.

Although isolated within agricultural land the site is extensive and forms an important element in the woodland habitat network linking Torwood in the east to woodland around Quarter House and Braes Wood further west.

Conservation and Enhancement Opportunities

- Ensure rhododendron and sycamore do not dominate the woodland;
- Ideally, remove rhododendron;
- Thin the heath and mire areas to maintain an open canopy;
- Secure the mire water table by locally preventing drainage;
- Maintain glades along the southern ride and more open woodland margins.

05. Falkirk Gasworks



Grid Ref.	NS 89582 81342	Area	1 Hectares

Key Features

Habitat (s)	Unimproved neutral grassland Woodland.
Species	Several LBAP priority species.
Connectivity	An important site on the Forth and Clyde canal corridor.
Community	Currently no access.

Description

This site is within the site of the former Falkirk Gasworks and is immediately adjacent to the Forth and Clyde canal.

The centre of the site supports unimproved neutral grassland with similar but noticeably wetter grassland to the west of the site. The east of the site is dominated by regenerating birch and willow woodland and scrub.

Nature Conservation Summary

Given its small size the site has average habitat diversity, helped by different types of grassland vegetation present as a result of varied drainage across the site.

Species diversity is not particularly high (around 50 plant species recorded) but may improve as habitats develop following relatively recent disturbance and regeneration.

LBAP priorities recorded from the site include smooth newt, ox-eye daisy, wych elm and bullfinch. The site is likely to be important for breeding birds and may also be an important resting or foraging area for species travelling along the canal corridor (e.g. otter, amphibians, bats).

The site is particularly valuable because of the role it plays providing an important area of habitat on the canal corridor within an otherwise built-up area.

Conservation and Enhancement Opportunities

- Ensure the SINC is safeguarded if the remainder of the site is developed;
- Control scrub to avoid encroachment into key grassland areas;
- Manage woodland as it develops to increase floristic and age diversity;
- Provide recreational access to the area;
- Control invasive non-native species such as Himalayan balsam.

06. Glenyards

Grid Ref. NS 81715 78971

Area 4 Hectares

Key Features

Habitat (s)	Neutral grassland Scrub Marshy grassland.
Species	Average species diversity.
Connectivity	Linked to the railway wildlife corridor.
Community	Some recreational use.

Description

This site is a small area of neglected tall grassland in a low-lying field to the south of Seabegs Wood. It supports a range of neutral and wet grassland areas, as well as scrub woodland and scattered trees.

It is bounded in the south by the railway line and to the east by housing. Agricultural fields lie to the north and west.

Nature Conservation Summary

Habitat diversity is average with grassland, scrub and scattered trees present. However the grassland interest is increased by the presence of wetter areas around drains to the north.

The species diversity (53 higher plants) is average. The mosaic of rough grassland and scrub is likely to be of value to breeding birds.

The site forms a valuable area of habitat on the wildlife corridor of the railway line. It is also close to Seabegs Wood and the Forth and Clyde canal to the north.

Conservation and Enhancement Opportunities

- Introduce a grazing or cutting regime to improve the grassland species diversity;
- There is potential to improve the site through habitat creation/ enhancement.

07. Hallglen Haven

Grid Ref. NS 89116 78280

Area 11.6 Hectares

Key Features

Habitat (s)	Species-rich Neutral Grassland Broadleaved woodland Scrub Parkland Bracken.
Species	High plant species diversity.
Connectivity	Part of the wildlife corridors of the Union Canal and Glen Burn.
Community	Recreational use.

Description

This site supports a mixture of grasslands, scrub and woodland.

The southern part represents a burn corridor (along the Glen Burn) in which, as well as the mosaic of grassland, woodland and scrub, there are areas of marshier herbs and grasses. The northern part supports most of the grassland habitats in a scrub-grassland mosaic.

This urban fringe site is bounded to the south by the Union Canal, to the east by the railway line and to the north and west by housing.

The steep-banked woodland is planted and experiences disturbance but still shows some natural elements.

The grassland is neutral in character and exhibits good species-diversity in places.

Nature Conservation Summary

This is a large area of mixed habitat and the variety of the habitat mosaic contributes to the sites value.

Species-rich neutral grassland is a locally rare habitat. The site is very species-rich, with 176 plant species recorded. Although no local rarities have been recorded to date, several LBAP priority plant species occur at the site.

The site is likely to be important for breeding birds, invertebrates, bats and otter (along the canal and burn).

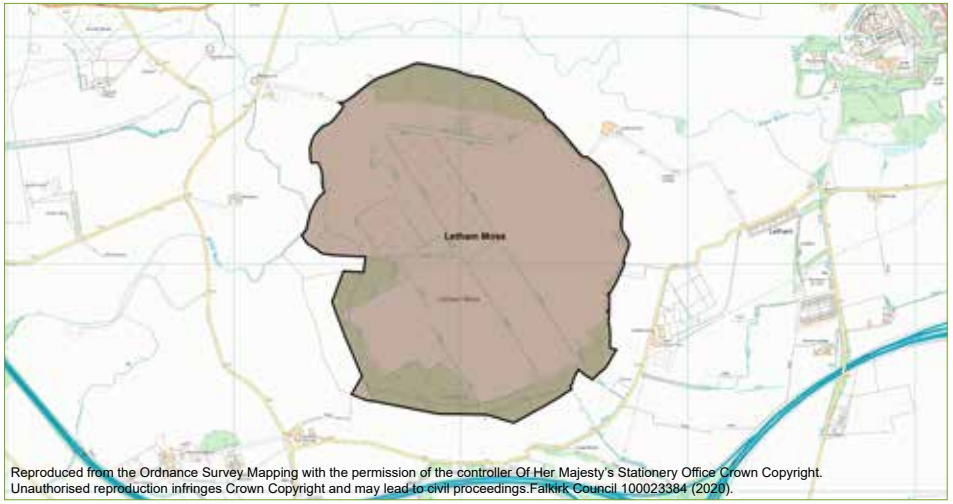
The site is a key part of the wildlife corridors of the Glen Burn and Union Canal and is also close to the Cleuch and Westquarter Burn Wildlife Sites.

It is well used by the local community and immediately adjacent to the local primary school.

Conservation and Enhancement Opportunities

- Encourage woodland on burn-side embankments;
- Retain areas of grassland within the habitat mosaic through grass cutting and scrub control;
- Control invasive non-native species (Himalayan balsam & Japanese knotweed);
- Provide a mix of sward heights through varied grass cutting;
- Clearance of rubbish.

08. Letham Moss



Grid Ref. NS 88019 86084

Area 167 Hectares

Key Features

Habitat (s)	Broadleaved woodland Conifer woodland Scrub Bare peat Modified bog.
Species	Several LBAP priority species.
Connectivity	Close to the Pow Burn.
Community	Little or no recreational use.

Description

Once a significant area of raised bog, this site has been heavily exploited for peat extraction and now the vast majority of it consists of bare or very heavily modified peat.

The remaining habitats of interest lie in the outer fringe of the site. In these marginal areas there is still some relic bog vegetation along with birch scrub and woodland.

The site is surrounded by improved agriculture.

The Pow Burn passes close to the western edge of the site.

Nature Conservation Summary

The margins of this extensive site support a variety of habitat types including acidic birch woodland, birch scrub and small areas of relic peat. While raised bog is nationally rare, the remnants of peat in this case are unlikely to be of national importance but remain of local value.

Habitat diversity may be increased by the presence of pools within the worked peat, however at present these are unlikely to be developing more vegetation or support much fauna. Species diversity within the woodland/scrub is average (94 plant species, including 30 mosses and lichens). Plant species of local note include climbing corydalis.

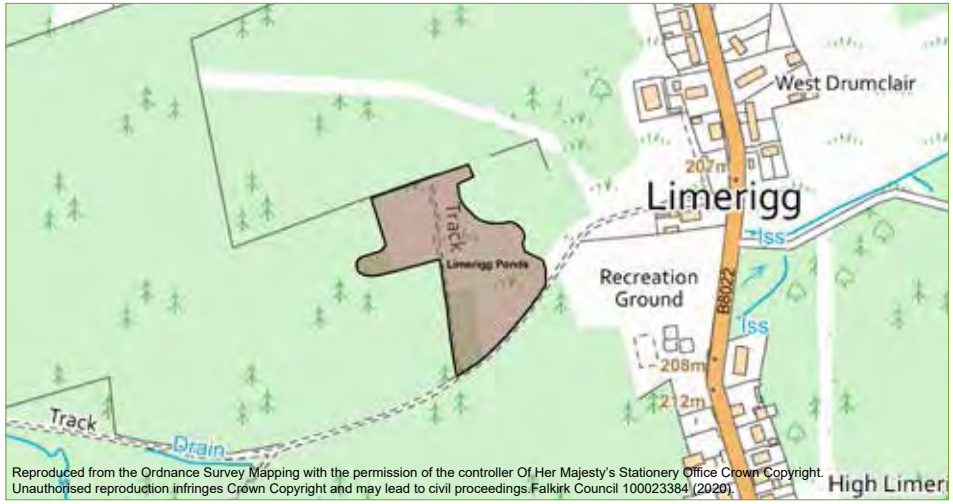
The site has previously been noted as supporting the LBAP priority species Large Heath butterfly, but current presence is unconfirmed. Kestrel has also been noted from the site. The margin of this site lies close to the Pow Burn (to the west) linking it to a wider habitat network and reducing the isolation of this site.

Restoration of the site following completion of peat extraction offers opportunities for enhancing the area for wildlife. Restoration to peat bog is likely to be difficult and costly but restoration to a variety of other wetland habitats may be possible.

Conservation and Enhancement Opportunities

- Safeguard remaining marginal habitat from peat extraction activities if possible;
- Following completion of extraction restore the centre of the site to a range of natural habitats to benefit wildlife.

09. Limerigg Ponds



Grid Ref. NS 85467 70770

Area 1.1 Hectares

Key Features

Habitat (s)	Marshy grassland Basin mire Swamp Heath Acid grassland Conifer plantation Open water.
Species	Good plant diversity including local rarities.
Connectivity	An isolated site.
Community	Limited recreational use.

Description

This compact site is centred round four ponds (presumably associated with past mining activity). It is hidden away within an extensive area of conifer plantation. As well as the ponds themselves the site supports a complex mosaic of habitats including swamp, mire, marshy grassland, heath, conifer woodland and bareground/old bing material.

There is relatively little open water at the site, with 3 of the 4 ponds now heavily vegetated and the central pond with only a small area of open water visible.

The site is close to Limerigg and can be accessed by walkers although it appears to be little used.

Nature Conservation Summary

Given its limited size this site supports a high diversity of habitats, although the quality of those habitats appears to have suffered from an absence of management.

The complex mosaic of wetland habitat is of particular interest and basin mire, swamp and heath are all locally rare habitats.

Species diversity is quite high for such a small site (89 plant species). A number of locally rare or notable plants occur including marsh speedwell, narrow buckler-fern, least bur-reed, common marestail, marsh arrowgrass and Clubmoss.

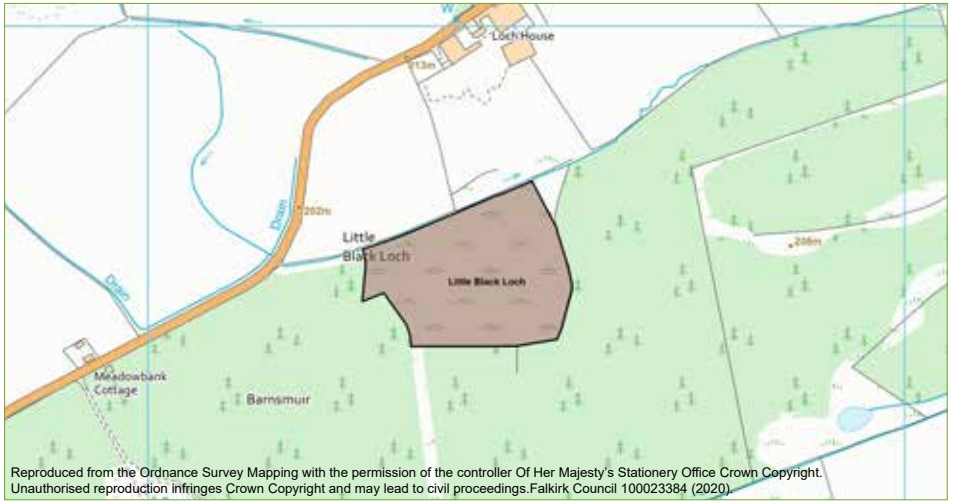
The site is known to support newts and is likely to be important for a range of amphibians and invertebrates.

The site is rather isolated within the commercial forestry however this location means that it does provide an important haven of semi-natural habitat.

Conservation and Enhancement Opportunities

- Create open water areas and scrapes within the pond network;
- Retain areas of heath and grassland, possibly via scrub management;
- Ensure drainage does not lead to drying of the site;
- Prevent damage from forestry operations associated with neighbouring woodland;
- Consider increasing the recreational/educational value of the site for local people.

10. Little Black Loch



Grid Ref. NS 87433 70673

Area 4.2 Hectares

Key Features

Habitat (s)	Basin mire Marsh Modified bog Swamp Grassland.
Species	Typical basin mire species abundant.
Connectivity	Locally isolated but part of a series of mire sites on the Slamannan Plateau.
Community	Little or no access.

Description

This small wetland site is located in a shallow basin in the landscape.It is dominated by a floating mat of mire vegetation, representing a relic semi-natural site amid improved agriculture and commercial forestry.

The site is on deep peat and the quaking nature of the vegetation (and site name) suggests it may have once been open water which has been gradually encroached by vegetation.

The site is separated from agricultural land to the north by a deep ditch. Elsewhere the surrounding land is conifer plantation.

Nature Conservation Summary

The habitat diversity at this site is relatively low; however there are localised variations in the mire vegetation present, presumably reflecting varying water depths and seepage zones.

The surrounding pockets of marsh, modified bog and grassland add to the habitat diversity, as does the central area of swamp vegetation. Basin mire and swamp are locally rare and LBAP priority habitats.

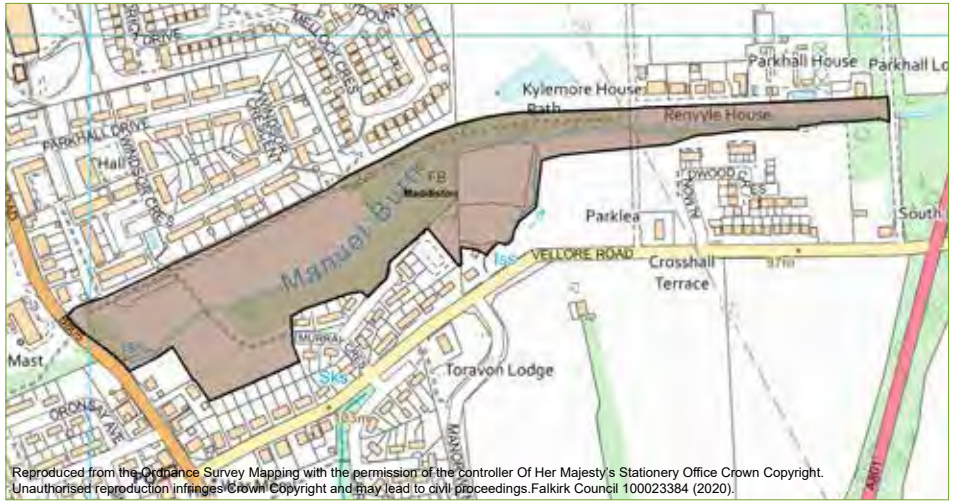
The species diversity is fairly low, reflecting the relatively low habitat diversity, however the site supports good examples of sedge and sphagnum dominated fen vegetation. The main species interest is in the abundance of the typical mire species that are present.

While locally isolated, the site is part of a network of mire sites on the Slamannan Plateau and close to Easter Drumclair and Black Loch wildlife sites and Stoneridge SINC.

Conservation and Enhancement Opportunities

- Ensure forestry operations do not encroach onto the site;
- Dam drainage ditches to prevent drying of the site and inhibit scrub encroachment.

11. Maddiston



Grid Ref. NS 94286 76808

Area 6 Hectares

Key Features

Habitat (s)
- Neutral grassland
- Scrub
- Broadleaved and conifer woodland
- Running water
- Marsh
- Amenity grassland.

Species Good species diversity.

Connectivity An important wildlife corridor.

Community Very well used for recreation.

Description

This urban fringe site follows the valley of the Manuel Burn on the east side of Maddiston. The site comprises a relatively narrow band of semi-natural habitats associated with the Manuel Burn, including grasslands, marsh/ inundation, tall herbs, scrub and mature woodland.

A large part of the west of the site is managed as a park. Recent active community involvement has seen meadow creation and tree planting in this area. To the east of the site woodland and scrub occurs on the steep banks either side of the burn.

Much of the site is now surrounded by housing with just the eastern part of the site fringed by agricultural land.

Nature Conservation Summary

While the total area of semi-natural habitats at the site is relatively small, there is a fairly wide range of habitat types including secondary grassland, marshy or inundated areas, scrub and mature woodland.

Recent meadow creation and tree planting has further increased the range and quality of habitats present.

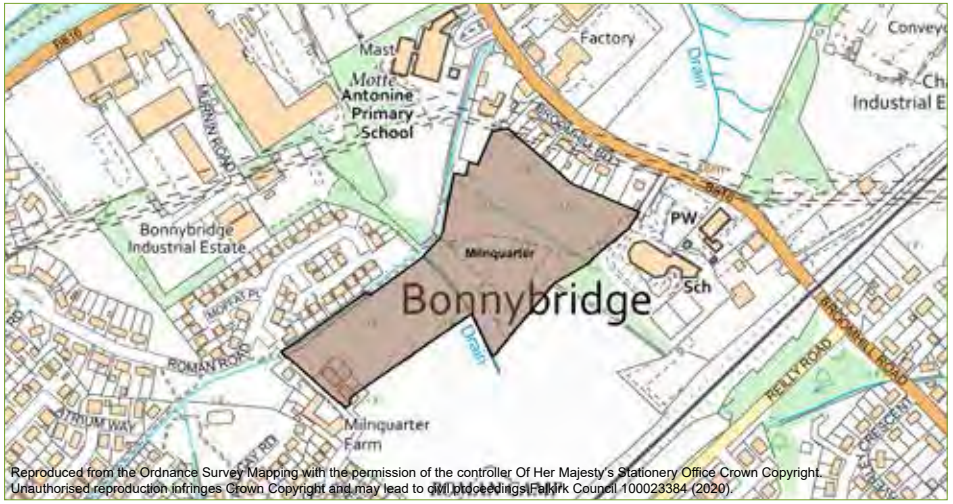
Plant species diversity is fairly high (104 higher plants) for such a small site, primarily due to the range of different habitats present. Of these Marsh Arrowgrass is of local note. The site is likely to be of value to bats and woodland birds.

This site, which follows the Manuel Burn corridor, is one of a series of site in the Polmont, Maddiston and Rumford area which form valuable green corridors. This is a particularly important habitat corridor which links to Maddiston West Wildlife site in the west and along the Manuel Burn to the Union Canal SINC in the east.

Conservation and Enhancement Opportunities

- Scrub and tree planting alongside the burn to reinforce the wildlife corridor;
- Potential to create additional burn-side habitat with scrapes, stepped banks etc.;
- A varied grass cutting regime to provide areas of wildflower meadow and longer grass areas as well as the amenity grassland;
- Management within the mature woodland including selective thinning.

12. Milnquarter



Grid Ref. NS 82526 79652

Area 3.4 Hectares

Key Features

Habitat (s)	Neutral and marshy grassland Scrub.
Species	Locally rare sedges.
Connectivity	Some links to other areas of habitat.
Community	Recreational use.

Description

Milnquarter comprises a relatively small area of neutral grassland, much of it poorly draining, situated on the southern edge of Bonnybridge.

Several small burns/ditches run through the site and these are often associated with areas of marshy grassland and scrub. A burn runs along the northern edge of the site.

The site is surrounded by pasture to the southeast and housing on the remaining sides. The site has some links to other areas of habitat via wildlife corridors along the northern burn and by the railway line to the south.

Nature Conservation Summary

Milnquarter is primarily neutral grassland; however the habitat diversity is increased by the presence of wetter areas, burns/ditches and patches of scrub. Good sized areas of species-rich neutral grassland (an LBAP priority habitat) are relatively rare locally.

The grassland has high species-richness in places, particularly in the central part of the site where marshy grassland appears to have extended. This is a species-rich site with over 100 plant species recorded. A number of locally rare species occur including hairy sedge and brown sedge. The site is likely to be of value to breeding birds and invertebrates.

Although surrounded on three sides by housing, the site is not entirely isolated, linked to other areas of open habitat by burns/ditches and by the nearby railway corridor.

The site is well used, with clear desire lines crossing it. It is also close to a number of schools offering opportunities for educational use.

Conservation and Enhancement Opportunities

- Control Himalayan balsam, rhododendron and other invasive species;
- Manage grassland with annual cut and lift of arisings;
- Improve paths where they cross wetter areas;
- Potential to create scrapes or pools within wetter areas;
- Localised tree and shrub planting to provide shelter and define boundaries.

13. North Stenhousemuir

Grid Ref. NS 87039 84291

Area 2.2 Hectares

Key Features

Habitat (s)	Broadleaved woodland Scrub Neutral grassland Marsh.
Species	Good species diversity.
Connectivity	Largely isolated but with links to local trees and open space.
Community	Limited recreational use.

Description

This site comprises a small are of birch woodland and associated scrub within a poorly drained depression. A drain in the north of the site supports marsh vegetation and there are small glades of rush-pasture in the south.

The site has recently built housing to the north. The farmland on the remaining boundaries will be developed over the next year or two after which the site will be surrounded be housing. It does however link to some areas of openspace/landscaping associated with Bellsdyke hospital.

Nature Conservation Summary

The most interesting habitat feature within this site is the area of wet, bog woodland; wet woodland being an LBAP priority habitat and locally quite rare.

Habitat diversity is limited but some additional interest is afforded by the marsh vegetation and areas of grassland. Species diversity is good (100 plant species) for the scale of the site and species interest is increased by a range of marsh/bog species including sphagnum mosses. In addition 17 species of fungi have been recorded.

The site is likely to be of some value for breeding birds and bats.

The site is now relatively isolated with narrow corridors linking it to nearby open space and street trees. However, its urban fringe location makes the site itself all the more important as a haven for wildlife in an otherwise built-up area.

Conservation and Enhancement Opportunities

- Retain/reinstate open glades by scrub removal;
- Retain northern marshy drain by scrub control;
- Ensure surrounding development does not cause drainage of the site;
- Monitor woodland regeneration and development to determine whether management is required;
- Promote careful use and stewardship of the site by the local community;
- Maintain the scrubby drainage ditch corridor which links the site to the trees along Hamilton Road and openspace at Bellsdyke Hospital.

14. Polmont Park

Grid Ref. NS 93219 79174

Area 3.1 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Mixed plantation woodland Amenity grassland Scrub Parkland.
Species	A number of plant species of note.
Connectivity	Part of extensive habitat networks to the north and east of Polmont.
Community	Public park - well used for recreation.

Description

This site, situated in the northern fringe of Polmont, is a small area of parkland with old plantation woodland. The woodland has a secondary growth of scrubby woodland species, and areas of amenity grassland. The woodland includes a tree-lined avenue with ornamental varieties.

The site has housing to three sides and open-space to the west.

Nature Conservation Summary

The habitat diversity of this site is relatively limited. Although the woodland is old and some secondary growth of scrubby species has occurred more recently, there are just a few areas that exhibit semi-natural woodland characteristics. That said, the woodland structure is excellent due to the many mature trees.

The species diversity is not particularly high (93 plant species), however species of interest from the site include Bowles's golden grass, wood bluegrass, wood sanicle and sweet woodruff.

The site is likely to be of significant value for bats and breeding birds.

The site is an important element of the greenspace to the northwest of Polmont. It is also a key site in the woodland habitat network around the north and east of Polmont and linking to the Polmont Burn Wildlife corridor.

Conservation and Enhancement Opportunities

- Control invasive shrubs such as Rhododendron and Laurel to encourage a more natural ground-flora to develop;
- Control the invasive non-native Himalayan balsam;
- Woodland management, such as thinning, to create a diverse and more open woodland structure;
- Potential to involve the local community in future management of this site;
- Investigate potential for additional habitat enhancement/creation within current areas of amenity grassland.

15. Polmont Station

Grid Ref. NS 92575 78398

Area 7.2 Hectares

Key Features

Habitat (s)
Scrub
Neutral grassland
Woodland.

Species
High species diversity.

Connectivity
An important habitat corridor.

Community
Well used for recreation.

Description

This site is a narrow strip of neutral grassland with extensive areas of often mature scrub, situated on a high ridge in the centre of Polmont. There are a few areas of tall herbs and developing scrub and the east of the site supports areas of relic policy woodland.

The site is immediately adjacent to the Glasgow-Edinburgh railway line to the south and surrounded by housing on the remaining sides.

Nature Conservation Summary

Little of the habitat on this site is semi-natural; however there is an interesting mosaic of secondary habitat types including varied neutral grasslands, extensive mature and developing scrub and woodland. Good sized areas of relatively unimproved neutral grasslands are locally rare, particularly in an urban fringe setting like this site.

The species diversity for the site (131 plant species) is high. Species of interest include red sand spurrey and bladder campion. The mosaic of scrub and grassland is likely to be of importance for breeding birds, bats and other mammals.
This site has a particularly important role as a wildlife corridor linking directly to the railway corridor and beyond that to the Union Canal SINC.

Conservation and Enhancement Opportunities

- Introduce a beneficial grass cutting (or grazing) regime in key grassland zones;
- Clear scrub encroachment from remaining key grassland areas;
- Clear scrub to create glades and clearer path-side areas;
- Prevent further encroachment from neighbouring development;
- Control invasive non-native species such as Japanese knotweed.

16. Redding Grasslands

Grid Ref. NS 91250 78628

Area 10.6 Hectares

Key Features

Habitat (s)	Neutral and acidic grassland Woodland Scrub Heath-grassland mosaic.
Species	Good species diversity.
Connectivity	Part of an extensive habitat network through Redding and Polmont
Community	Some recreational use (eastern site).

Description

This site comprises two separate areas of abandoned pasture grassland; a larger eastern area (also known as the High Hill) and a western area. The eastern site supports large areas of mainly neutral abandoned pasture, an area of acidic grassland on the northwestern fringe and an area of acidic grass and heath vegetation.

Scrub and trees are scattered throughout the northern half of the site, some of which have been planted and now form dense immature wooded areas. The western site comprises a more uniform area of short pasture. The eastern site is surrounded by housing and the western site sits above Redding Road, sandwiched between the road and the railway line.

Nature Conservation Summary

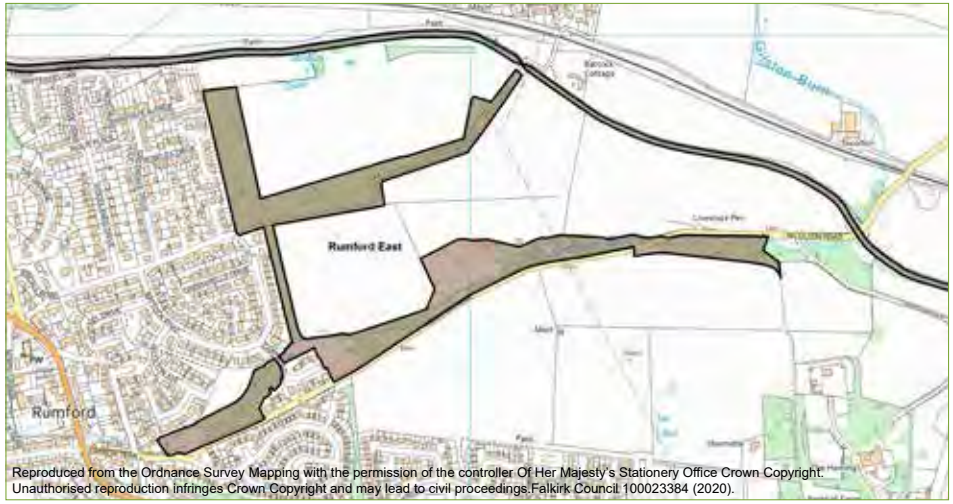
This is a relatively small but diverse site, with a good range of different habitat types. The eastern site in particular supports a range of interesting habitats including heath-grassland mosaic, and the LBAP priority habitats broadleaved woodland and neutral grassland. The scrub habitat is also of value, particularly occurring in mosaic with various grassland habitats. The relic pasture within the western site is of higher quality and exhibits quite a diverse range of species.

Overall the species diversity is good (87 plants recorded in the eastern site and 45 in the western site). Locally rare Common Wintergreen has been recorded within the northeast scrub woodland. The site is likely to be important for breeding birds and bats, and the LBAP priority species song thrush has also been recorded. The eastern site plays an important role in the green corridor linking the Westquarter burn to the west with greenspace around Polmont and further east. The western site links to the wildlife corridors formed by the adjacent railway line and Westquarter Burn wildlife site.

Conservation and Enhancement Opportunities

- Introduce beneficial grassland management/cutting in key locations;
- Manage grazing pressure/times within the western site to encourage species diversity;
- Consider potential for further tree planting in specific areas;
- Clear vegetation from path edges to provide a welcoming feel;
- Potential to develop a path network through the site;
- Enhance areas currently dominated by willowherb/thistle, possibly with some tree planting and/or grassland management.

17. Rumford East



Grid Ref. NS 93710 77733

Area 10.8 Hectares

Key Features

Habitat (s)	Woodland Scrub Neutral grassland Burn.
Species	High species diversity.
Connectivity	Important habitat network.
Community	Informal recreational use.

Description

This site consists of habitat along about 1km of the Gardrum Burn valley and an L-shaped block of mature woodland to the north, both connected by a strip of woodland running along the eastern edge of Rumford.

Habitats present include a large area of mixed deciduous woodland to the north, the Gardrum burn, dense scrub, rough grassland, developing scrub, areas of tall herbs and pockets of mature trees or riparian woodland.

Nature Conservation Summary

This site represents an area of mixed habitats forming a habitat corridor along the Gardrum Burn plus a large area of broadleaved woodland of long-established plantation origin to the north.

Habitat diversity is reasonably high and the long-established broadleaved woodland is of local significance. Species diversity for the site is high. Even without surveying within the northern woodland, 128 plant species have been recorded.

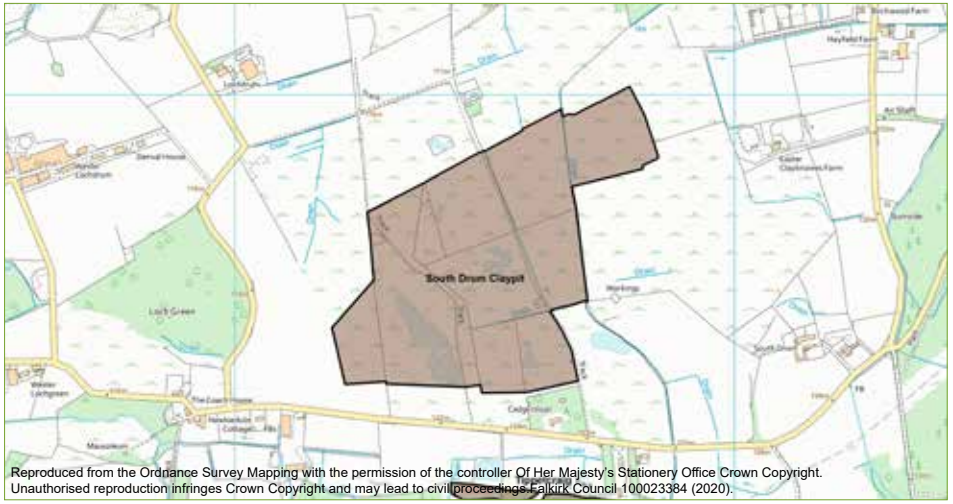
The site is likely to be of importance for breeding birds, bats and other mammals.

The wildlife corridor role of the site is particularly important. It forms an important habitat network in its own right and links to a wider network of habitat including the Forth and Clyde Canal, woodland around the Haining, and habitat up and down the Gardrum Burn.

Conservation and Enhancement Opportunities

- Japanese knotweed control;
- Management of key grassland areas to retain species diversity;
- Fence narrow woodland strip east of Rumford to exclude grazing;
- Avoid negative impacts from further adjacent development;
- Opportunities to expand woodland strips with additional adjacent tree planting.

18. South Drum Claypit



Grid Ref. NS 82509 77672

Area 22.2 Hectares

Key Features

Habitat (s)	Marsh and marshy grassland Basin mire Mesotrophic standing water Scrub Unimproved acid grassland.
Species	Likely to be good species diversity.
Connectivity	One of a number of similar sites nearby.
Community	Little or no recreational use.

Description

This old clay extraction works now supports a complex of habitats including ponds, marshy grassland, marsh and basin mire, and unimproved acid grassland.

The site is surrounded by agricultural land, mainly rough grazing. It is part of an extensive area of similar habitats which includes South Drum Moss Wester Drum and Lochgreen Moss Wildlife Sites.

Nature Conservation Summary

While the past disturbance of this site means little semi-natural habitat is present, it does support a varied mosaic of different habitat types. The marsh and basin mire are locally rare and LBAP priority habitats.

The eastern area of unimproved acid grassland pasture is also of local interest although it is unclear how species-rich this habitat is. The complex of ponds is also of note - and of UK importance if they are mesotropic, as suggested in a survey of 1994.

The species diversity is likely to be fairly high. The site is expected to be of value for breeding birds, invertebrates and amphibians.

The site is one of a number of similar sites nearby and helps to form a wider network of wetland and grassland habitats across the area.

Conservation and Enhancement Opportunities

- Survey and check the status of the water bodies on the site;
- Introduce a grazing regime on the grassland to promote species diversity;
- Control scrub in areas of marsh, mire and grassland.

19. South Polmont

Grid Ref. NS 93721 78515

Area 11.6 Hectares

Key Features

Habitat (s)
Broadleaved woodland
Scrub
Unimproved neutral grassland.

Species
Several locally rare species.

Connectivity
Part of a green network to the south of Polmont.

Community
Informal recreational use.

Description

This site consists of an undeveloped ridge (esker) supporting a mix of neglected grassland with developing scrub and some long established woodland. In addition the site includes the north facing slope beyond Skye Drive which supports a mosaic of grassland, tall herbs, scrub and established woodland.

The site is split into two distinct areas; the southern ridge sandwiched between housing and the north and western slopes surrounded by housing on three sides and open to Gilston Crescent to the south with amenity grassland beyond.

Nature Conservation Summary

The site has a diverse and complex mosaic of grassland, scrub and woodland habitat, including some areas of mature broadleaved woodland (an LBAP priority habitat). The areas of grassland, while not particularly species-rich, are of interest and quite variable in character.

Generally the species-diversity of the site is average (94 plant species recorded on site). A number of locally rare plant species occur including field scabious and common restharrow.

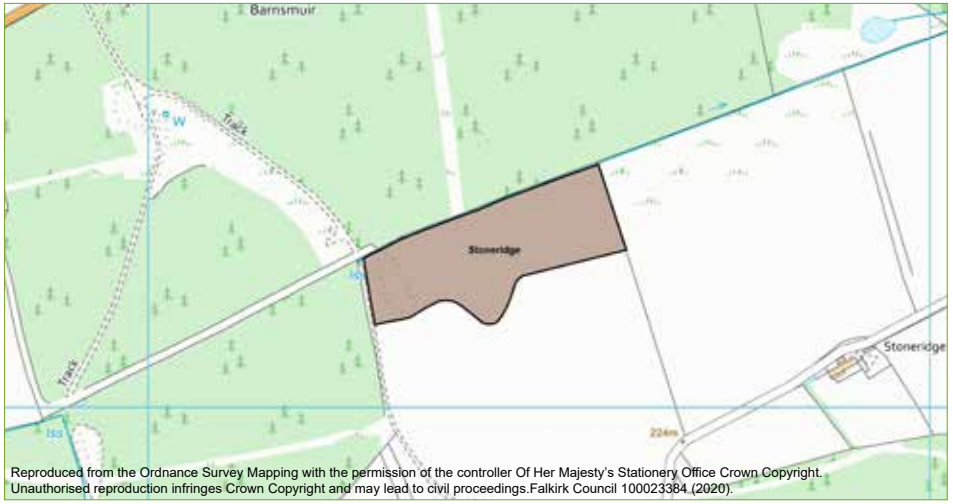
The site is structurally diverse and likely to be of value for both bats and breeding birds.

The site forms part of an extensive green corridor around the south of Polmont linking openspace to the west at Gray Buchanan park and along the Polmont Burn to openspace and the Gilston Burn to the east. Whilst elements of the site itself are now rather isolated, as a whole it performs an important role in the wider habitat network.

Conservation and Enhancement Opportunities

- Introduce a beneficial grassland management regime;
- Control scrub where it threatens key grassland areas;
- Investigate opportunities for woodland management.

20. Stoneridge



Grid Ref. NS 87443 70202

Area 3.5 Hectares

Key Features

Habitat (s)	Unimproved acid grassland Marsh and marshy grassland Basin mire.
Species	Good species diversity.
Connectivity	Isolated site.
Community	Little or no recreational use.

Description

This site is a small area of mixed habitats that have developed around an area of low-lying deep peat disturbed in the past by mining and agricultural activities.

The core site supports three main areas; a grassy bing to the west, slightly raised relic peat to the east, and a depressed area of complex, wetter mire in the middle.

The land to the north and west supports intensive forestry (or recently felled forestry). To the south the sloping ground supports semi-improved, poorly drained pasture and to the east is improved agriculture.

Nature Conservation Summary

This small site supports a reasonably good range of acidic grassland and mire species associated with a relic area of deep peat. Basin mire and marsh habitats are locally rare and LBAP priority habitats.

The diverse mosaic of habitats supports good species diversity (100 plant species recorded). Plant species include the LBAP priority Ragged Robin.

The isolated nature of this site within a relatively intensively managed landscape means this remnant of more semi-natural habitat is likely to be of particular importance within the immediate vicinity.

Conservation and Enhancement Opportunities

- Ensure alterations to drainage do not cause drying of the site;
- Prevent scrub encroachment of the grassland area on the bing;
- Use grazing or scarification to retain short grasses, bryophytes and lichens on the bing.

21. Summerford

Grid Ref. NS 86888 79579

Area 8.5 Hectares

Key Features

Habitat (s)	Woodland Scrub Neutral grassland.
Species	Average species diversity.
Connectivity	Part of an extensive habitat network.
Community	Good public access. Well used.

Description

This site comprises a large area of secondary grassland and woodland that has developed on an area of reclaimed bing and industrial works. The neutral wildflower grassland areas have developed through seed sowing and natural colonisation following remediation work on the site 10 years ago.

The woodland includes mature broadleaved and mixed woodland, particularly on the fringes of the site, and large areas of mainly birch regeneration or planting (with some willow and scots pine) within the centre of the site.

Summerford is set on the SW urban fringe of Falkirk. It is bounded on three sides by residential development and to the south by the Edinburgh-Glasgow railway and the Union Canal about 200m further south.

The site has a good network of paths and is well used for informal recreation.

Nature Conservation Summary

The mosaic of woodland and grassland habitats at this site is of value and the diversity of habitat types and structure may be improving with age and management. Neutral grassland is an LBAP priority habitat and species-rich examples are locally rare. The grassland at this site supports a range of wildflower species but the species-richness is currently unknown.

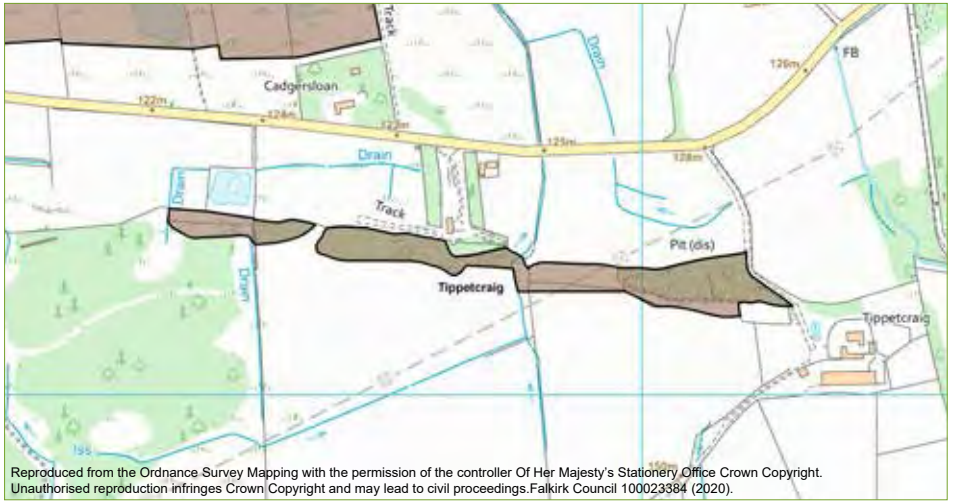
The site is likely to support an average species diversity, although again this may be improving as the woodland matures and undergoes management. The locally rare common wintergreen has been recorded on site, as has the LBAP priority species field scabious. The site is likely to be of value for breeding birds, bats and invertebrates.

The site links to a number of other valuable sites on the southern fringe of Falkirk, forming an important habitat network. In particular it links to the union canal and Bantaskine Estate SINCs, as well as the railway corridor.

Conservation and Enhancement Opportunities

- Continue control of Rhododendron and other invasive species;
- Grass cutting regime to encourage areas of wildflower meadow;
- Woodland management including some thinning;
- Open up paths and path junctions through selective thinning;
- Potential to boost native woodland ground flora by planting/seeding.

22. Tippetcraig



Grid Ref. NS 82512 677203

Area 2.5 Hectares

Key Features

Habitat (s)	Broadleaved semi-natural woodland Scrub Neutral and acid grassland Inland cliff Bracken.
Species	Diverse bryophyte and fern species.
Connectivity	Part of a woodland habitat network.
Community	Little or no recreational use.

Description

Tippetcraig is a small site comprised of a mix of vegetation associated with a dolerite rock outcrop, surrounded by improved agricultural pasture.

The steep slope and associated scree supports woodland and small examples of other habitats that have escaped agricultural improvement. These include a relic area of unimproved acid grassland and a small open outcrop of heath. To the east of the outcrop there is an old quarry face.

Nature Conservation Summary

This site represents a compact area of semi-natural habitats. Although the overall area is small the diversity of habitats is relatively good. Inland cliff/rock outcrops are a locally rare habitat and can support an interesting range of associated species.

Despite the small scale of the site the diversity of species is good (105 species recorded in original surveys).

The area is particularly good for bryophytes and a number of typical broadleaved herbs are also present. A feature of the steep rock face is the large number of ferns. LBAP priority species - bullfinch and song thrush have been recorded from the site.

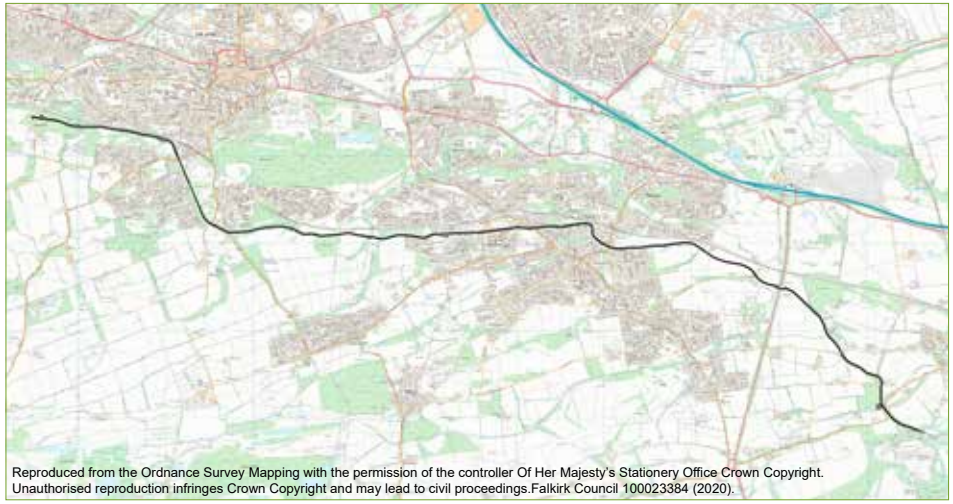
The site forms part of a woodland habitat network linking blocks of woodland to the west with Drum wood to the east.

The site is likely to provide an important refuge for wildlife within the wider improved agricultural landscape.

Conservation and Enhancement Opportunities

- Look at potential to introduce a beneficial grazing regime in grassland areas;
- Control scrub encroachment within grassland areas.

23. Union Canal



Grid Ref. NS 91944 77911

Area 13 Linear km

Key Features

Habitat (s)	Canal.
Species	Good marginal species diversity.
Connectivity	A key wildlife corridor.
Community	Accessible and well used.

Description

The Union Canal SINC runs from Bantaskine Estate around the south of Falkirk, through Polmont and on to the Avon aqueduct at Muiravonside in the southeast of the area.

The canal is open to boat traffic; however it still supports a range of interesting aquatic and marginal plant species. The habitats along the banks of the canal are varied ranging from woodland to more open areas of grassland and agriculture.

Access to one side of the canal is provided by a well maintained towpath; however this means that in many areas the other side of the canal remains relatively undisturbed by recreational use.

Nature Conservation Summary

Canals are an LBAP priority habitat. Despite the fact that the canal is kept clear for boat passage, it still retains an interesting range of marginal habitats and marginal and aquatic plants. Plant species of interest previously recorded within the canal include water mint, loosestrife, gypsywort and yellowflag iris.

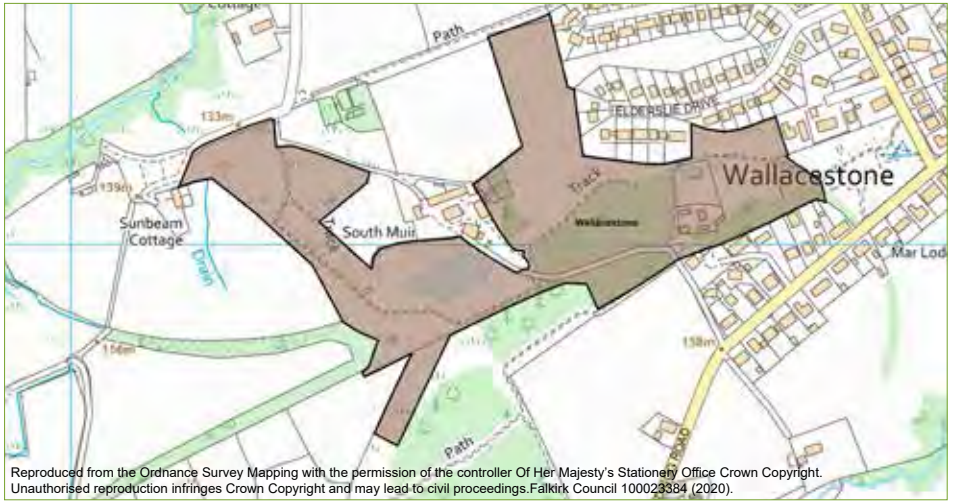
The canal is known to be used by otters and may also support water vole. The habitat is also important for bat species as well as a range of breeding birds and amphibians.

The canal forms a lengthy and important wildlife corridor through the area, linking a variety of other openspaces and areas of semi-natural habitat.

Conservation and Enhancement Opportunities

- Ensure canal management minimises disturbance to wildlife as far as possible;
- As a general rule retain one side of the canal as less accessible to limit disturbance and benefit wildlife;
- Control invasive non-native species within and adjacent to the canal, where feasible.

24. Wallacestone



Grid Ref. NS 91472 77030

Area 8.6 Hectares

Key Features

Habitat (s)	Neutral grassland Scrub Heath Standing water Mire Trees.
Species	High species diversity.
Connectivity	Links wildlife corridors along the Polmont and Gardrum Burns.
Community	Some recreational use.

Description

Wallacestone is a complex mosaic of short pasture grassland, coarse grassland, tall herbs, and scrub. The site also supports small areas of heath and a large pond.

Much of the habitat has developed in areas associated with past mining activity.

The site is situated on the western fringe of Wallacestone and is surrounded on three sides by improved agriculture extending east towards California.

Nature Conservation Summary

This relatively small site supports a very diverse range of different habitat types. The small area of wet heath and basin mire to the south of the site is of high value. Both heath and basin mire habitats area locally rare.

The large pond is of note and represents an LBAP priority habitat. The combination of the various different habitats is of note as together they present an area of high species diversity. 147 plant species have been recorded from the site including a number of acidic and mire type species. The site is known to be important for amphibian species.

The pond may also attract otters associated with the Polmont or Gardrum Burns. It is also likely to be of value to bats and breeding birds.

This site represents an important area of habitat helping to link the wildlife corridors of the Polmont and Gardrum Burns. It is within 300m of the Rumford West Wildlife Sites.

Conservation and Enhancement Opportunities

- Control the invasive Japanese knotweed;
- Management of heath areas to retain healthy vegetation;
- Grazing management to retain and improve species diversity in key grassland areas;
- Periodic cutting of the bing area to inhibit scrub growth and maintain the habitat mosaic;
- Periodic disturbance of the bing surface to promote typical bing vegetation;
- Survey of the pond area to determine the amphibian species present;
- Address encroachment from neighbouring gardens.

25. Belmont Avenue

Grid Ref. NS 90080 77287

Area 8.5 Hectares

Key Features

Habitat (s)
Broadleaved woodland (some ancient woodland)
Scrub
Running Water
Marshy Grassland
Herb-rich neutral grassland.

Species
99 higher plant species. Several LBAP priority species.
Potentially of value for bryophytes.

Connectivity
Forms a valuable habitat corridor along the westquarter burn.
Links to Westquarter Burn wildlife site.

Community
Well used and valued by the local community.
Formal and informal path network.

Description

Belmont Avenue lies immediately north of Shieldhill, southeast of Falkirk. It is easily accessed from Belmont Avenue and Easton Drive, and tracks from Easter Pirleyhill.

Two-thirds of the site is woodland and scrub habitats, focused around the valley created by the Westquarter Burn. There is well-established woodland up into Pirleyhill Glen and younger woodland, often with bracken dominated clearings, elsewhere.

The open, non-wooded ground in the south of the site is post-industrial, having been a coal pit and trackway in the 19th century. This area supports marshy and neutral grassland.

The site contains a good network of informal and formal footpaths and is clearly well used and valued by local people.

Nature Conservation Summary

This site has an interesting mosaic of woodland and dry and marshy grassland types.
The woodland of Pirleyhill Glen, in the north-east of the site, is ancient woodland of semi-natural origin. The rest of the woodland has the appearance of being well-established although past clearance has taken place. Broadleaved woodland is an LBAP priority habitat.

The majority of the grassland is marshy grassland. However the centre of the site supports drier neutral grassland with a relatively high abundance of flowering herb species. Unimproved neutral grassland is an LBAP priority habitat. Rivers and streams is also a priority LBAP habitat.

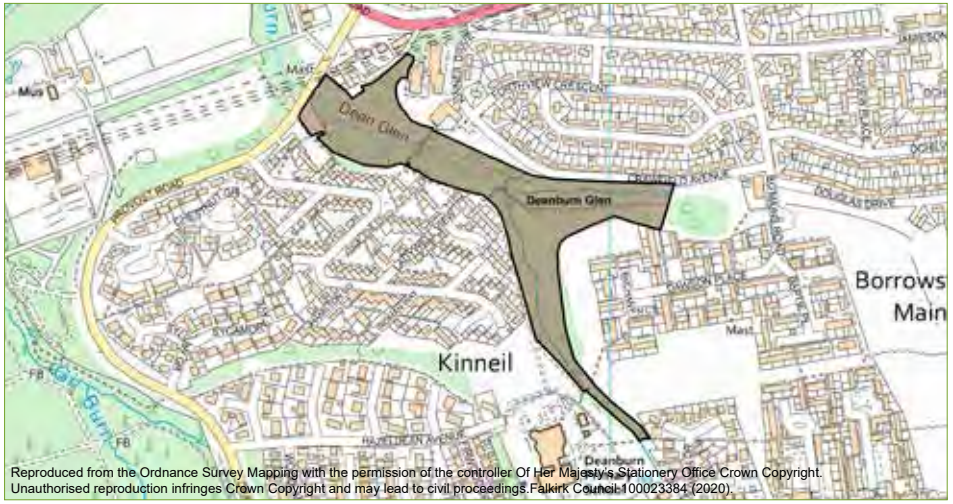
LBAP species known or likely to use the site include: bats, otter, cuckoo, dipper, wood warbler, spotted-flycatcher, amphibians, reptiles, wych elm and bluebell.

The site is well suited to low-key recreational use and is highly valued by local people.

Conservation and Enhancement Opportunities

- Keep steeper parts inaccessible to retain wilder areas and prevent erosion;
- Do regular litter removal;
- Provide simple interpretation and information signs at entrances;
- Retain dead wood within the site, forming invertebrate-friendly habitat piles;
- Allow some deadwood dams/blockages within the burn channel;
- Provide bat boxes, and nest boxes suitable for a range of birds;
- Do rush-cutting and bracken control to maintain and increase species diversity.

26. Deanburn Glen



Grid Ref. NS 98847 80505

Area 4.1 Hectares

Key Features

Habitat (s)	Broadleaved woodland Running water Amenity grassland.
Species	Average plant species diversity. Bat species likely.
Connectivity	Green corridor linking to Kinneil Estate and wider habitat networks to the north.
Community	A network of paths through the glen is well used for recreation. Some use of the site by local schools.

Description

Deanburn glen is a Y-shaped valley set between the housing estates and public open spaces of Kinneil and Maidenpark, southwest of Bo'ness. The Dean Burn flows through the glen in a north-westerly direction, passing under Provost Road at the site's western boundary. A number of formal access points allow entry to the site from the adjacent housing complexes.

Broad-leaved semi-natural woodland covers almost 90% of the site, covering and shading the steep sides of the glen in its entirety. The canopy is dominated by sycamore, and wych elm is frequent in the understorey.

The paths are well used.

Nature Conservation Summary

Broad-leaved and mixed woodlands, and urban wildlife corridors are LBAP priority habitats.

The site is likely to support a range of breeding woodland bird species and is also likely to support bats (LBAP priority species). Other LBAP species known or likely to occur include: bluebell, wych elm, hedgehog, bullfinch, house sparrow and song thrush.

The woodland is linked by a narrow 'green' corridor to similar and more expansive habitats to the north and to the Forth estuary.

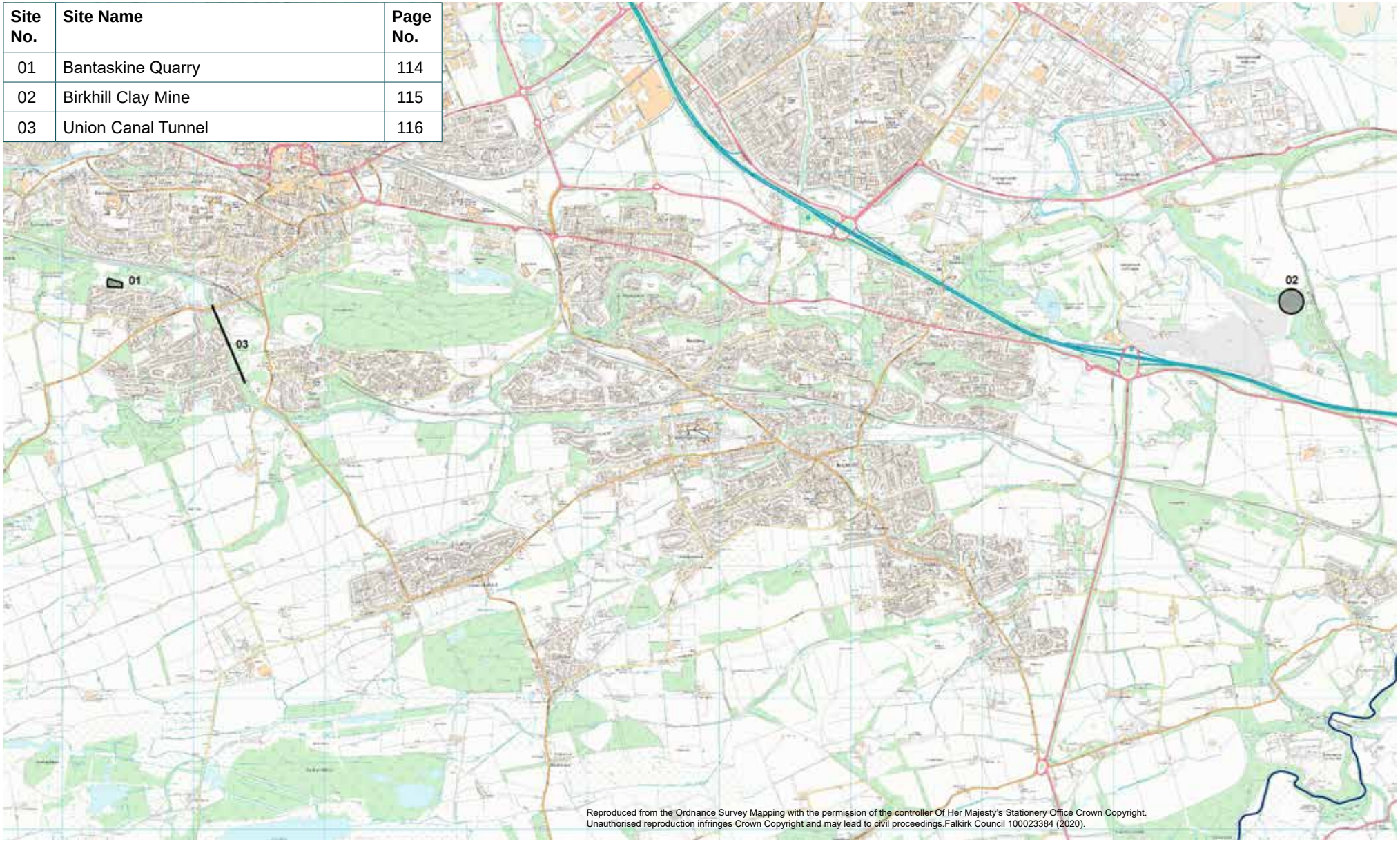
This is a relatively isolated area of semi-natural habitat within an urban area dominated by housing and by 'manicured' landscaping. It provides a relatively natural green corridor for safe and peaceful walking with easy foot access and within close range for local residents.

Conservation and Enhancement Opportunities

- Maintain difficulty of access to eastern arms of the site;
- Regular programme of litter removal and path maintenance;
- Provide simple interpretation and information signs at entrances;
- Increase light into parts of the woodland by creating clearings;
- Retain dead wood within the site, forming invertebrate-friendly habitat piles;
- Provide bat boxes, and nest boxes suitable for a range of birds;
- Remove the invasive non-native plant species, Rhododendron ponticum and Japanese knotweed.

List and Map of Geodiversity Sites

Site No.	Site Name	Page No.
01	Bantaskine Quarry	114
02	Birkhill Clay Mine	115
03	Union Canal Tunnel	116



01. Bantaskine Quarry

Grid Ref.	NS 87396 79151	Area	0.6 Hectares

Key Features

Geodiversity Features	Several disused sandstone quarries exhibiting visible strata. Over 10 different species of bivalves collected from the rock, their presence identifying the old workings of the upper Drumgray Coal seam.
Education & Research Value	Much of the section can be easily examined and the varied strata are readily visible.
Cultural & Historical Value	Links to past coal mining and quarrying of sandstone for building stone.
Accessibility	Easily accessible. Within a public park, with parking and paths.

Description

Bantaskine Quarry lies within the wider Bantaskine Estate, on the south-eastern outskirts of Falkirk.

By the mid 1800's Bantaskine Estate had 3 quarries. They were originally created to exploit the Upper Drumgray Coal seam, but sandstone beds above and below the coal seam were later quarried as building stone.

Viewfield Quarry - The most easterly, lying close to the canal bridge. The stone quarry face can still be seen.

Middle Quarry - Accessed from the Union Canal along a track. Now largely filled in.

U-Shaped Quarry - The most westerly. Accessed from the Union Canal along a track. The quarry face is covered in vegetation, mostly ivy.

By the 1890's the quarries appear to have been worked out. Both remaining quarries are generally overgrown with self-seeded trees, ivy and rhododendrons. The site is easily accessed by the public and for educational purposes.

Geodiversity Summary

The remaining sandstone quarries exhibit visible strata.

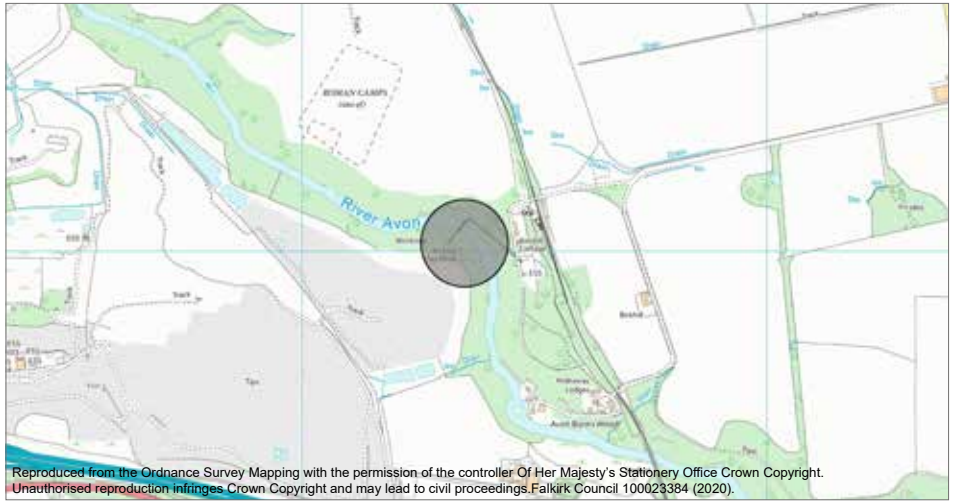
At least 3m of sandstone may have been quarried here. The Drumgray Coal seam can be identified by the presence of bivalves – over 10 different species. This rich fauna identifies the old mine working (stowed waste). Below the coal (fossilised swamp forest) there is the fossil soil (seatearth).

Both of the thick sandstones exposed in the quarry are fluvial in origin, having been deposited in a meandering or branching system of river channels. The siltstones between the two fossil bands and above the upper one are probably deltaic in origin, possibly resulting from the failure of a river bank levee. The scale of the low-lying waterlogged alluvial plains on which these coal swamps, rivers and lakes existed may have rivalled that of the Amazon basin. (http://earthwise.bgs.ac.uk)

Conservation and Enhancement Opportunities

- Maintain access to the site via informal paths within Bantaskine Estate;
- Include the quarry and its geology in possible future interpretation within the estate;
- Protect the quarry from damaging activity/development;
- Undertake litter removal and vegetation management as necessary.

02. Birkhill Clay Mine



Grid Ref. NS 96349 79017

Area Unknown

Key Features

Geodiversity Features	Disused fireclay mine. Examples of 'stoop & room' excavation method. Fossilised tree trunks and stumps visible in mine roof.
Education & Research Value	Previously high educational value allowing people direct experience of the mine environment. Potential future value if reopened at any stage.
Cultural & Historical Value	Good example of a fireclay mine with stoop & room excavation. Exemplifies the areas strong historical links with the mining industry.
Accessibility	Previously open to the public but not currently open.

Description

Birkhill Clay Mine is situated within the steep sided gorge of the river Avon, 1.5 miles southeast of the Grangemouth Refinery and 2.5 miles southwest of Bo'ness. Fireclay was mined there until 1980. After 1980 much of the mine became flooded. The mine was opened to visitors for a while but closed permanently in 2013.

Geodiversity Summary

The main mine adit is driven into the south side of the Avon valley at the outcrop of the Lower Fireclays. On entering the mine, the height of the roadway and galleries of four to five metres is visible. Here the roof of the mine is formed by a very siliceous, medium to coarse-grained, white sandstone, over 6 m thick, a lithology which typifies the Passage Group.

Powerful lamps reveal in the sandstone roof many fossilised tree trunks which collected together as log jams in the Namurian rivers. Stumps of large trees can be seen rooted in the fireclay and protruding upwards into the sandstone.

In side galleries the size of the rooms and the clay pillars left in to support the roof can be seen. This style of extraction is called stoop and room, or pillar and stall, working. (http://earthwise.bgs.ac.uk)

Conservation and Enhancement Opportunities

- Interpret and promote the history of the mine and its geological interest as opportunities arise.

03. Union Canal Tunnel

Grid Ref. NS 88269 78683

Area 630 metres

Key Features

Geodiversity Features	Flowstone curtains (calcified forms and stalactites on the tunnel roof and sides).
Education & Research Value	Readily visible examples of flowstone curtains.
Cultural & Historical Value	The longest canal tunnel to be built in Scotland, completed in 1822. Excavated by hand from solid limestone and millstone.
Accessibility	Easily accessible by following towpath through the tunnel or by canal boat. Lighting provided within the tunnel.

Description

Built in 1818-22, this is the longest canal tunnel to be built in Scotland. It is carved through 630m of solid rock, with evidence of the navvies candle holders, dynamite stores and shafts still visible. The tunnel lies to the south-east of Falkirk, on the Union Canal.

The tunnel is well lit, with a path and handrail for pedestrians. It is well used by pedestrians and boat traffic.

Geodiversity Summary

The tunnel exhibits very visible examples of flowstone curtains, mineral deposits forming sheet like shapes on the tunnel walls and ceiling. These have formed where water, carrying dissolved minerals, has dripped/flowed down the tunnel walls.

Conservation and Enhancement Opportunities

- Continue to maintain public access to the tunnel and promote it as a visitor attraction;
- Provide geological information in interpretation about the tunnel.

Appendix 1 : References and Useful Contacts

References

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"Scottish Planning Policy".

SNH, 2006,
"Guidance on Establishing and Managing Local Nature Conservation Site Systems in Scotland".

Useful Contacts

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Email: contact@greenactiontrust.org

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Email: forth@nature.scot

Scottish Wildlife Trust
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110 Commercial Street
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Email: enquiries@swt.org.uk

British Geological Survey
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Edinburgh
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Telephone: 0131 667 1000
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