The Seven Lochs Wetland Park

masterplan and visioning study

COLLECTIVEARCHITECTURE

AECOM

BW+

MCM ASSOCIATES LTD

The Seven Lochs Wetland Park

masterplan and visioning study

Employer: Glasgow and Clyde Valley Green Network Partnership / International Resources and Recycling Institute

Agent: Collective Architecture
26 Gallowgate
Glasgow
G1 5AB

Prepared by:
Collective Architecture

with: Aecom (Landscaping / Ecology and GIS Specialist)
Brown and Wallace (Cost Consultancy)
MCM Associates (Funding Strategy)

Approved by:
Scott Ferguson
Project Manager

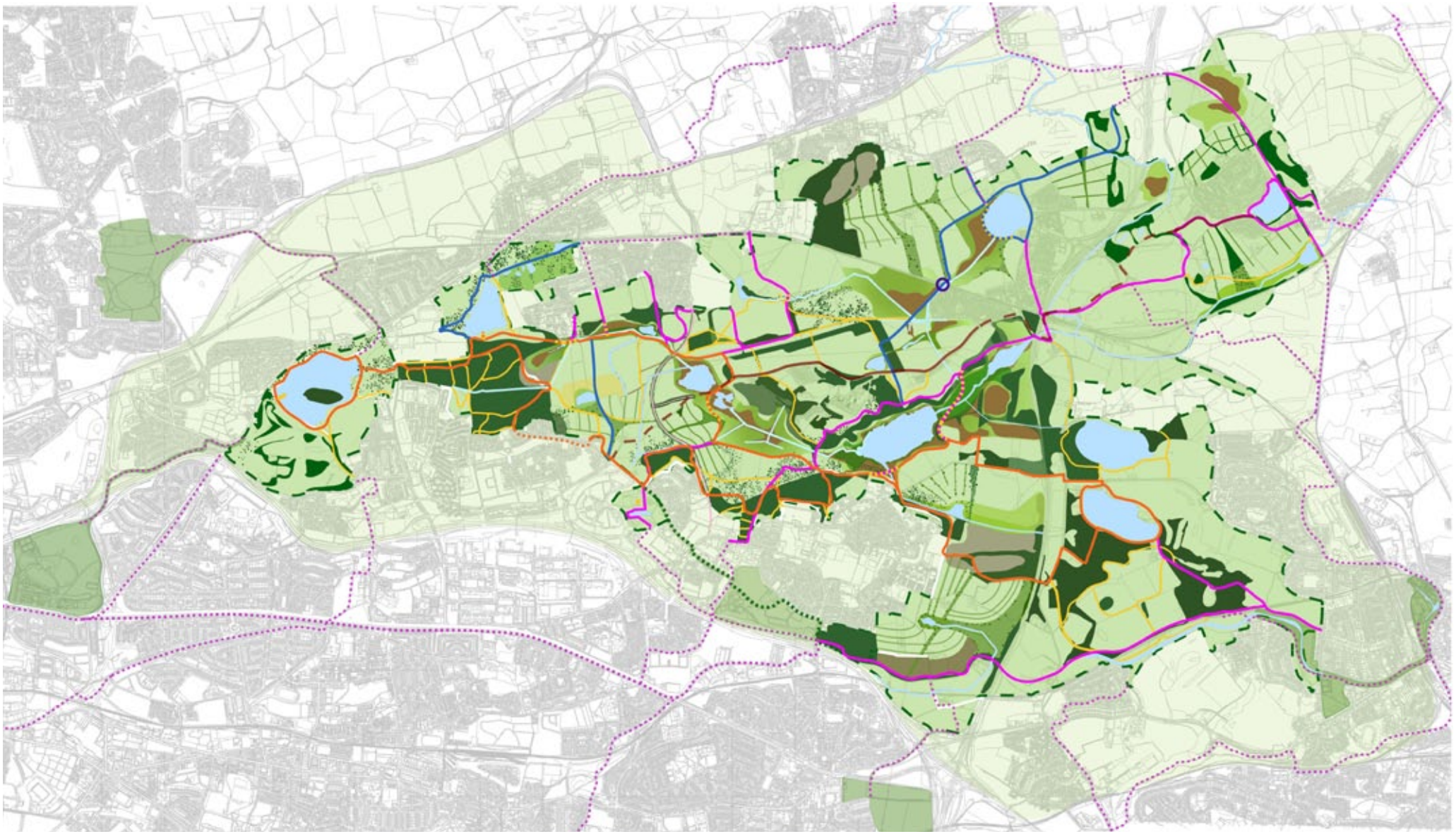
Status: Final Document

Date: March 2013

Contents

01 Approach

Setting the project in a wider context



Introduction

The lochs and wetlands within the Gartloch and Gartcosh area are one of Glasgow and Clyde Valley's hidden treasures. In recent years they have formed the basis of a number of studies and reports. These provide a detailed understanding of the area's hydrological significance, carefully document its unique wildlife and heritage, and investigate the area's potential for providing for new homes.

The Seven Lochs Wetland Park vision and masterplan builds upon the wealth of information in these reports to set out proposals for the creation of a new wetland park of national, and indeed, international significance. This report sets out a clear vision and identity for the park, defines its physical extent and proposes well defined phases of work for the creation and on-going development of the park.

The Seven Lochs Wetland Park provides an opportunity to:

- recognise and promote the unique character of the area;
- protect and enhance the existing heritage and natural heritage;
- consider the area as a whole in terms of its hydrology, heritage and recreational importance.

The success of the park is dependent upon a number of key factors. Its creation and management must link with ongoing regeneration activity in surrounding communities, ensuring that it is recognised as an important local resource and is well used. A strong 'heritage and nature' identity must be established for the park, attracting visitors from further afield, and helping to protect the area from over-development. Sustainable management of water and land must support and enhance vital ecosystem services. New development within and around the park must be based on sensitive and innovative design that uses new integrated green infrastructure to strengthen the edges of the park, provide routes into the park from surrounding areas and link existing habitats to create wider habitat networks.

Fig 1.01 Map showing other SIGMA for Water project locations throughout Europe

Fig. 1.02 Images of other SIGMA for Water project locations

European Union context

The Seven Lochs Wetland Park masterplan and visioning study has been undertaken as part of the SIGMA for Water programme funded by the INTERREG IVC program. INTERREG IVC provides funding for inter-regional co-operation across Europe. It is implemented under the European Union's territorial co-operation objective and is financed through the European Regional Development Fund. SIGMA for Water involves 11 projects within 8 European Union countries, undertaken between January 2010 and the spring of 2013.

The overall objective of the SIGMA for Water project is masterplanning for the restoration of existing lakes and wetlands, the development of new lakes and wetlands for climate change adaptation, and the improvement of the environmental quality of the partner regions.

The International Resources and Recycling Institute, as the Scottish partner in the Sigma for Water project, is working with the Glasgow and Clyde Valley Green Network Partnership on the Seven Lochs Wetland Park project. The project aims to support the creation of habitat networks and develop opportunities for recreation and tourism within a unique wetland area through the preparation of the Seven Lochs Wetland Park masterplan and visioning study and associated funding and action plans. Drawing on real examples from across the EU, the principle outputs from the Sigma for Water project will be tailored guidance on the preparation of masterplans and delivery plans for lakes and wetlands, and policy recommendations to support better planning and management of lake and wetland environments.

European Union
European Regional Development Fund

Sigma for water

INTERREG IVC
INNOVATION & ENVIRONMENT
REGIONS OF EUROPE SHARING SOLUTIONS

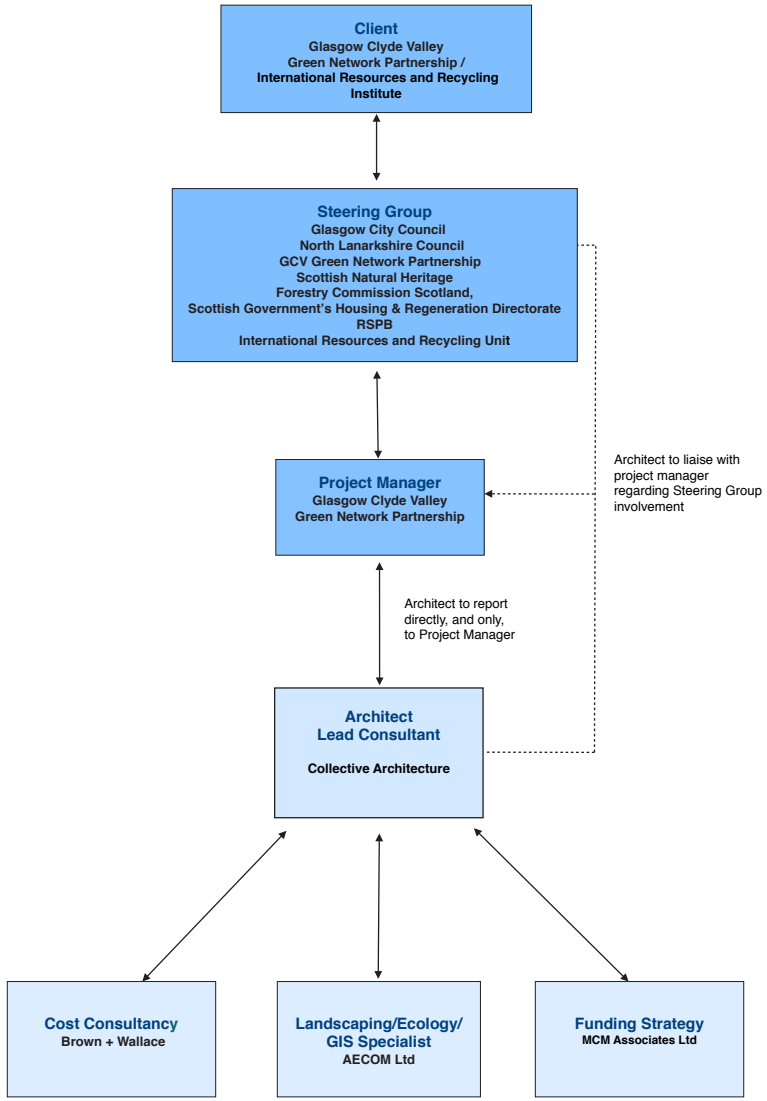


Fig 1.03 Team matrix

Governance - description of project partners

The relationship of the Seven Lochs Wetland Park design team to the client and the steering group is illustrated in figure no 1.03.

Client -The clients for the study were the Glasgow and Clyde Valley Green Network Partnership, and the International Resources and Recycling Institute, who are the Scottish Partner in the SIGMA for Water project.

Steering Group - A Steering Group oversaw the delivery of the project and comprised representatives from the organisations that formed the Gartloch Gartcosh Strategic Delivery Partnership, namely Glasgow City Council, North Lanarkshire Council, Glasgow and Clyde Valley Green Network Partnership, Scottish Natural Heritage, Forestry Commission Scotland, the Scottish Government's Housing and Regeneration Directorate, RSPB Scotland, and the International Resources and Recycling Institute. A number of meetings took place during the study (refer to appendices).

Project Manager -The project team reported on a day to day basis to the Glasgow and Clyde Valley Green Network Partnership's Development Officer for the Gartloch Gartcosh Green Network, who was the Project Manager, and who reported directly to the Steering Group.

Project Team - Collective Architecture (Lead Consultant and Architect) managed the delivery of design services, which included specialist input from AECOM for Landscape Architecture, Ecology and GIS specialism, Brown & Wallace for Cost Consultancy, and MCM Associates for Strategic Funding.

02 Vision and key principles

The creation of a wetland park

Fig. 2.01 Visions of the wetland park

The vision

The overarching vision for the Seven Lochs Wetland Park is:

to create a new wetland park of national significance between Glasgow and North Lanarkshire, and to deliver, manage and sustain a high quality innovative wetland environment that will:

- Protect and enhance the heritage and biodiversity of the area as a national resource

- Promote the general health and wellbeing of both visitors and residents alike, and

- Have a major impact on the environmental, social and economic regeneration of the area.

The specific aims of the wetland park are to:

- Protect, conserve and enhance the natural environment, biodiversity and cultural heritage of the Seven Lochs Wetland Park area for present and future generations to experience and enjoy.

- Promote understanding, awareness and appreciation of the importance of the unique wetland environment and heritage, and involve local communities in its development and management.

- Support training and skills development and create opportunities for new economic activity.

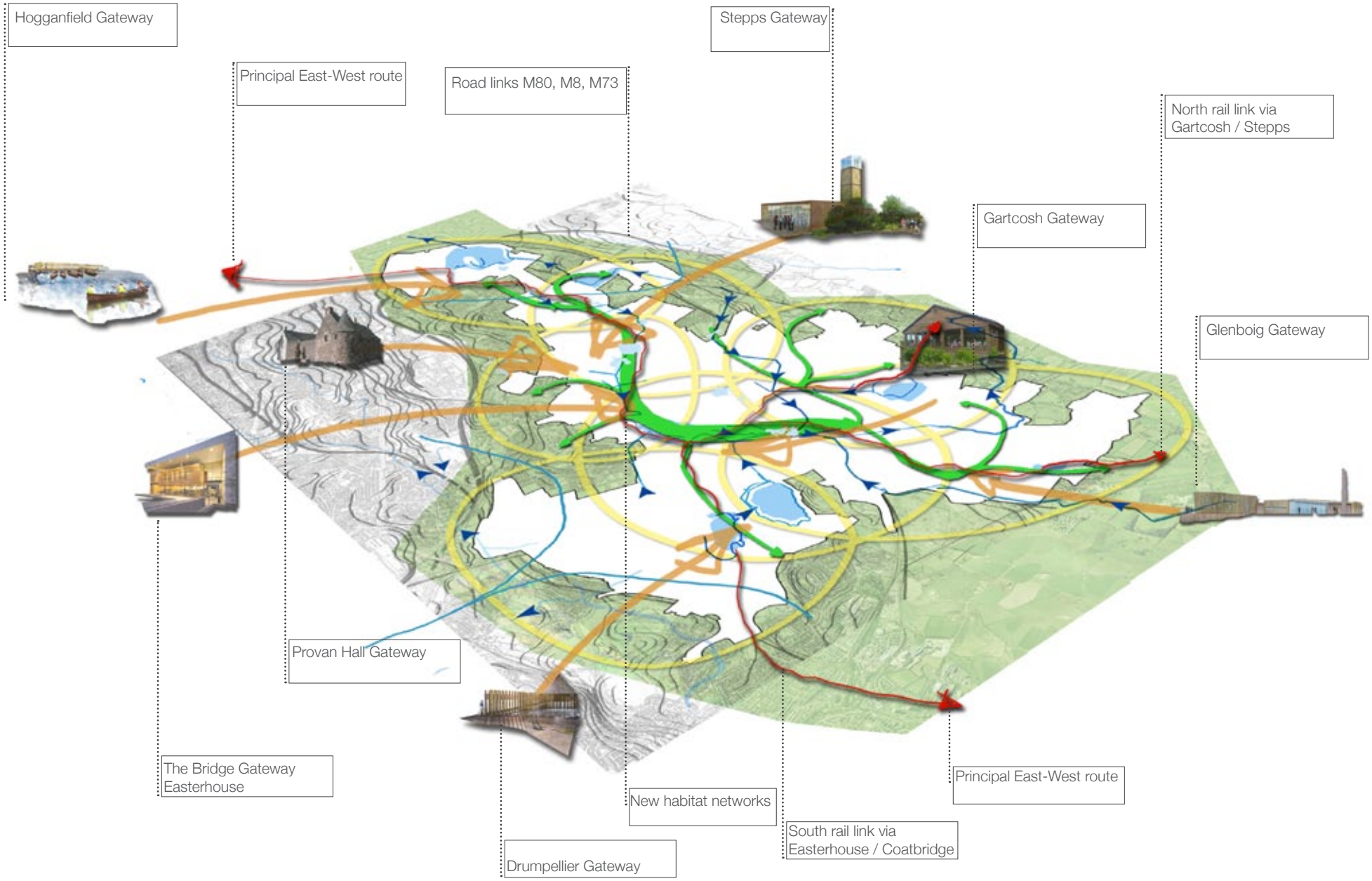


Fig. 2.02 - Strategy schematic

The rationale

The Gartloch Gartcosh area is of high value in terms of both natural and cultural heritage. The area includes a number of significant heritage sites – from the Iron Age to recent industrial heritage – as well as a diverse range of habitats which support a wealth of important species. However, its location on the edge of an expanding metropolitan area also means that existing greenspace resources will come under pressure in the coming years due to regeneration initiatives and plans to create up to 4300 new homes over the next 10 – 15 years.

The existing high quality habitat, on-going social and economic regeneration, and future development plans, provide an exciting opportunity to enhance and expand the Glasgow and Clyde Valley Green Network. The area offers a great opportunity to show how a new wetland park at the heart of a wider Green Network can provide a framework for the development of sustainable communities, protect and enhance heritage and natural heritage, provide new opportunities for leisure, recreation and tourism, and establish the area as an attractive place to live, work and visit.

The integration of planned development within the wetland park also provides an opportunity to demonstrate how integrated green infrastructure – which combines SUDS features, habitat corridors, access networks and high quality green spaces – can be incorporated into new developments to help design and deliver better places.

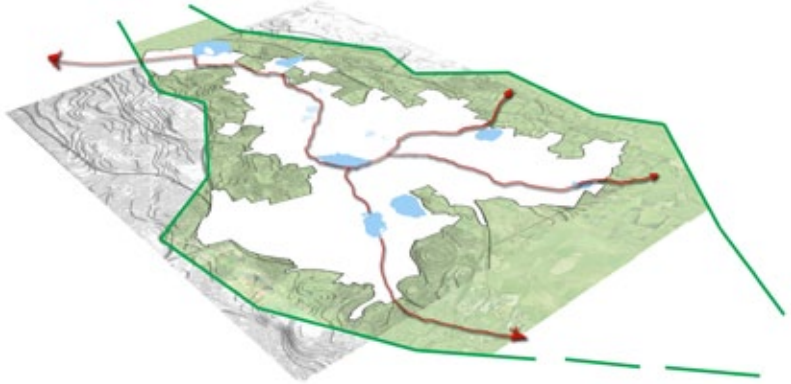


Fig. 2.03 Delineation of a green corridor and strategic routes

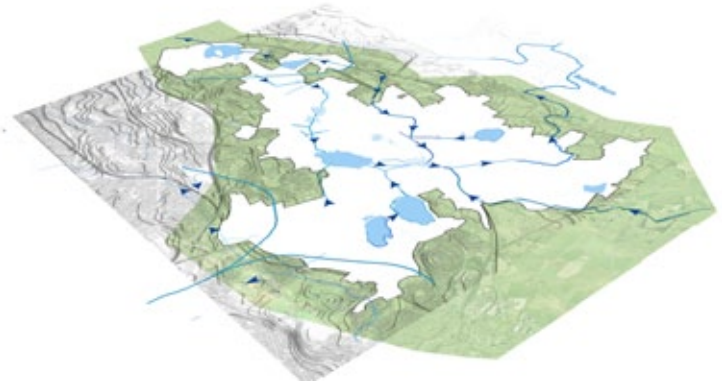


Fig. 2.04 Integrate strategy for water management

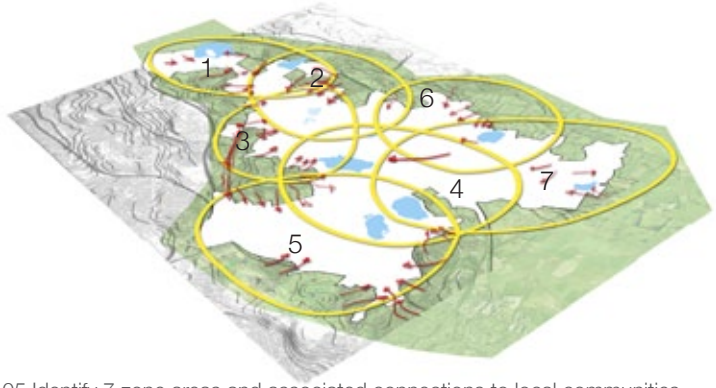


Fig. 2.05 Identify 7 zone areas and associated connections to local communities

Fig. 2.06 Expand existing habitat networks

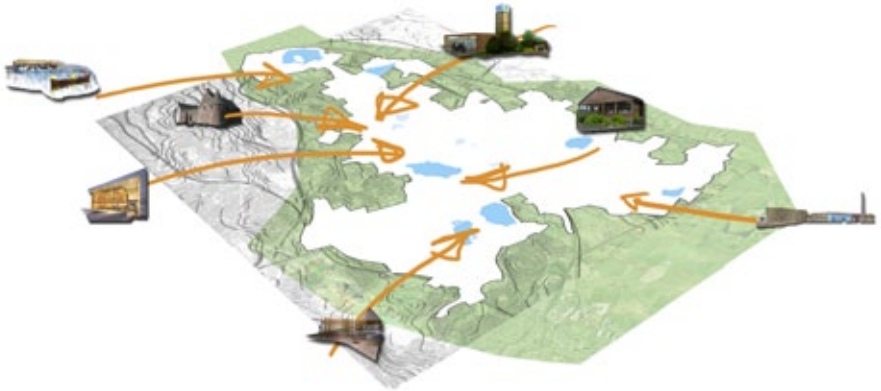


Fig. 2.07 Identify 7 principal gateways buildings

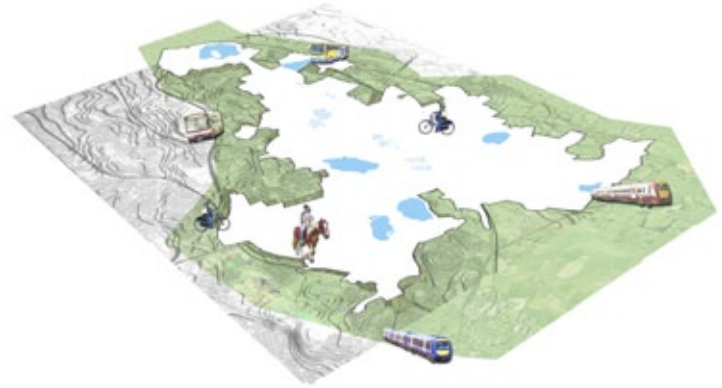


Fig. 2.08 Enhance connectivity with existing and new transport links

The key principles

Guiding principles agreed for the creation of the Seven Lochs Wetland Park

- Integrate a strategy for current and future water management into the creation and management of the wetland park, with an emphasis on flood risk mitigation and improving water quality.

- Support regeneration and the creation of better places by integrating new development into the wetland park and linking the park with neighbouring communities through a network of high quality, accessible greenspaces.

- Co-ordinate environmental enhancement across the area, protecting and enhancing existing landscapes, and creating new water bodies, wetlands and other habitats to expand existing habitat networks.

- Plan for the future by identifying, protecting and enhancing vital ecosystem services and integrating climate change adaptation and mitigation into the park plan.

- Encourage education, enjoyment, and participation, and support training, job creation and the growth of social enterprises, using gateway buildings as a focus for recreational activity at key locations in around the wetland park.

- Promote public access and wellbeing by developing routes through the wetland park which link accessible gateways with key heritage and natural heritage features and encouraging connectivity.

- Identify specific zones within the park which relate to surrounding communities, and propose site specific interventions and focal points to encourage park interaction.

Fig 2.09 Identity schematic - community education and recreation

Strong Identity

- Awareness and understanding of the wetland park as a single entity – that it is more than the sum of its parts - will promote its wider use and help prevent areas from becoming associated with only one community or activity.

- Seven gateway buildings – using new, refurbished and existing buildings around the edges of the park - will have a crucial role in establishing and raising awareness of the park identity.

- A strong identity based upon clear signage and branding is particularly important in areas where the park is cut off by roads and railway lines. A clear sense of welcome, orientation and route finding at these points will help ensure they do not become underused and neglected.

- Distinctive architectural interventions will support a clear identify by creating new and recognisable landmarks.

- A strong identity for the wetland park will influence the design of new developments within and around the park, ensuring these strengthen the edges of the wetland park and encourage good hydrological, habitat and access connections to surrounding areas.

- The success of the Seven Lochs Wetland Park will depend upon individual sites and features that are easy to locate and access, but which are also clearly connected to other sites / features. Seven Zones within the park will work both independently and in unison, retaining their own distinctive character within the overall identity of the wetland park.

Identity

The proposed Seven Lochs Wetland Park will be Scotland's largest urban nature park. It has the potential to become a landmark destination within the central belt of Scotland, on both a regional and national scale. A clear identity, linked to clear and visible signage and innovative marketing, will advertise the wetland park to potential visitors.

The identity of the park is linked to its two main roles, as an ecologically diverse wetland sustaining and protecting a range of habitats and species, and as an attractive and accessible recreational resource for use by the local community and visitors alike. A balance between recreation and conservation is vital, ensuring that recreational use does not compromise important habitats and wildlife within the park.

Encouraging residents in communities around the park to access and enjoy the recreational opportunities the park offers must aim to quickly establish the park as a treasured local asset and community resource. Involving people, particularly young people, in the planning and design of the park will also engender a sense of ownership and respect for the wetlands amongst the surrounding communities. Green fingers extending into the communities surrounding the wetlands will further enhance the identity of the park.

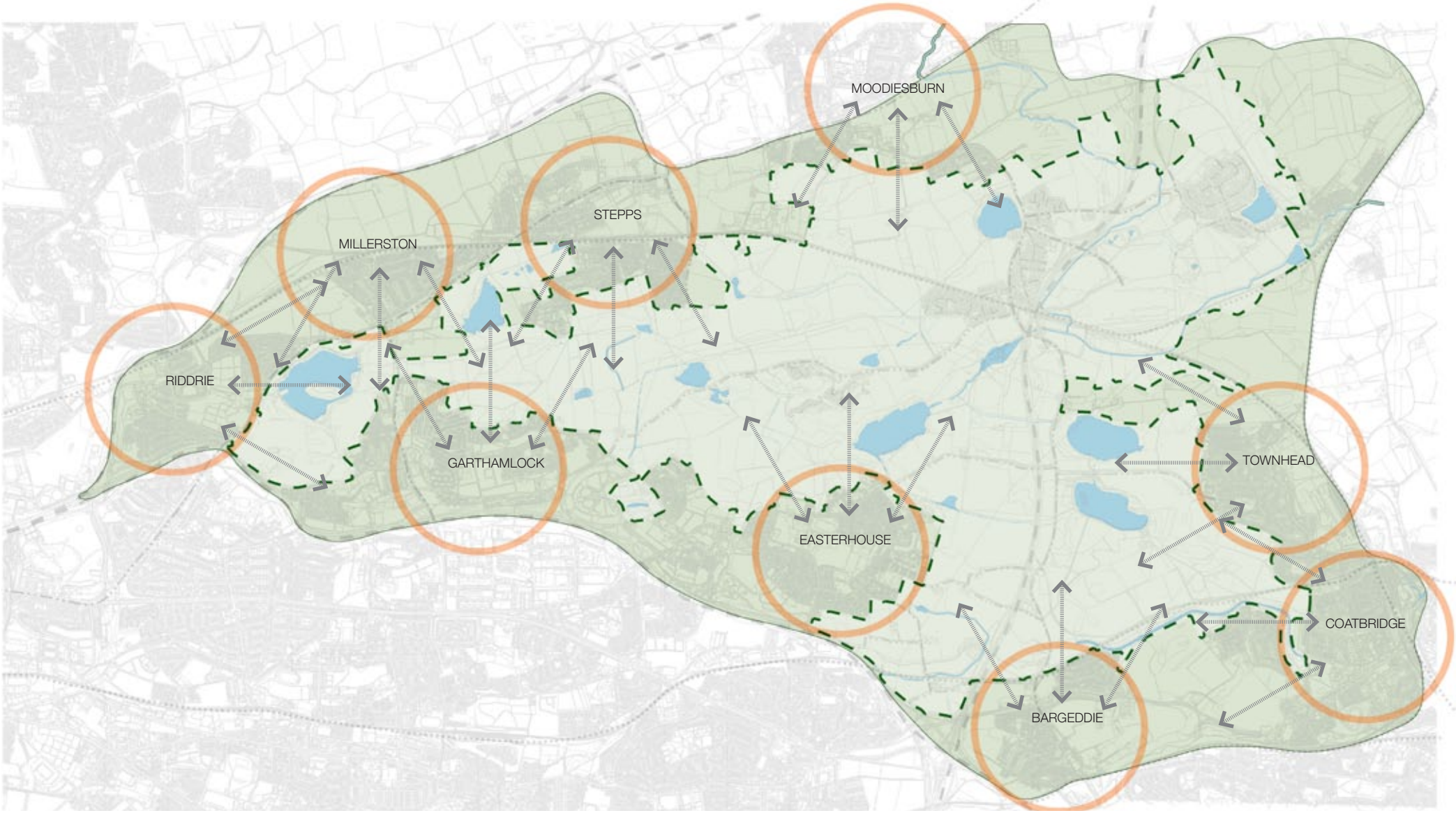


Fig 2.10 Permeable boundaries

Permeable boundaries - ‘a zone of influence’

One crucial aspect of the strategy for the park is that it is the heart of a wider Green Network. The creation and development of the park must help co-ordinate and support environmental enhancement, increased access to quality greenspace and socio-economic regeneration beyond its defined boundaries. To support developing a clear identity for the park, a boundary which follows the green belt and other designated site boundaries around existing settlements, has been defined. However, this should not be viewed as a ‘hard edge’, but rather as a ‘permeable boundary’.

Creating habitat and access links across the park boundary is as important to the development of the wetland park as creating new links within the park boundary. These outward links will connect the park to surrounding communities, and support the enhancement and use of greenspaces not included within the immediate park boundary. This secondary buffer, defined primarily by major transport infrastructure such as motorways and railway lines, defines a wider ‘zone of influence’ surrounding the immediate park.

03 Context

Understanding the site

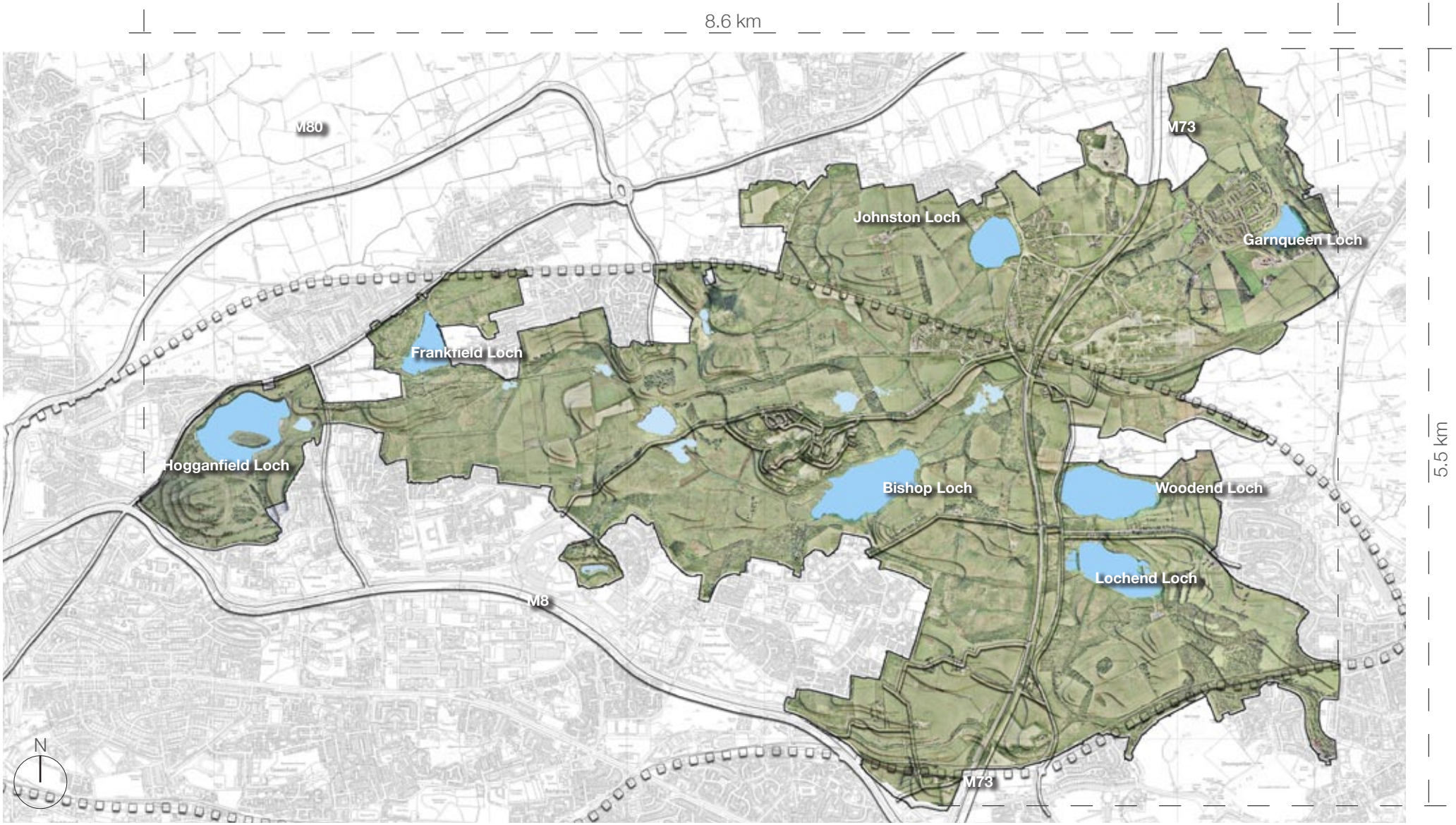


Fig. 3.01 The site

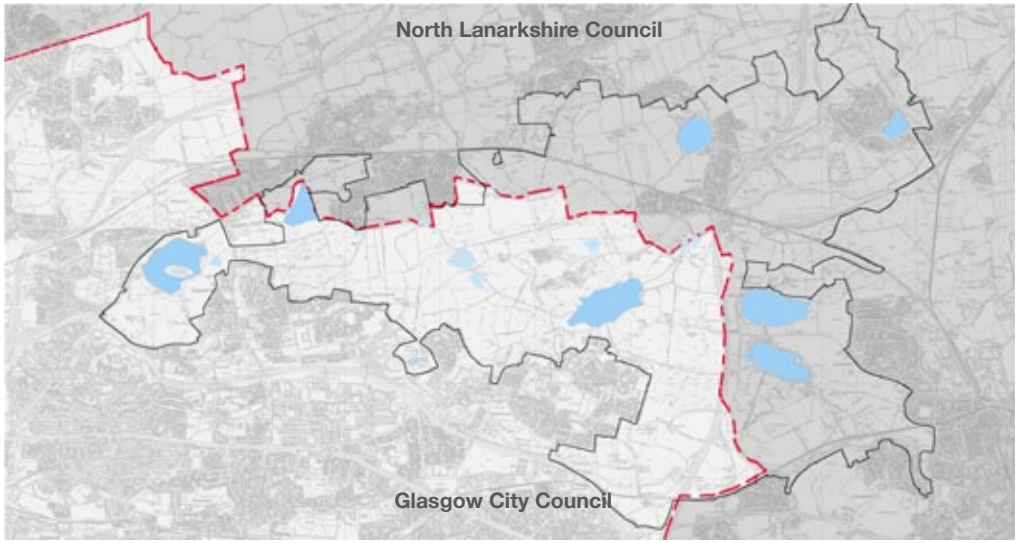


Fig. 3.02 Boundary

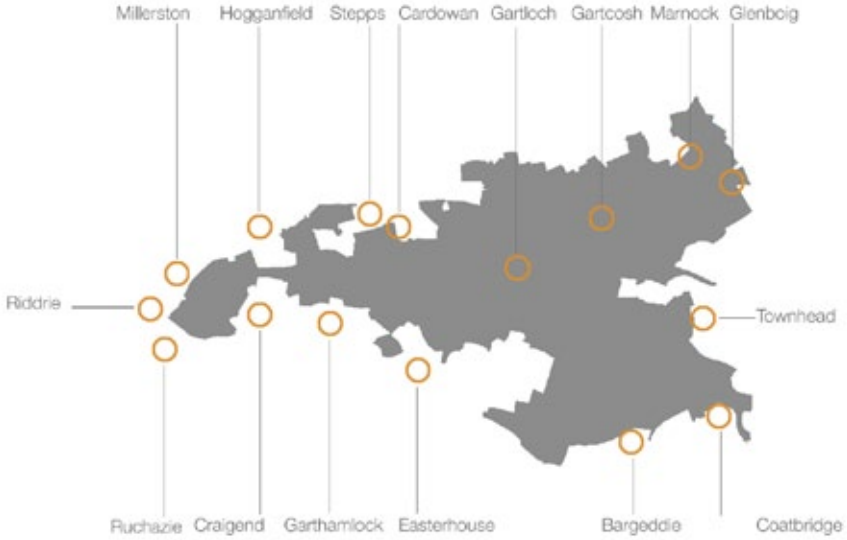


Fig. 3.03 Surrounding communities

Site description

The proposed Seven Lochs Wetland Park is a 19.3 square kilometre area in the central belt of Scotland, spanning the Glasgow City and North Lanarkshire Council boundary. The western edge of the park is just 5 kilometres (3 miles) east of Glasgow City Centre. The park stretches for 8.6 kilometres (5.4 miles) east to west at its widest extents, from the east end of Glasgow towards Coatbridge in North Lanarkshire.

The key landscape features in the area are seven kettle ponds and associated wetlands formed during the last ice age. Around the lochs and wetlands are areas of agricultural land (both working and fallow), areas of ancient and long established woodland, and areas of grassland, which in turn give way to the urban edge of Glasgow and the surrounding settlements of Coatbridge, Stepps and Gartcosh.

The site is of considerable ecological importance for wildlife and contains one of the largest areas of reedbed habitat in Central Scotland. Existing designations on the site include 2 Sites of Special Scientific Interest (SSSI), 5 Local Nature Reserves (LNR) and a country park at Drumpellier. The site is used by the surrounding communities, primarily for informal recreation. Hogganfield Park and Drumpellier Country Park at either end of the site are currently well used, but there are few formal recreational areas or routes currently defined within the main body of the park.

The wetland park area is mainly undeveloped, although the site boundary encompasses the existing settlements of Gartcosh and Glenboig in North Lanarkshire, and the new residential development on the site of the former Gartloch Hospital in Glasgow City. The site is surrounded by low density post-war housing developments, some of which are recognised as areas of significant multiple deprivation. Around the park boundary there are a number of areas of new housing development – for example at Cardowan and around Frankfield Loch in North Lanarkshire – and housing regeneration – for example at Garthamlock and Easterhouse in Glasgow City. The western boundary of the site is connected directly into Glasgow's east end communities.

Fig. 3.04 Bishop Loch viewed from the north bank

Fig. 3.05 Hogganfield Loch looking towards the central island

Fig. 3.06 Lochend Loch viewed from the visitor facility on the north bank

Fig.3.07 Easterhouse and Bishop Loch


Fig. 3.08 Gartloch Road


Fig. 3.09 Hogganfield Loch


Fig 3.10 Close proximity of wetland and housing

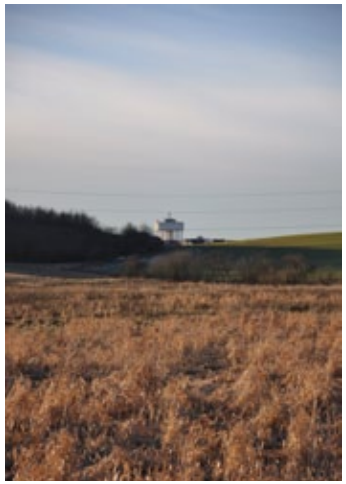


Fig. 3.11 Vertical elements


Fig. 3.12 Bishop Loch


Fig. 3.13 M73 and site


Fig. 3.14 Extensive wetland


Fig. 3.15 Woodland and wetland areas

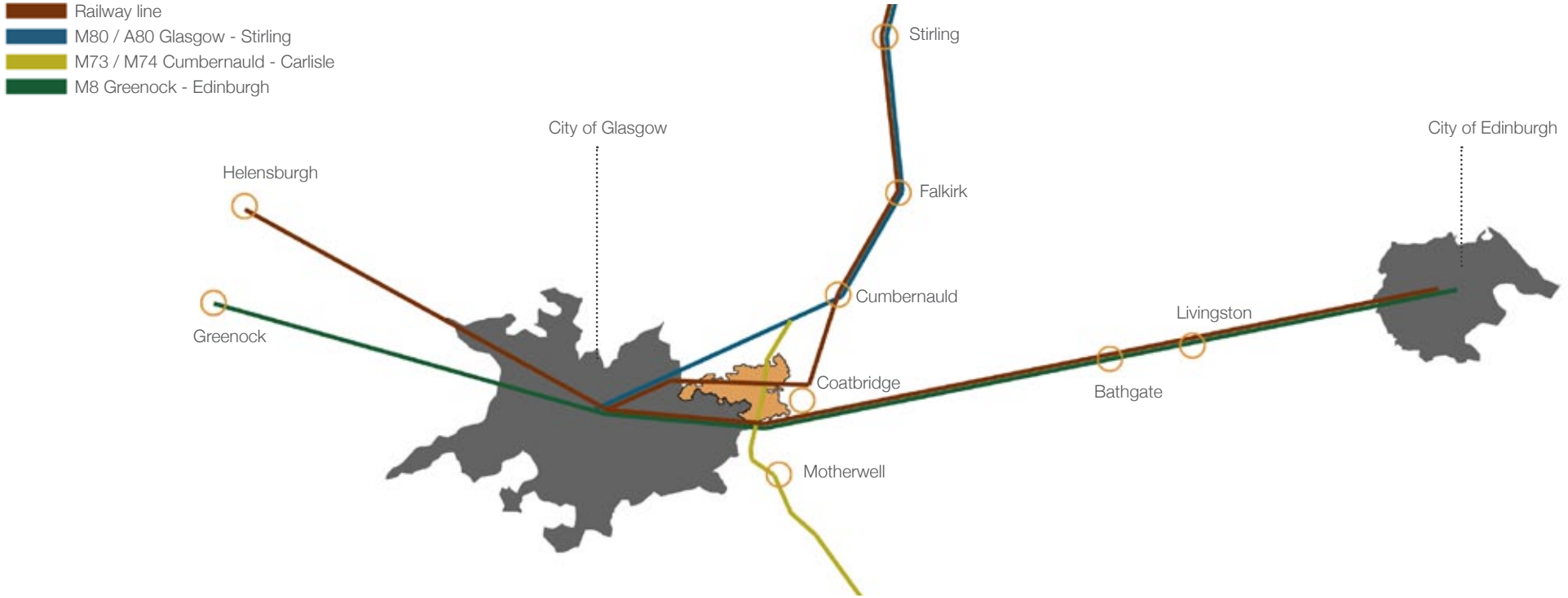
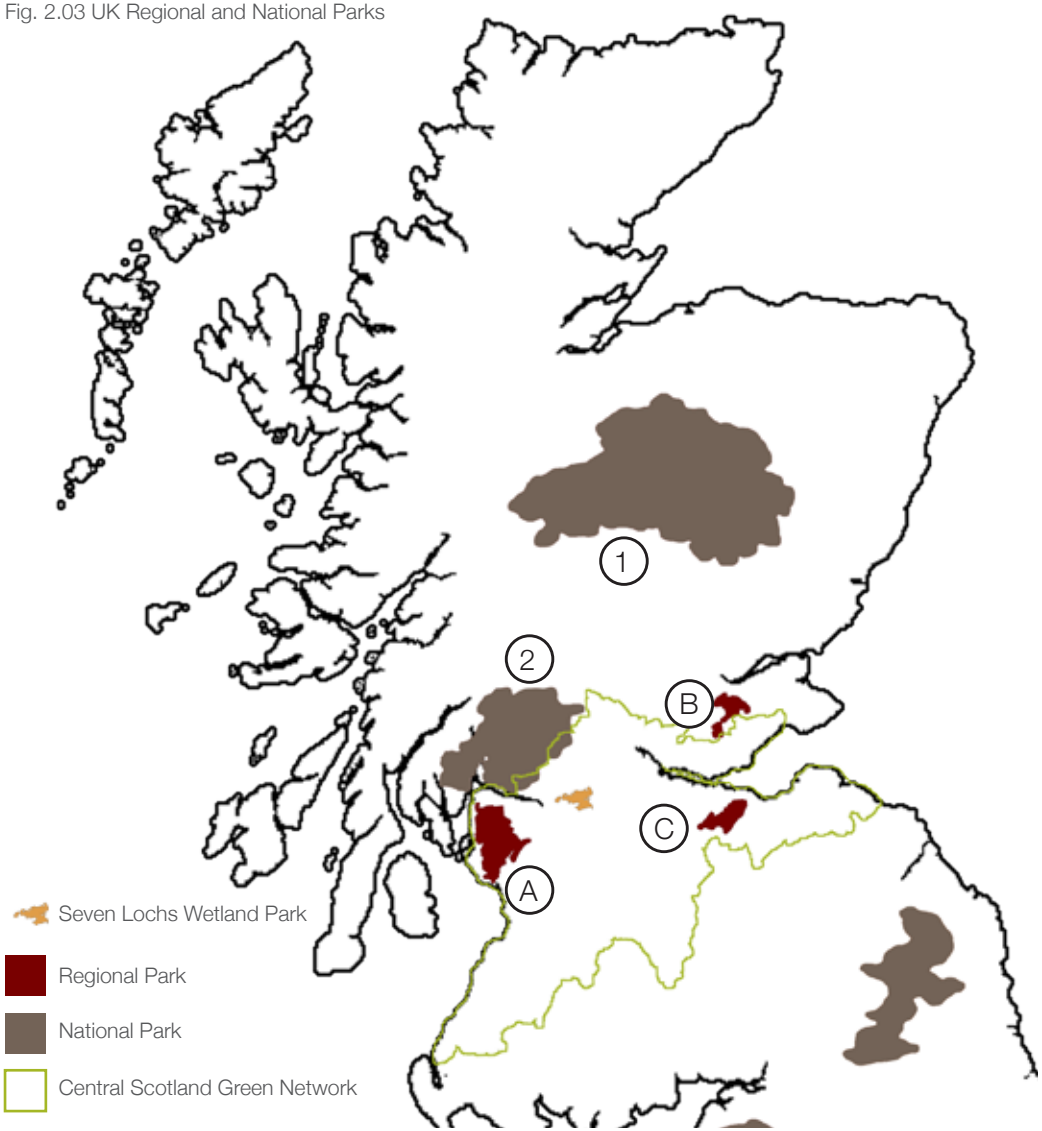


Fig. 3.16 Wider connectivity schematic - significant settlements with direct access to the park boundary via road or rail

Fig. 3.17 The park's position within Scotland's central belt

Fig. 2.03 UK Regional and National Parks



Regional Parks
A. Clyde Muirshiel Regional Park
B. Lomond Hills Regional Park
C. Pentland Hills Regional Park

National Parks
1. Cairngorms National Park
2. Loch Lomond and the Trossachs National Park

Fig. 3.18 Scotland's Regional and National Parks

Location

The site of the proposed Seven Lochs Wetland Park occupies a central and well connected location at an axis of transport corridors in West Central Scotland. The location provides an opportunity for a park of national significance, contributing not only to a strategic Green Network for Glasgow and Clyde Valley, but also to the Central Scotland Green Network which is identified as a national priority in the second National Planning Framework.

Good transport connections enable visitors to easily access the park edge. Motorways running north-south and east-west, link the park to populations across central Scotland, the north of England and further afield. Direct rail links connect the park to Glasgow and settlements west of the city towards Helensburgh, as well as east through Bathgate and Livingston to Edinburgh, and North to Falkirk and Stirling.

The park boundary connects directly to the eastern edge of Glasgow City, allowing opportunities to link with pedestrian and cycle connections to and from the city centre. Established communities surround the park on all sides. There is considerable potential for the park as a visitor attraction to play an important role in the ongoing regeneration of Greater Easterhouse. Of equal importance is the close proximity of Coatbridge to the eastern edge of the proposed park. Clear routes which create enhanced connections across the park and between these communities will help to integrate them into the Seven Lochs Wetland Park.

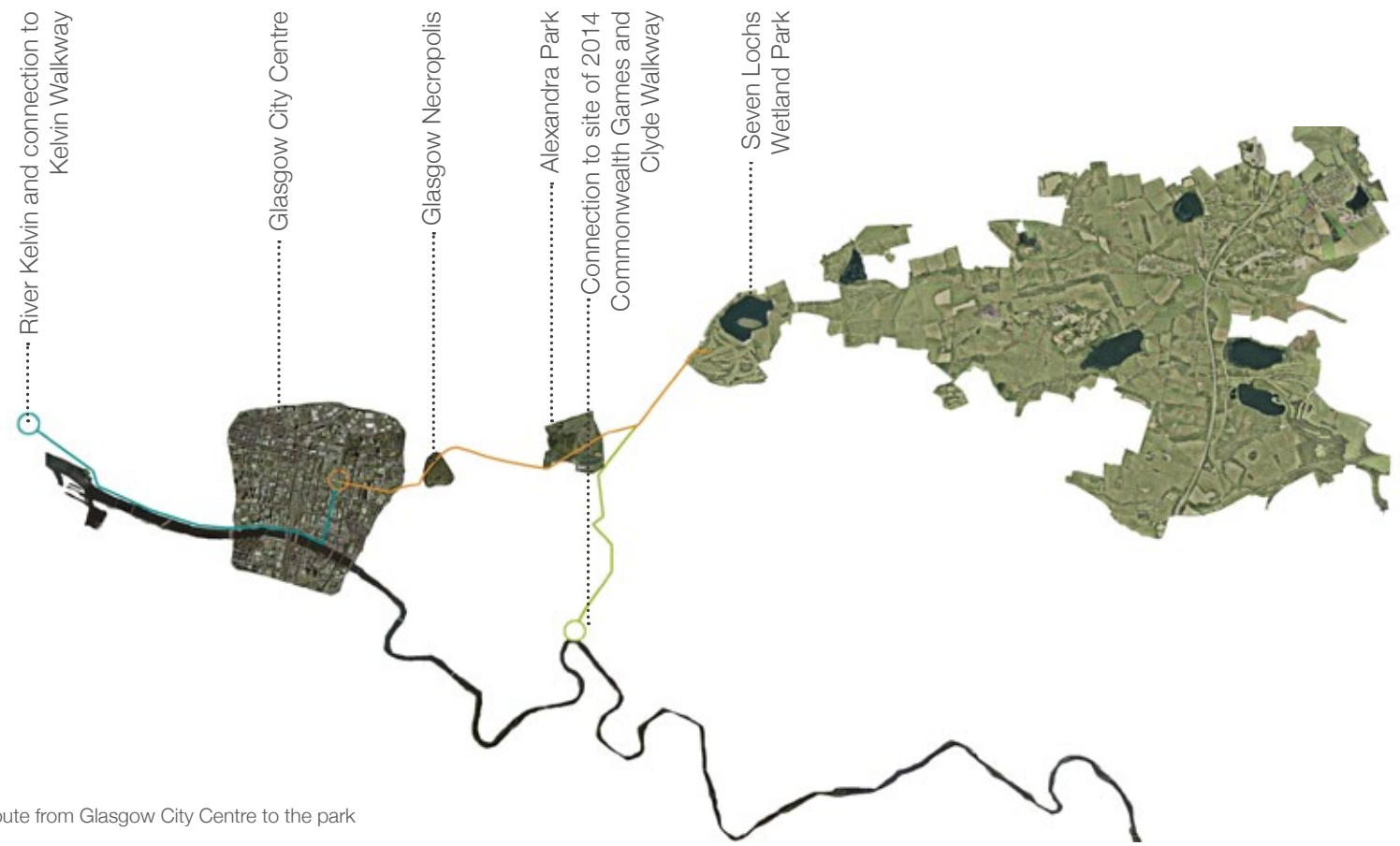


Fig. 3.19 Overall view - proximity and route from Glasgow City Centre to the park

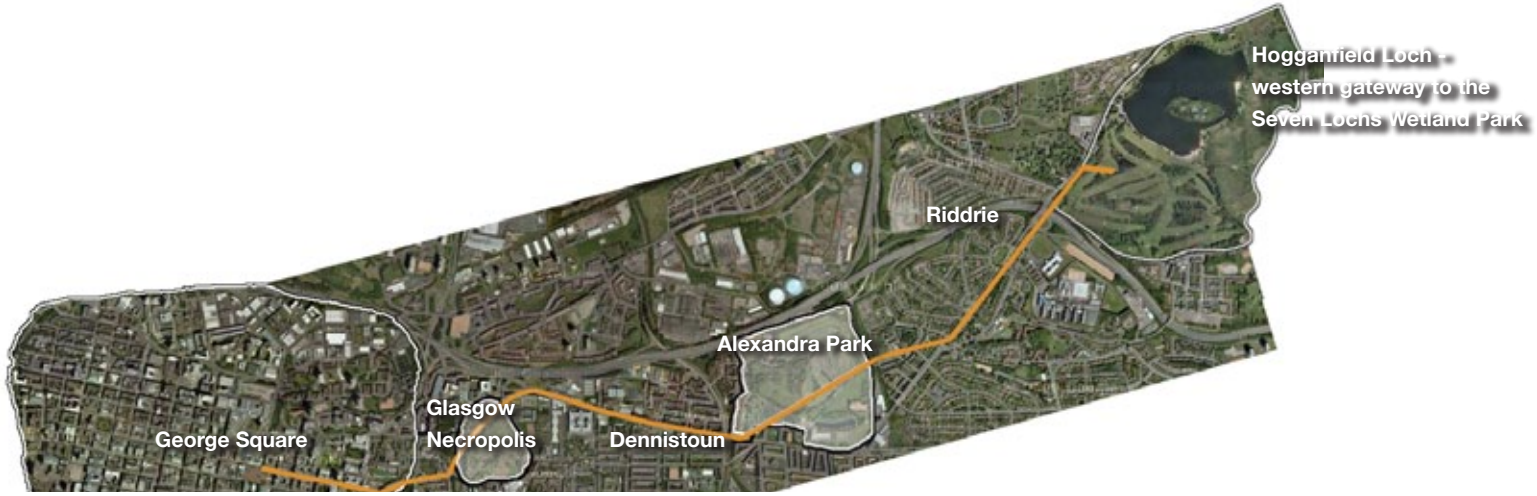
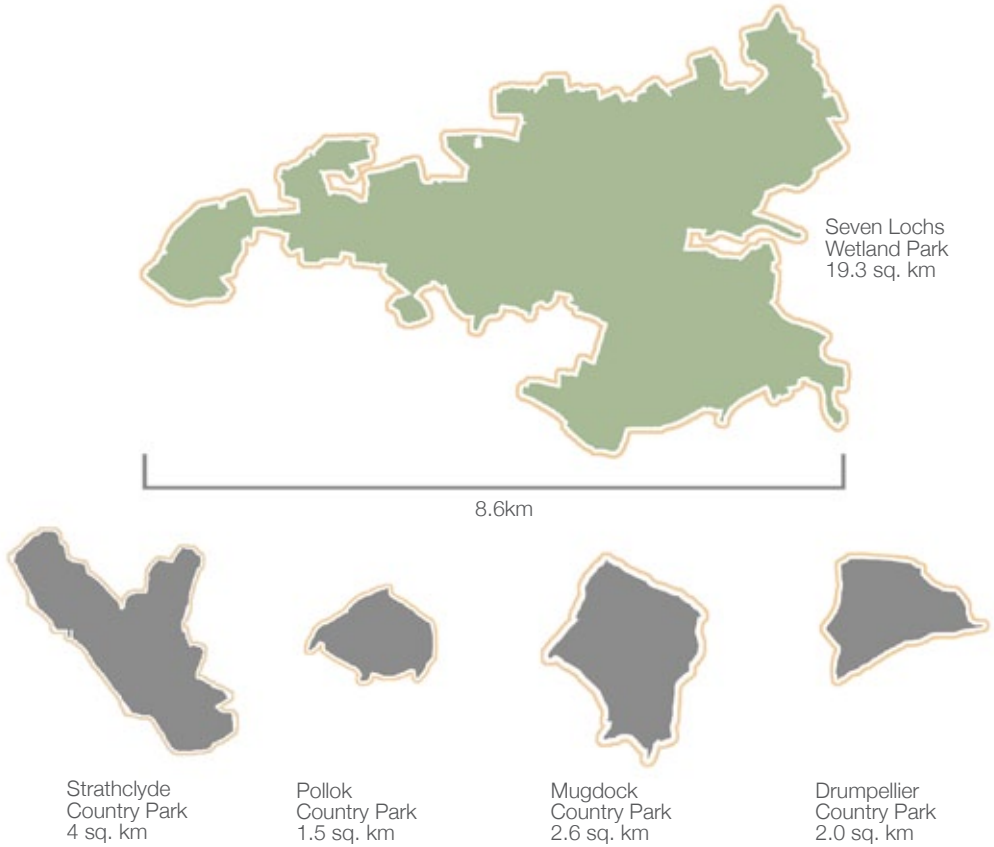


Fig. 3.20 Detail view - proximity and route from Glasgow City Centre to the eastern edge of the park. The route passes through green areas at two city parks and dense residential areas, enabling much of the route to avoid main roads.

Proximity, scale and significance



The Seven Lochs Wetland Park offers an innovative model for a new park, combining habitat protection and enhancement, opportunities for recreation, links to socio-economic regeneration and the integration of high quality new development. Its size and proximity to urban centres ensures it is ideally placed to offer a destination where visitors from urban areas can escape the pressures of urban living, and enjoy activities such as walking and cycling. The park provides an amenity space at a scale that can accommodate a variety of recreational and community use within an area where many people lack access to other greenspaces of a similar scale.

Greater Glasgow is served by large scale parks such as Mugdock Country Park to the North and Pollok Country Park to the south. However, with the exception of Glasgow Green and Alexandra Park, which offer more formal park experiences, the east end of the city has limited green spaces on such a large scale. The park will be of unique significance as the largest designated parkland directly accessible to the city, adding new impetus to the city's reputation for an abundance of publicly accessible green spaces.

The wetland park will also compliment North Lanarkshire Council's portfolio of parks, which includes Strathclyde Country Park, Palacerigg Country Park, Drumpellier Country Park and Dalzell Estate, together with numerous smaller scale town parks throughout the region.

The scale of the Seven Lochs Wetland Park will play a significant part in creating its identity. This must draw upon the area's size, the diversity of recreational opportunities it can offer, its good transport connections and easy accessibility at a regional and local scale.

Fig. 3.21 Scale and Integration - This scale diagram shows the comparative size of the wetland park. The Seven Lochs Wetland park also reaches into surrounding communities unlike other parks in the region

North Lanarkshire Council core paths

Glasgow City Council core paths

Public parks

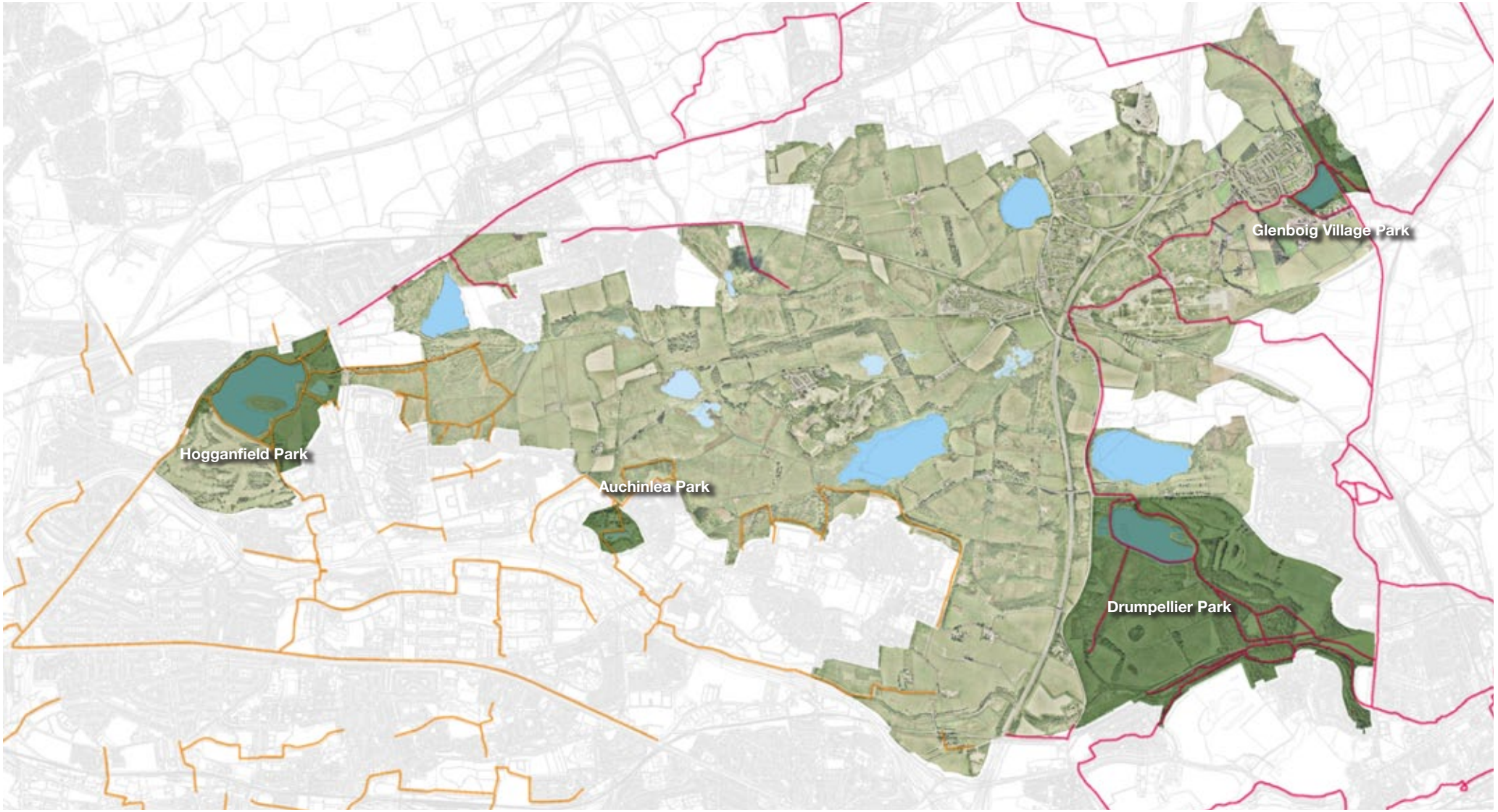


Fig 3.22 Glasgow City Council and North Lanarkshire Council identified core paths

Recreation

Recreation and access provision across the wetland park area ranges from well managed sites in council ownership to informal paths across privately owned land. Lochs, ponds and other wetland areas are key features of many of the formal parks within the proposed wetland park.

Drumpellier Country Park, which attracts around 1 million visits per year, has the most developed recreation facilities. An extensive network of paths for walking and cycling, a large visitor centre and cafe, play areas and angling attract a wide range of users. Walks, family activities and education visits are organised by Rangers based at the Visitor Centre. Low impact water sports ore offered at the visitor centre over the summer months.

Hogganfield Park also has well developed recreational facilities, including boating, angling, golf course, play areas, a beach area and picnic tables. Regular Ranger led activities and events focus on the bird life and other natural features. There is no visitor centre, although the golf course clubhouse does offer limited information, and a mobile food outlet is frequently on site.

Auchinlea Park, which includes Provan Hall, offers more limited recreation opportunities, although there is a large play area, pond and formal gardens. Provan Hall is open on weekdays and some weekends, and for educational visits and tours led by the on-site caretaker. There is also some limited interpretation and a small cafe. The Friends of Provan Hall work with the caretaker, countryside rangers and others to run a range of family activities.

Away from these sites, and smaller parks and amenity spaces in Gartcosh and Glenboig, recreation provision is limited to paths, with some signage and interpretation at local nature reserves. Core Path Plans, identifying paths that are well used and recognised as being important by local communities, have been published by Glasgow City and North Lanarkshire councils. The existing core path networks are limited to the fringes of the Seven Lochs Wetland Park, together with good path networks within Drumpellier Country Park and Hogganfield Park / Cardowan Moss. Connectivity between sites and across the wetland park area is more limited.

Some paths and routes within the wetland park are suitable for cycling and equestrian use, and while there are a number of cycling projects and stables within and around the park area, use of the area for cyclists and horse riders is low. Some paths and routes are promoted as ‘all abilities’, and two ‘phototrail’ routes - which aim to encourage access for all - are within Cardowan Moss.

Recreation is, at present, focussed on a relatively small proportion of the wetland park area, and the full potential of the area to provide a range of outdoor recreation opportunities for a broad audience is currently not being realised.

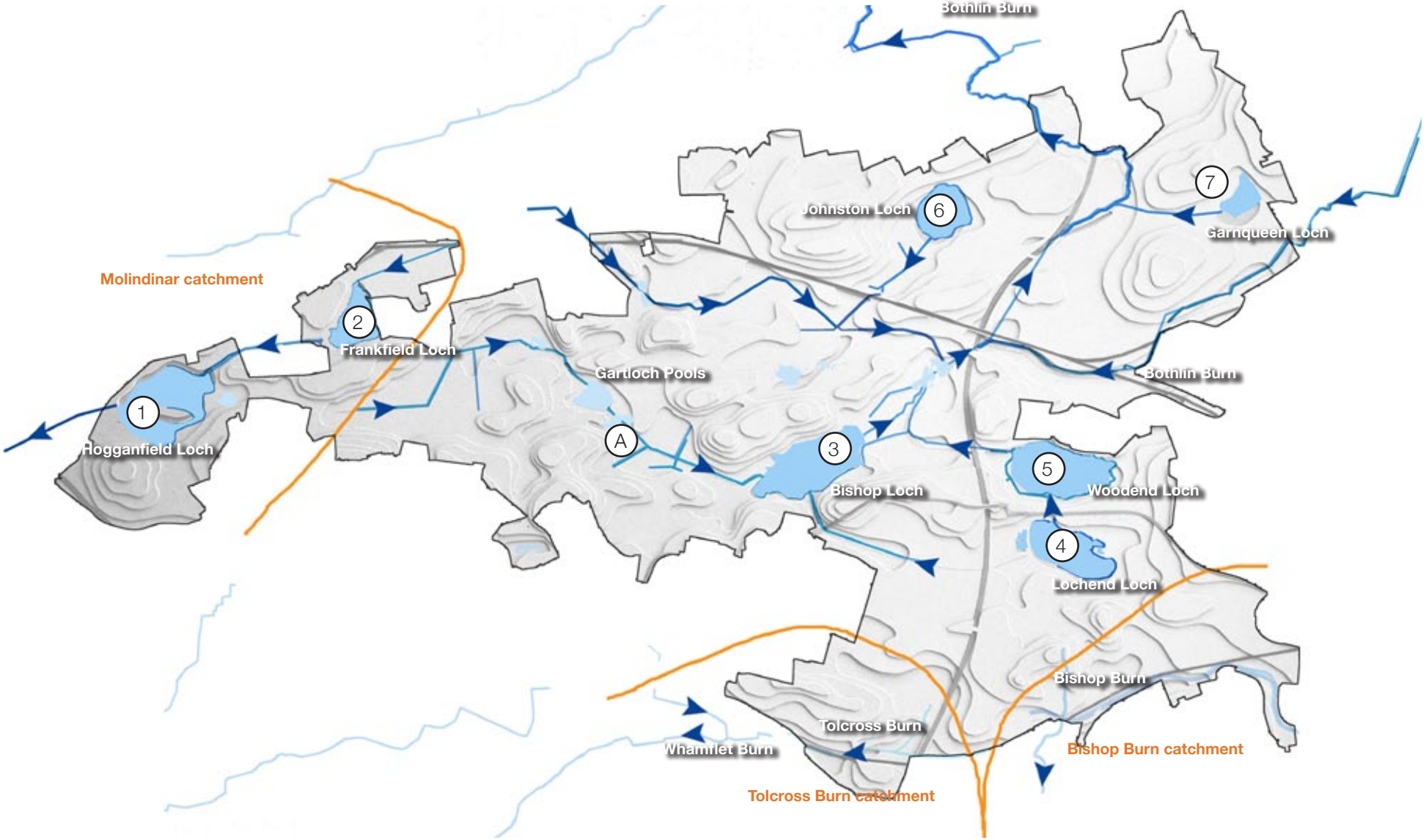


Fig. 3.23 The 7 Lochs and their hydrological flow

Hydrology

The site is generally low lying (below 100m), and water is a dominant feature within the landscape. A complex network of drainage ditches, lochs, wetlands, seasonal water bodies and ponds are associated with a range of wetland habitats, including reedbed, swamp and wet woodland. Large areas of peat are present at Commonhead Moss, Baillie Moss, Cardowan Moss, Heathfield / Garnkirk and Drumpellier. The seven main water bodies are shallow 'kettle ponds' of the Garnkirk chain, formed by glacial retreat after the last ice age.

The area is the headwaters of four catchments, draining into 4 main watercourses which are tributaries of the River Kelvin and the River Clyde. Most of the site, including Bishop Loch, Lochend and Woodend Lochs, Johnston Loch and Garnqueen Loch, drains to the Bothlin Burn which flows N.E. to the River Kelvin. Hogganfield and Frankfield Lochs drain into the Molendinar Burn, which flows west from the site into the Clyde. Smaller areas in the S.E. of the site flow into the Tollcross and Bishop Burns, which flow south to the Clyde.

The lochs vary significantly in terms of their use and modification by human activity. The banks of Hogganfield and Lochend Lochs are extensively modified for recreation / amenity, while other lochs range from the agricultural edges of the Gartloch pools and Bishop Loch, to the natural margins of Woodend Loch. Burns and drainage ditches also vary significantly in character. Watercourses are primarily open, with short culverts beneath major roads, and two longer culverts on the Bothlin Burn (at Gartcosh Business Park) and the Molindinar Burn at Hogganfield Park. While the Bothlin Burn remains open once it leaves the wetland park area the other burns are primarily culverted from where they leave the park to their outflow into the clyde. Some drainage ditches are now blocked, some deliberately, others through natural processes of siltation and vegetation growth.

The seven lochs:

1. Hogganfield Loch
Part of the Hogganfield Park LNR, the loch is a fantastic site for wildfowl and is an accessible, well used amenity. Fed from Frankfield Loch and flows into Molendinar Burn.

2. Frankfield Loch
Fringed with wet woodland, this proposed local nature reserve (LNR) is readily accessible to existing and new communities at Stepps and Cardowan. Flows into Hogganfield Loch.

3. Bishop Loch
A Site of Special Scientific Interest (SSSI), and the largest water body in the City of Glasgow. Fed by watercourses draining wetland area to the east and west the loch, and flows into the Bothlin Burn.

4. Lochend Loch
With access all around the loch this is a well used amenity within Drumpellier Country Park. Water flow from Lochend Loch to Woodend Loch is controlled to support angling.

5. Woodend Loch
Also within Drumpellier Country Park, and a designated SSSI, Woodend Loch retains natural vegetation at its margins. Flows into Bothlin Burn.

6. Johnston Loch
An attractive loch on the edge of Gartcosh, Johnston Loch is accessible on two sides and supports a trout fishery. Drains to the south to join the Bothlin Burn.

7. Garnqueen Loch
Part of Glenbiog Village Park, the loch is an important element of this well used amenity space. Drains west to join the Bothlin Burn.

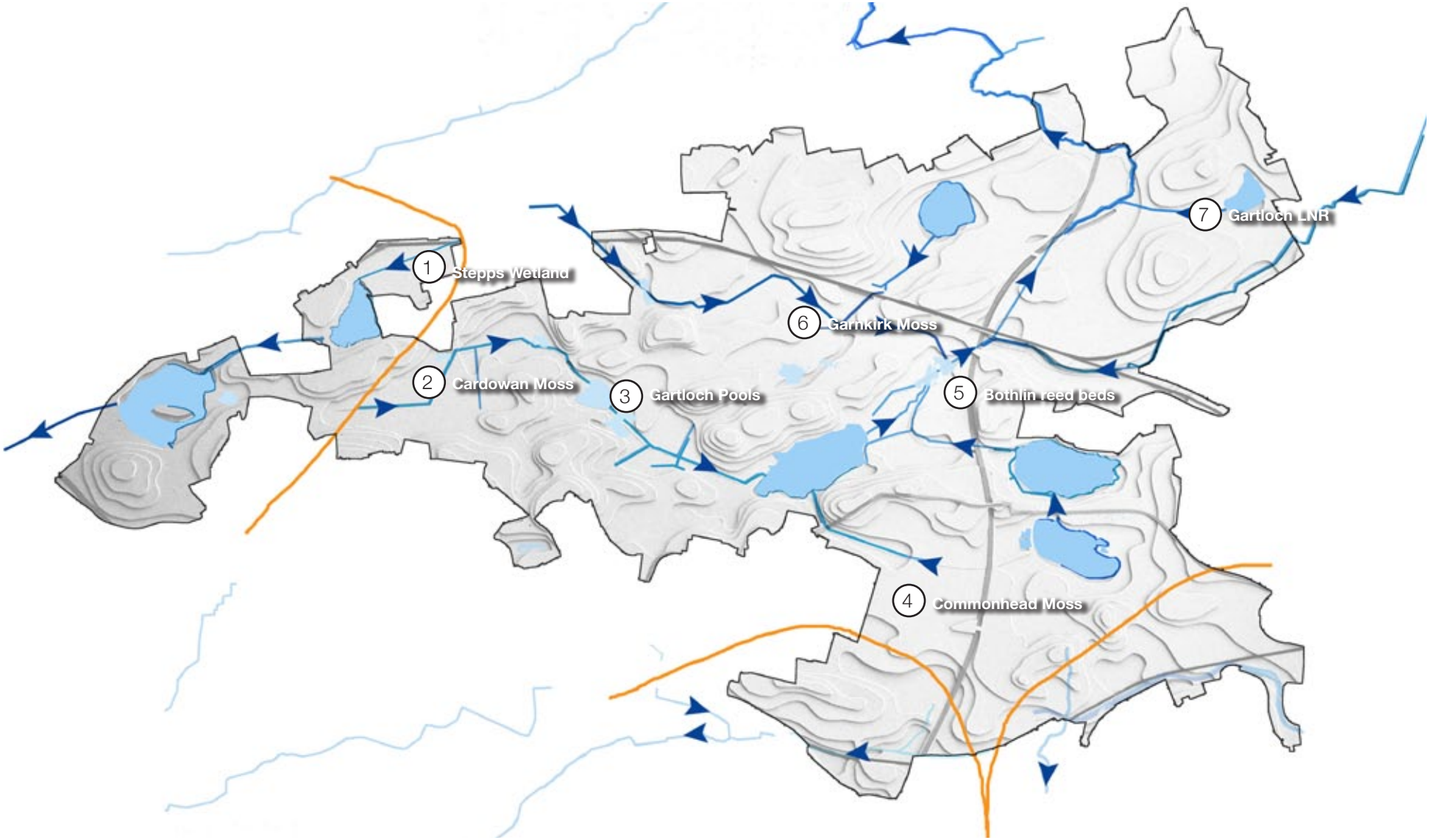


Fig. 3.24 Wetland features

Hydrology

While most of the area drains naturally there is a pumping station on the Molindinar Burn between Frankfield Loch and Hogganfield Loch which regulates water levels in the burn and in Frankfield Loch. It also appears that recent development at Frankfield Loch has resulted in water being artificially diverted from the inflow to the loch into the Garnkirk Burn. A sluice between Lochend and Woodend Lochs regulates the water level in Lochend Loch, primarily for recreational angling.

As the site includes the headwaters of the burns, water quality within the site will affect water quality along the length of the watercourses. While water quality within the park is generally good, monitoring downstream of the wetland park indicates that all the burns draining the site do not currently achieve good ecological status as defined by the Water Framework Directive. Site condition monitoring at the Sites of Special Scientific Interest at Bishop Loch and Woodend Loch has identified enrichment from agricultural run-off as an issue.

Wetland features:

1. Stepps wetland
This area of wet woodland, pools and drainage ditches is good amphibian and water vole habitat. It will become part of the Frankfield Loch LNR.

2. Cardowan moss
An area of remnant raised bog habitat on the edge of the Cardowan Moss woodland, this site requires active management to prevent it from drying out.

3. Gartloch pools
This important wetland area between Cardowan Moss and Bishop Loch includes recently formed pools, reed bed and marsh. It has the potential to become an extension to existing LNRs as part of a planning agreement with developers.

4. Commonhead moss
The largest area of raised bog in Glasgow City, this LNR is actively managed to maintain a mix of open bog, wet heath and woodland. It is a great site for dragonflies and damselflies.

5. Bothlin reed beds
Fed from Bishop Loch, Woodend Loch and Johnston Loch this is one of the largest areas of freshwater reed bed in central Scotland. It is a great place for wetland birds including water rail, reed bunting and sedge warbler.

6. Garnkirk Moss
A large area of bog, wet grassland and wet woodland on the Glasgow City / North Lanarkshire council boundary. There is clear evidence of extensive historic peat extraction.

7. Gartloch LNR
This new LNR, which is a mix of ponds, grassland and woodland, was created to provide suitable habitat for great crested newt relocated from the adjacent business park.

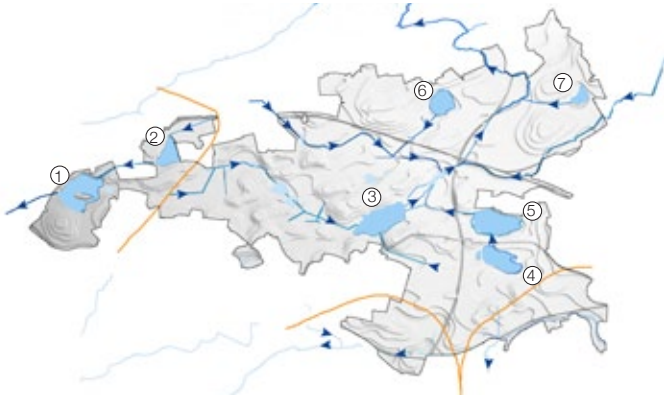


Fig.3.25 - 1 Hogganfield Loch

Fig. 3.26 - 2 Frankfield Loch

Fig. 3.27 - A- Gartloch Pools

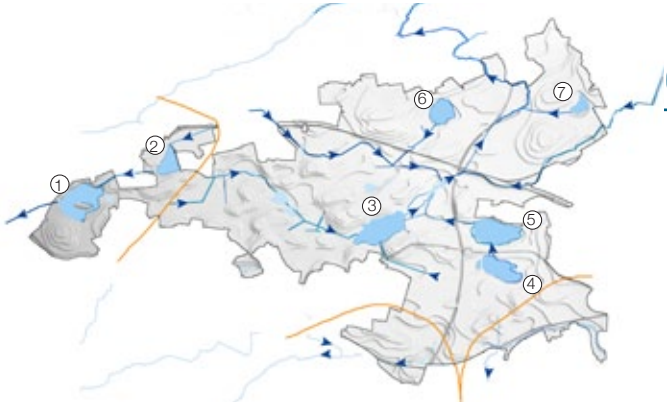


Fig. 3.28 - 3 Bishop Loch

Fig. 3.29 - 4 & 5 Lochend Loch and Woodend Loch

Fig. 3.30 - 6 Johnston Loch (courtesy Bing Maps)

Fig. 3.31 -7 Garnqueen Loch (courtesy Bing Maps)

Fig. 3.32
Gartloch
Distillery

Fig. 3.33
Lochend
Road

Fig. 3.34
Lochend
Road

Fig. 3.35
Gartcosh
Steelworks

Fig. 3.36
Gartcosh
Steelworks

Fig. 3.37
Gartcosh
Steelworks

Fig. 3.38
Gartcosh
Steelworks

Fig. 3.39
Gartcosh
Steelworks

Fig. 3.40
Coatbridge

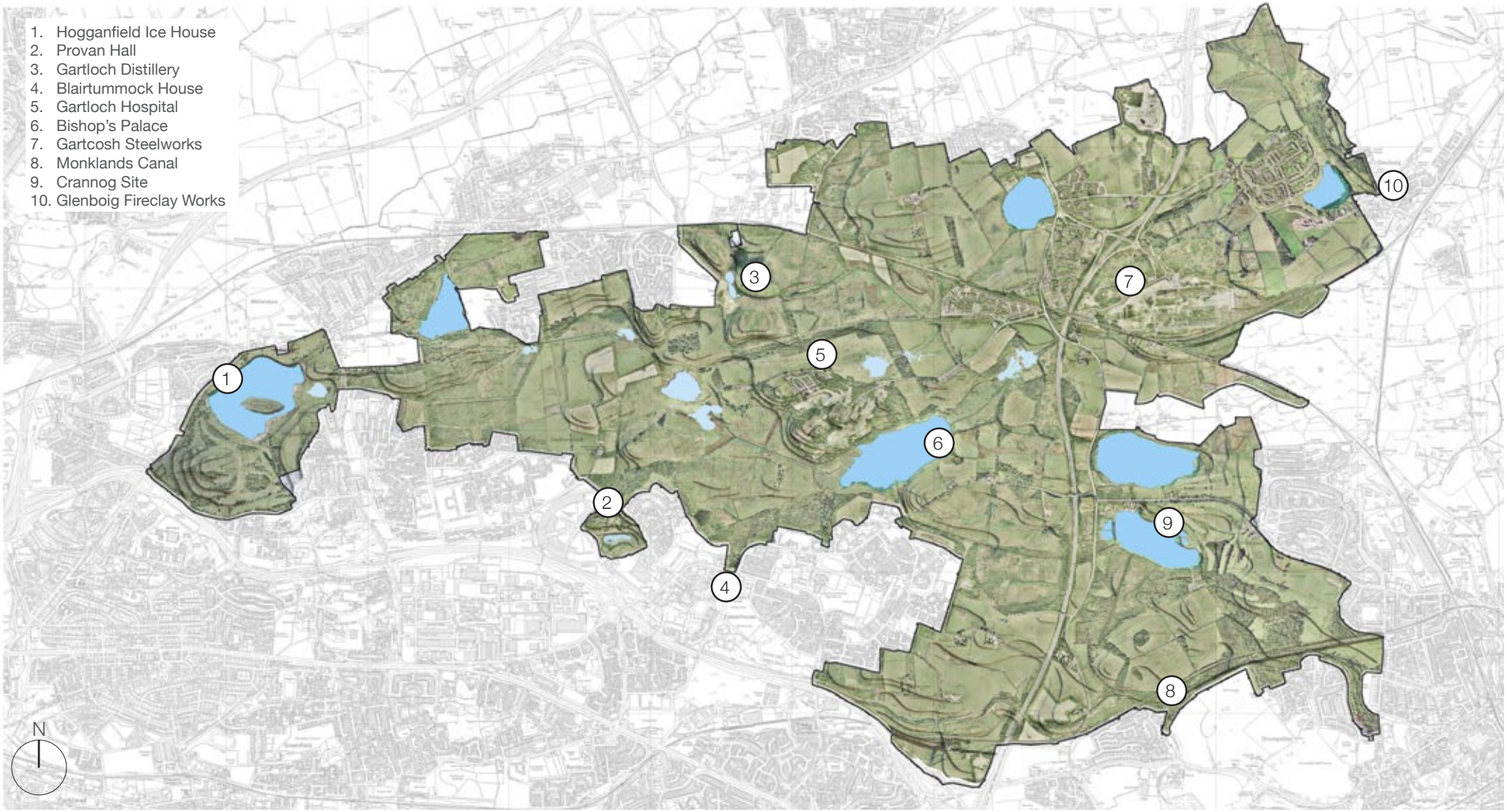


Fig. 3.50 Historical points of interest


Fig. 3.41
Blairtummock House


Fig. 3.42
Gartloch Road


Fig. 3.43
Gartloch Hospital


Fig. 3.44
Gartloch Hospital


Fig. 3.45
Gartloch Hospital


Fig. 3.46
Crannog Excavation


Fig. 3.47
Monkland Canal


Fig. 3.48
Monkland Canal


Fig. 3.49
Monkland Canal

History

The area has a long and varied history. The intrinsic character of the site and the variety of its wetlands, date back to the last ice age, when drifting and melting glaciers formed the network of kettle ponds, referred to as the Garnkirk chain. Human settlement was historically present only on areas of higher ground which provided defensible land. An exception to this is very early human settlement at Lochend Loch and Bishop Loch, where the remains of Iron Age crannog dwellings have been discovered. Excavated in 1905, finds from the Bishop Loch crannog indicate the area was used between 250 BC and 40 AD.

The site of Drumpellier Estate was occupied by monks in the 12th century, later giving their name to the Monklands area. In the medieval period the wetlands were prime hunting grounds, and by the 14th / 15th Century were known as the 'Bishop's Hunting grounds', with the Bishop's palace located at the edge of Bishop Loch. The combination of agricultural land, woodland and valuable hunting meant that Provan Hall, within Auchinlea Park and now one of the most important historical buildings in Glasgow, became the centre of a valuable estate under the Bishop's control. Drumpellier Country Park is a remnant of the original hunting grounds, which subsequently passed into private ownership after the Reformation.

Following the industrial revolution, the site developed a strong industrial character, particularly related to coal and fireclay mining. Former industrial features on the site of the park included the Gartloch Distillery, the Glenboig Fireclay works and the Gartcosh Steelworks. The fireclay and steel works have since been demolished, whilst remnants of the distillery remain on the site. These industrial activities have left ruins and scars on the site of the park. The area around Coatbridge to the eastern edge of the site was also a dense area of heavy industry. Other local industrial uses of the site included a bleach works, and ice extraction at Hogganfield Loch.

The Scottish Museum of industrial life at Summerlee is testament to the rich industrial heritage of the area. A replica of the Vulcan boat of 1819, the first steel hulled boat to be built in Scotland, demonstrates the variety of industrial application in the area, where resources were not only mined and distributed but also utilised for manufacture. Ironworks were so prevalent in the area that it became known as the 'Iron Burgh'. The mining industry was the most prominent source of employment in the area. In 1910 there were 16 collieries within the New Monklands parish area and within the Burgh of Airdrie some 48% of houses were occupied by miners. The northern region of the proposed park area is thought to be most likely to harbour shallow mine workings from this era. Deeper mine workings have not been disturbed since the last known mining of the area in 1931 and are not thought to pose a risk to further development with the likelihood that any potential settlement will have occurred before now.

Re-use of sites

There are ten buildings on the site with A or B listed status. A number of historic buildings and post industrial sites have found new uses including:

Provan Hall historic buildings (site and building):
now a visitor centre
Blairtummock House (site and building):
now conference facilities
Gartloch Hospital (site and building):
now residential use
Gartloch Steelworks (site only):
proposed Gartcosh Business Interchange


Fig. 3.51 Provan Hall


Fig. 3.52 Glenboig Fireclay Works


Fig. 3.53 Monkland Canal

Fig. 3.54 Historical map 1583 - 1611

Fig. 3.55 Historical map 1654

Fig. 3.56 Historical map 1832

History

The Monklands Canal was an important element of the industrial network on the site. The canal was the artery supplying coal to Glasgow from the mining areas to the east. It also was involved in passenger transport to a lesser degree. In order to transport materials to the canal side prior to the introduction of the railway, a series of waggonways were introduced. The Legbrannock Waggonway was built in 1800 to transport coal from the Legbrannock colliery to the Monkland Canal. An extensive rail network (mineral lines) was subsequently developed in the area, including the Monkland to Kirkintilloch and Glasgow to Garnkirk railways, which opened in 1826. The route to Kirkintilloch allowed goods to be transported onto the Forth and Clyde canal for onward travel. The line was used mainly to transport coal to Glasgow. The railway was built to oppose the monopoly of the canal transport services which were expensive and slow. Both were used to mainly transport coal and iron ore although passengers were also transported.

Railways in the area were also used for passenger transport with trains calling at Coatbridge, Gartsherrie, Gartcosh, Garnkirk Works and Stepps between Airdrie and Townhead, Glasgow. The journey times for passenger transportation were greatly improved by rail in contrast to the previous canal journey in the region of two and a half hours. The historical railway lines have been gradually adapted, closed or subsumed into others but many of the station names still exist as part of lines between Glasgow and Edinburgh at both the north and south of the site.

A short open stretch of the canal forms the park boundary between Coatbridge and Bargeddie, although the canal is no longer navigable having being culverted following its closure in the 1950s. The route of the canal later provided a route into Glasgow for the M8 motorway. Tree lines and vegetation still mark the route of the canal in some areas of the proposed park, and the canal's watercourse is still visible to the southern edge of the park, where it provides a connection through to Coatbridge.

The rich variety of history on the site offers a potential for visitor interaction and education, with historical trails connecting sites, and emphasis placed on key historical features to help define the identity of the park.


GARNKIRK & GLASGOW
RAILWAY.

SUMMER HOURS,
From 4th APRIL to 3d OCTOBER.

THE PASSENGER TRAINS leave the DEPOT, TOWNHEAD, GLASGOW, and LEADEND DEPOT, AIRDRIE, as follows:—

FROM GLASGOW:	FROM AIRDRIE:
Quarter-past Seven, morn.	Half-past Eight, morning,
Quarter-past Ten, do.	Half-past Eleven, do.
Quarter-past One, aftern.	Half-past Two, afternoon,
Five o'clock, do.	Half-past Six, do.

INTERMEDIATE STATIONS.

Fig. 3.57 Garnkirk & Glasgow railway timetable

Fig. 3.58 Garnkirk & Glasgow railway opening

Fig. 3.59 The Vulcan boat

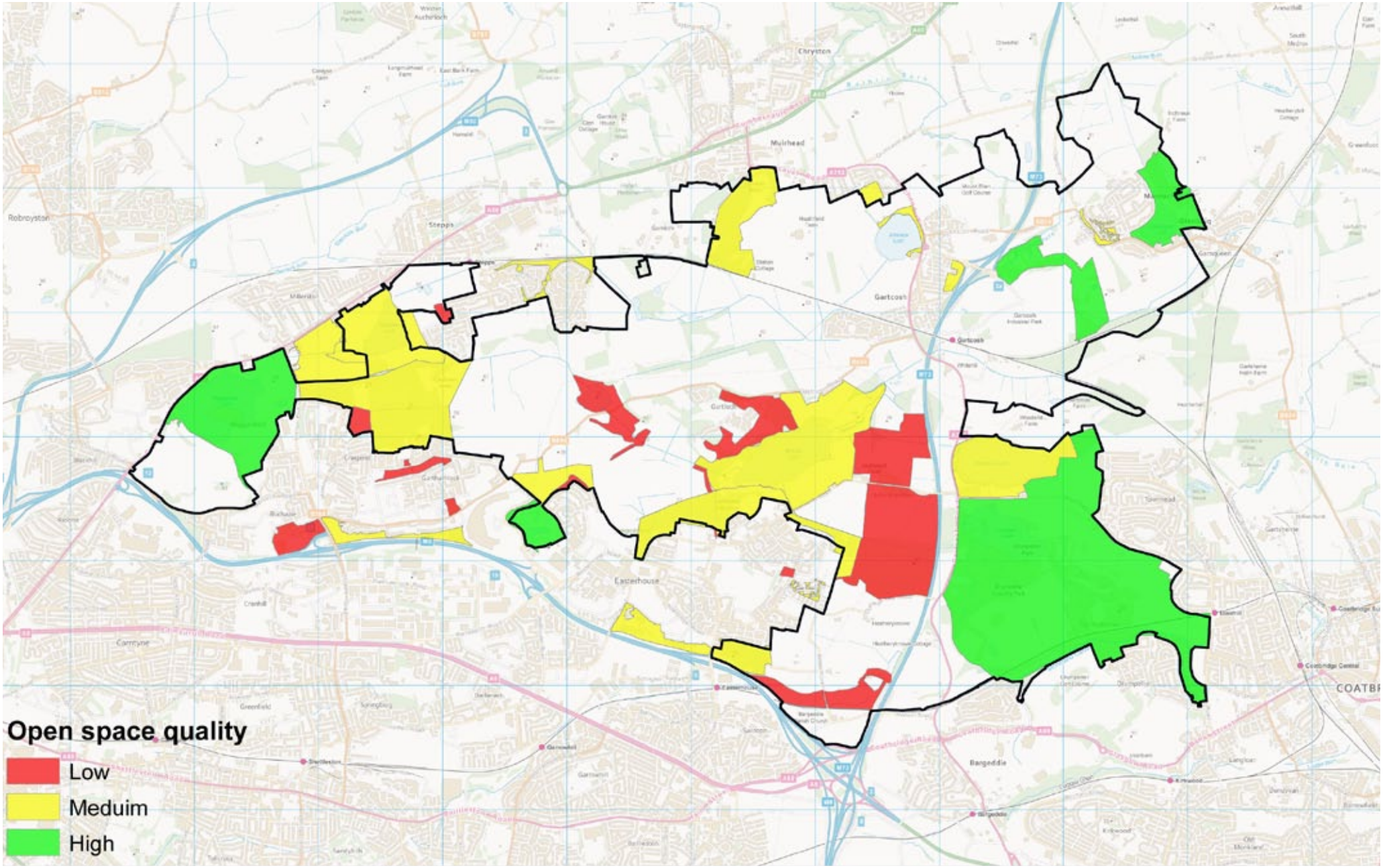
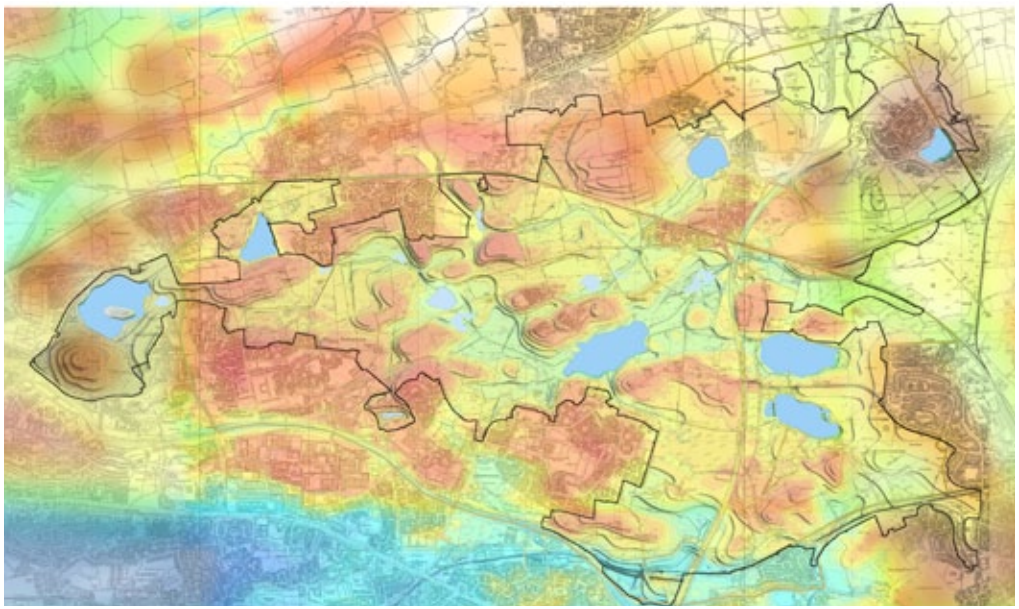


Fig. 3.60 Open Space Quality data



Land use and landscape character

The Seven Lochs Wetland Park is generally composed of open water and wetland, interspersed with a number of small drumlins and ridges. These offer good views across the low lying lochs and wetlands. A small number of working farms remain. Productive areas are primarily used for grazing cattle and horses, with a very small amount of cereal crop. Significant areas of previously agricultural land are now abandoned, creating large areas of open semi-natural land.

The area also contains designated parkland, with important public parks and associated recreational facilities at Drumpellier Country Park, Auchinlea Park and Hogganfield Park. There are also significant areas of mature woodland and tree lines which provide enclosure and identity, while areas of recently planted woodland help to screen urban areas, and will enhance the character of the area as they mature. An audit of larger open spaces within and around the wetland park included an assessment of their quality for recreation / amenity. This shows that while there are some high quality parks in the area, there are also significant areas of poor quality greenspace.

The area is classified as 'fragmented farmland' in the Glasgow and Clyde Valley Landscape Assessment (1998). This assessment identifies fragmentation and loss of character, encroaching development and the loss of visual separation between settlements, and the deterioration and loss of hedgerows and tree cover as key issues. It also highlights the importance of the area in providing a gateway to the Glasgow conurbation from the east and the need to balance reclamation, enhancement and conservation of important features. Restoration and expansion of woodland and hedgerow will help create intimacy and enclosure, although key panoramas from ridges around the edge of the site should be retained. The perimeter of the site is influenced by the surrounding transport infrastructure, which has a detrimental effect on the quality of land at the fringes, particularly where hedgerows, fences and tree lines have been diminished. There is an opportunity to improve landscape character by strengthening existing farmland and by continuing the enhancement of degraded and abandoned land.

Fig. 3.61 Topography across the site - blue indicates lowest areas (40m above sea level) and red indicates highest areas (100m above sea level)

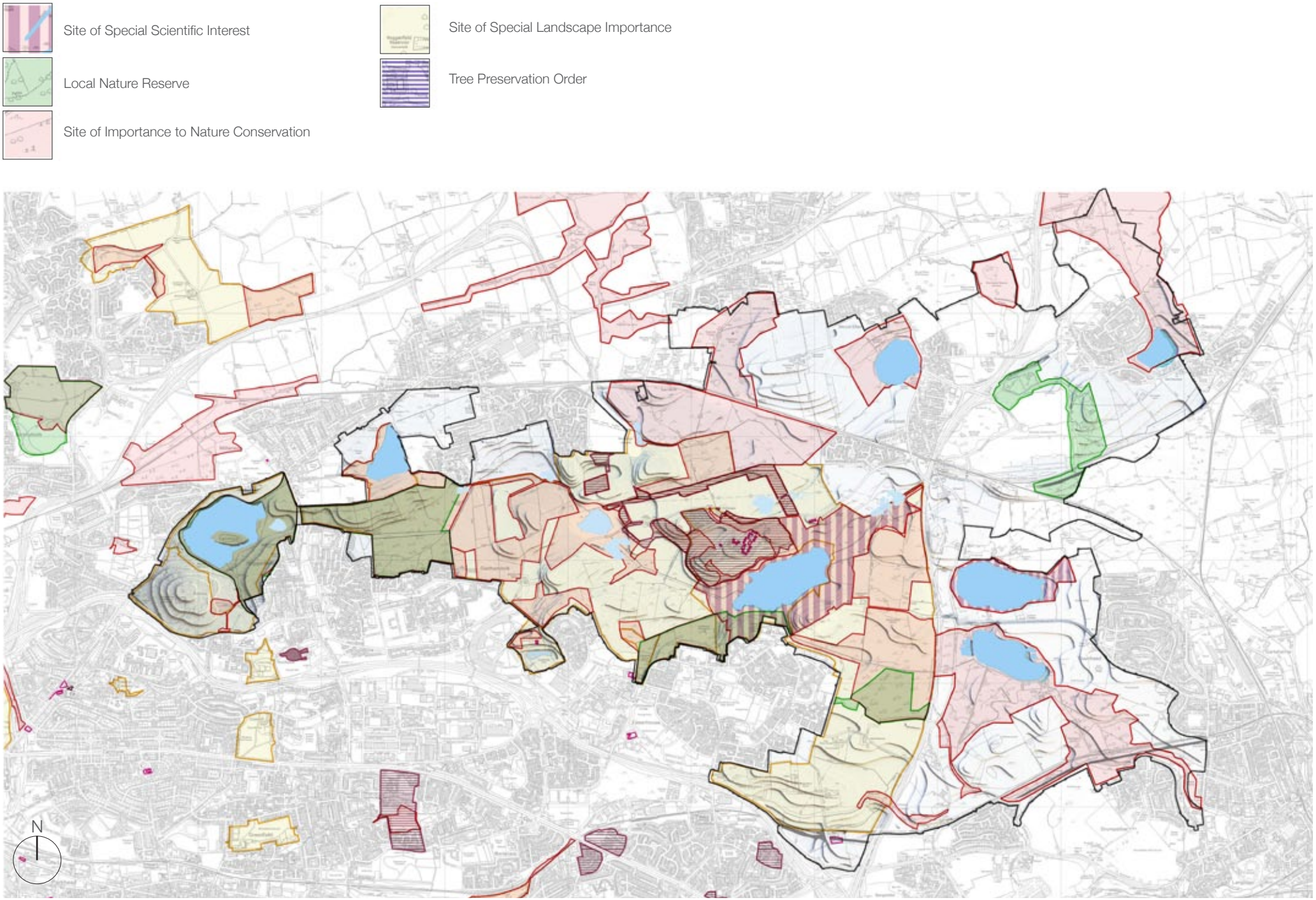


Fig. 3.62 Habitat areas


Fig. 3.63 Water Vole


Fig. 3.64 Water Rail


Fig. 3.65 Great Crested Newt


Fig. 3.66 Meadow Brown


Fig. 3.67 Roe Deer


Fig. 3.68 Reed Bunting

Habitats and species

A diverse range of wetland, woodland and grassland habitats are already found on the site of the proposed Seven Lochs Wetland Park. These could be enhanced and expanded with careful habitat management and the creation of additional habitat areas to link existing habitats and wildlife corridors together.

Important habitats include reed beds, marshy grassland and associated ditches, with the area around Bishop Loch identified as one of the largest reed beds in Scotland. This area provides important habitats for both national and local biodiversity action plan priority species, including Reed Bunting, Grasshopper Warbler, Water Vole and Otter, and suitable habitat for nesting birds such as Water Rail and Sedge Warbler. There are also significant areas of remnant raised bog. Commonhead Moss is a large area of raised bog which is rich in species including Bog Rosemary and many different types of dragonfly and damselfly. Areas of mature woodland provide habitat for British Bluebell, a wide range of woodland birds, and resident populations of Badger and Roe Deer. The lochs provide important wintering habitat for a wide range of wildfowl, including Graylag Geese and Whooper Swan, and for Osprey as they pass through on migration.

The Sites of Special Scientific Interest (SSSI) at Bishop Loch and Woodend Loch are designated as base-rich lochs, and Bishop Loch for its open water transition fen. However, both SSSIs are in unfavourable condition due to nutrient enrichment from surrounding farmland. There are Local Nature Reserves (LNRs) at Hogganfield Loch, Bishop Loch, Cardowan Moss, Commonhead Moss and Gartcosh. The Gartcosh LNR provides habitat for Scotland's largest population of Great Crested Newt, in internationally protected species. There are also extensive Sites of Importance for Nature Conservation.

For further information regarding habitats and species, please refer to the appendices within chapter 9, which include the Ecology and Landscape reports completed by AECOM.

Wetland habitat

Native grassland habitat

Woodland habitat

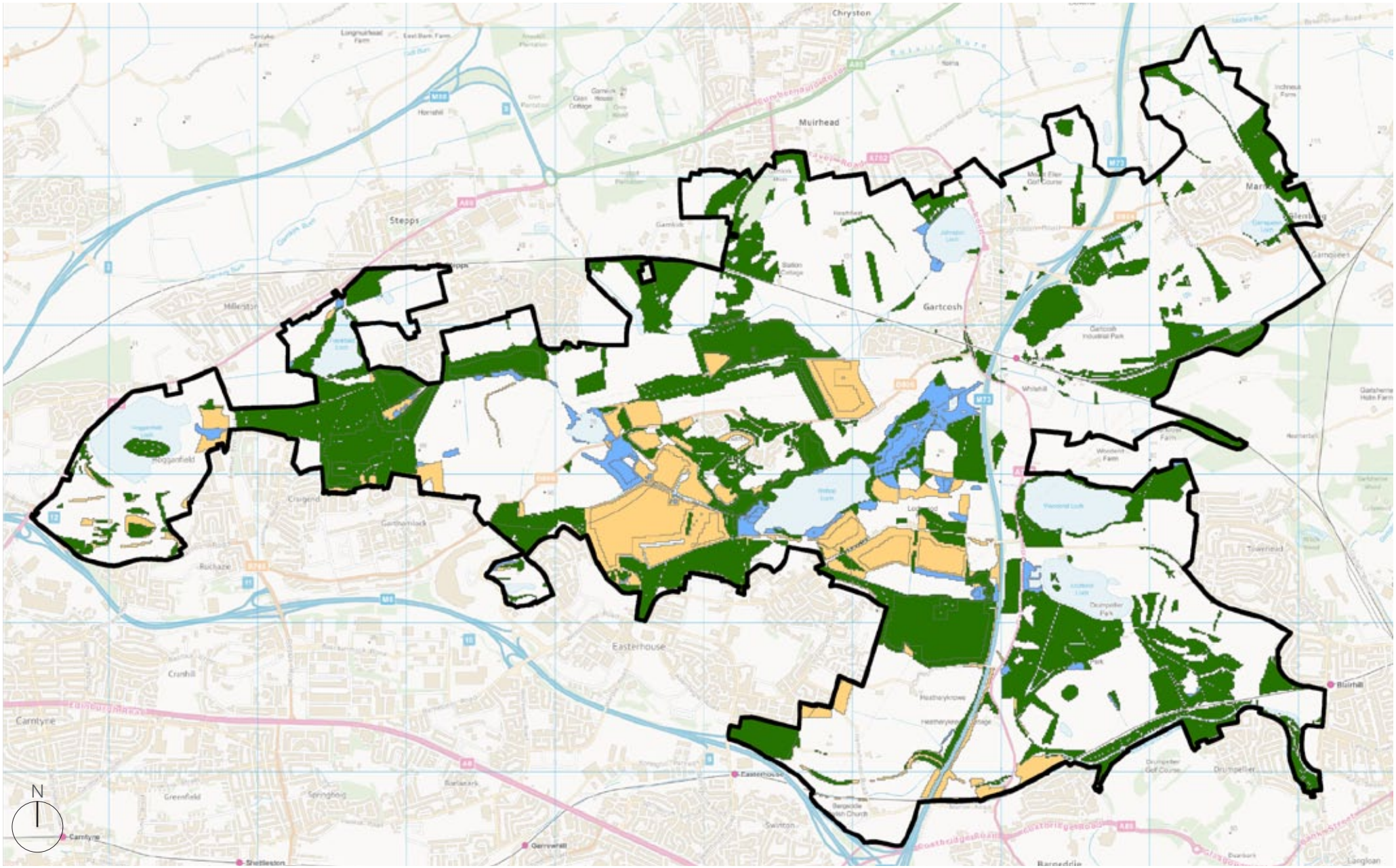
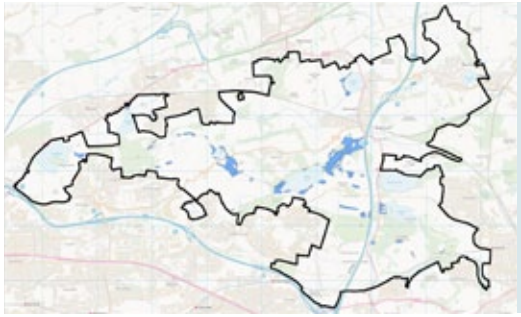


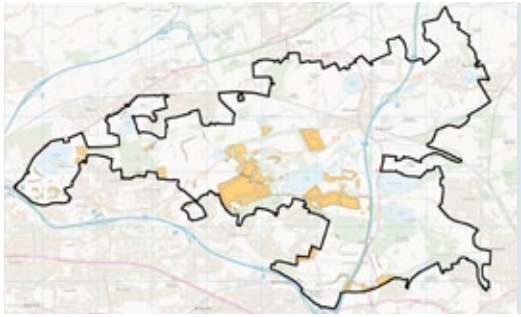
Fig. 3.69 Ecological networks



Wetland

Important elements of the wetland network are the Gartloch Pools, the reed beds around Bishop Loch and areas of raised bog and wet woodland. Expansion of these can be achieved through careful and appropriate habitat creation, including:
- creation of wader scrapes
- reversing previous drainage works
- naturalised SUDS linked to new development

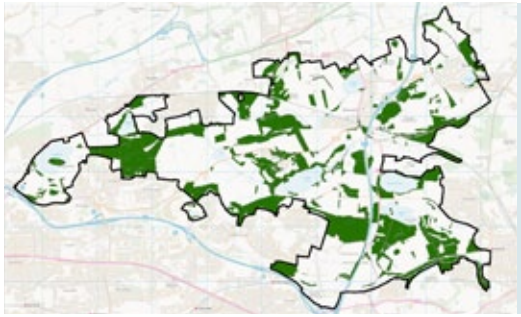
Fig. 3.70 Wetland



Native grassland

Key areas include active agricultural land at Blackfaulds and Lochend Farms, and abandoned farmland at Garnkirk Moss and Bailie Moss. Enhancement and expansion of these networks could include:
- meadow management and conservation grazing
- restoration of hedgerows and field margins
- meadow creation linked to development
- note: no neutral grassland data available for NLC

Fig. 3.71 Native grassland



Woodland

Significant areas of mature woodland are those around Gartloch Hospital and within Drumpellier Country Park. There are also extensive new woodlands, with potential to enhance woodland networks as they mature. There is scope to enhance woodland by:
- successional planting
- removal of invasive non-natives
- new native planting in areas of former industrial activity

Fig. 3.72 Woodland

Habitat and species

The conservation and enhancement of habitats is of paramount importance to the success of the proposed wetland park. Wetland, woodland and grassland habitat networks have been mapped using the Integrated Habitat Network Model, and these maps are the baseline from which habitat networks will be expanded and enhanced.

There is a strong wetland network - with a good mix of open water, marsh, reed bed, wet grassland and wet woodland - running through the middle of the site from Cardowan Moss to Gartcosh, and linking lochs and wetlands along the Bothlin catchment. This forms the wetland core of the site. Grassland networks are limited, but there are a number of large sites that could form the core of a wider network. Although extensive, woodland networks are fragmented by roads and railways.

Habitat networks in the area are already fragmented, and the main threat to habitats and species is further fragmentation. Scottish Natural Heritage has recently identified the area as a Priority Enhancement Area for wetland, woodland and grassland habitats. The strategy for the wetland park is to protect and enhance existing habitat networks, and to develop more connected networks both within the park, and into surrounding areas.

Realising opportunities for habitat enhancement and improved habitat connectivity will require partnership working across the two council areas, and with landowners and land managers. In areas designated for community growth there is an opportunity to work with planners, landscape architects and others to identify where integrated green infrastructure can help ensure connectivity of habitats through new developments.

04 Opportunities and constraints

Informing the approach

12 Green Network Spatial priorities - no.12 Greater Easterhouse

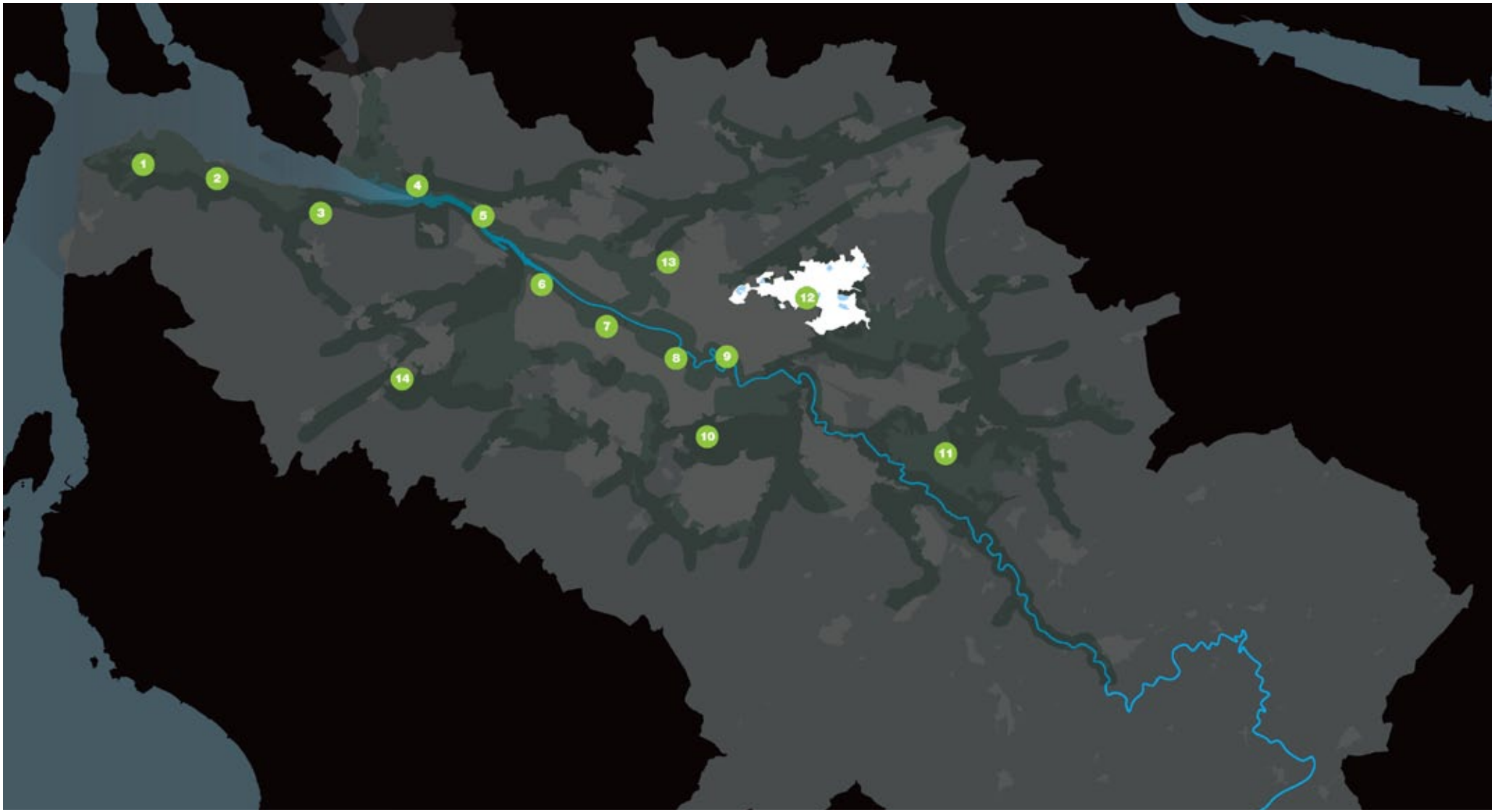


Fig. 4.01 Green Network Spatial Priorities

Planning context

The Glasgow and Clyde Valley Strategic Development Plan (2012) identifies a regional Green Network as a fundamental component of the Spatial Development Strategy, and as a key part of the Central Scotland Green Network as set out in Scotland's National Planning Framework 2. The vision for the Glasgow and Clyde Valley Green Network is broad, but an important element is to provide a strong environmental setting for the city-region's built up areas and enhance connectivity between the built environment and surrounding countryside.

The Glasgow and Clyde Valley SDP identifies the Gartloch Gartcosh area as a Green Network spatial priority. Existing high quality habitat, opportunities to enhance access improve open space, and on-going social and economic regeneration combine to create an opportunity to demonstrate how to integrate development with expansion of the Green Network.

Local Development Plans in Glasgow City and North Lanarkshire set out a more detailed spatial framework for the area. The North Lanarkshire Local Development Plan (2012) identifies a significant number of areas for protecting and promoting the natural and built environment around Gartcosh, Glenboig and Coatbridge, The plan also identifies Community Growth Areas (CGAs) around Gartcosh and Glenboig as locations for medium-term housing development to deal with the anticipated shortfall in available housing. The plan also sets out areas for new industrial and business development, with the development of a new business park at Gartcosh a key priority.

Similarly, the Glasgow City Council's City Plan 2 (2009) recognises the natural heritage and recreational importance of the area through Local Nature Reserve other landscape and heritage designations. The draft Main Issues Report sets out development and regeneration priorities for the City from 2014 - 2019. It identifies a number of Community Growth Areas (CGAs) and other major housing sites within and around the wetland park. Some of these are linked to the proposed Easterhouse Regeneration Route (ERR), which cuts through the wetland park area, and the upgrade of Gartloch Road. Major re-development of existing housing to create a new neighbourhood at Garthamlock, and further development at The Fort shopping centre are other key proposals.

Minimising the impact of planned development is crucial to the success of the wetland park. The proposed CGAs and other developments are included within the proposed wetland park to help ensure that development is to a high standard, and is integrated into the surrounding wetland environment. CGAs in both North Lanarkshire and Glasgow will be the subject of a masterplanning exercise to determine the scale and nature of the development, infrastructure requirements and integration with the surrounding countryside. North Lanarkshire Council has prepared a Gartcosh:Glenboig Community Growth Area Concept Statement (2010) to set out a vision and guiding principles for development of these sites. There is an opportunity for the site masterplans to be influenced by the aspirations of the wetland park and provide opportunities for improving access into, and awareness of the wetland park.

In addition, there are equally significant opportunities to ensure that development and regeneration on the edges of existing communities such as Easterhouse and Garthamlock, where they border the proposed wetland park, carefully respond to the park and provide strong links into the park. This will help ensure that the park does not have a 'hard edge', but links with existing green and open spaces through green corridors, access links and habitat networks.

The proposed Easterhouse Regeneration Route (ERR), which cuts through the proposed park, linking Stepps with Easterhouse, presents a considerable challenge. The route will need to be carefully chosen to minimise habitat fragmentation, and careful planning and design is required in order to mitigate its impact on the existing wetlands and habitats, and to ensure appropriate landscaping and planting is provided.

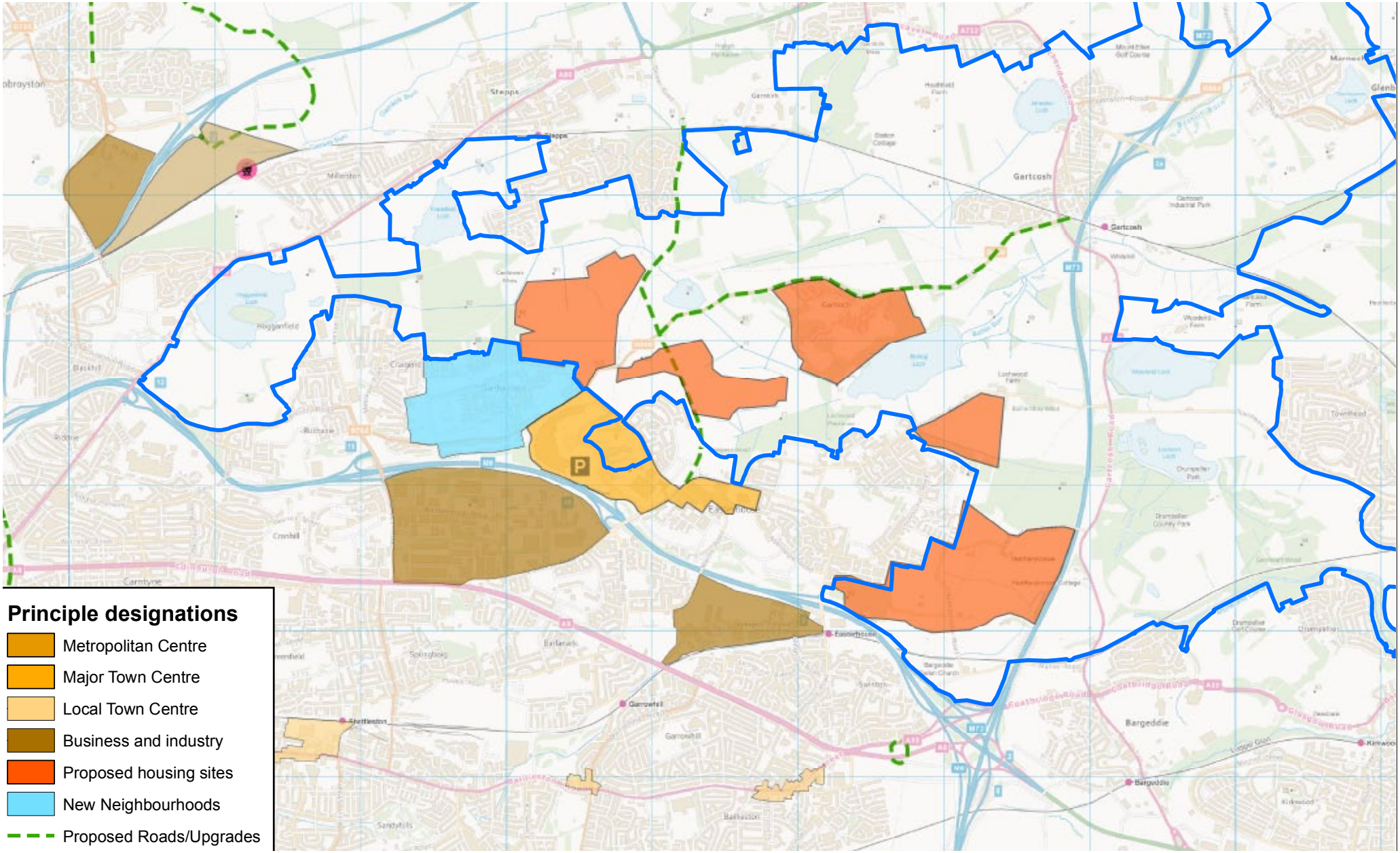


Fig. 4.01 Glasgow Local Plan Designations

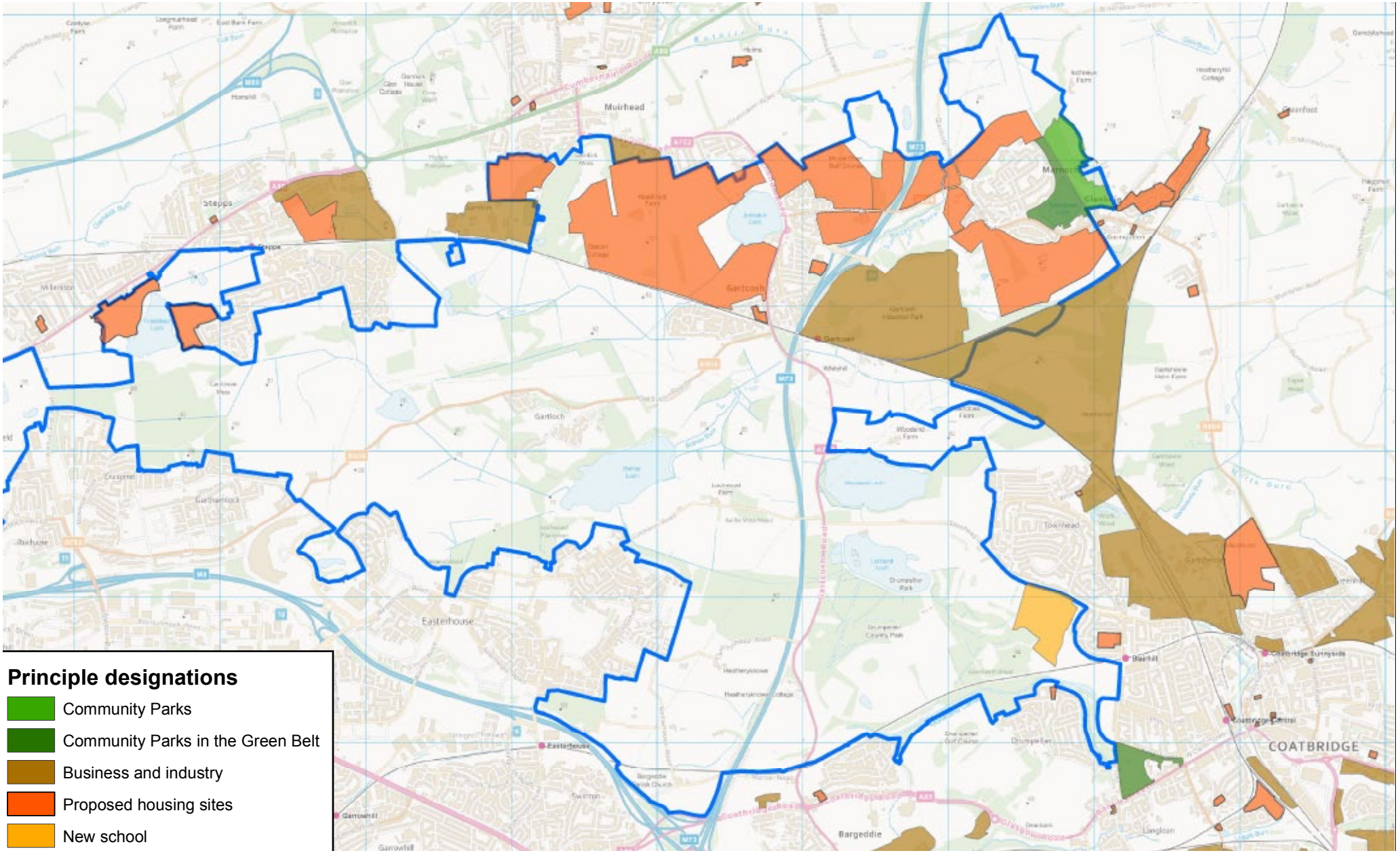


Fig. 4.02 North Lanarkshire Local Plan Designations

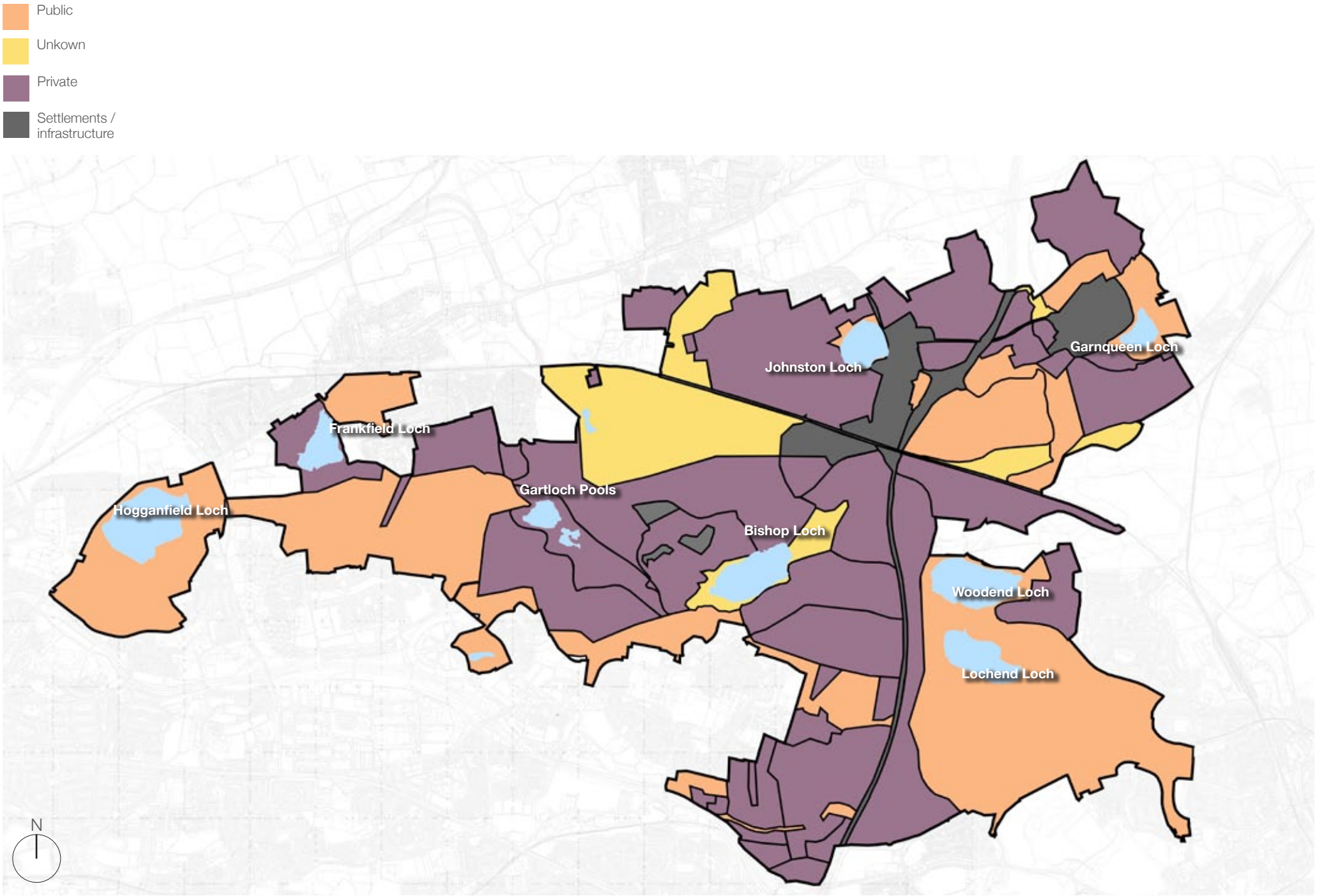


Fig. 4.03 Land ownership

Land ownership

The proposed boundary of the Seven Lochs Wetland Park falls between Glasgow City Council and North Lanarkshire Council. The management of publicly owned land and planning decision making therefore falls to two different bodies. Additionally Glasgow City Council has agreed a lease with Forestry Commission Scotland, which now manages woodlands along the northern and eastern edge of Easterhouse. It also leases Blackfaulds Farm through an agricultural tenancy. Good co-ordination of land management and land use planning between these public bodies is crucial to the success of the proposed park.

Privately owned land is in multiple land ownership, and ranges from large blocks to smallholdings of just a few hectares. A thorough investigation has been undertaken to identify current owners of land within and around the proposed park area, but some gaps where ownership is unknown remain. Privately owned land is currently used for agriculture, primarily grazing, with significant areas of unmanaged / abandoned land associated with areas of potential development. Partnership working, which recognises the needs of land owners and managers, and balances this with other wetland park aspirations is crucial. Park proposals must be carefully considered to ensure that land ownership issues are minimised in each phase of the park's development. There are a range of funding opportunities which can support land management for conservation and access, and discussion with landowners should focus on maximising these.

Where private land has been identified as having potential for development, there is scope for land transfer or management agreements to bring areas into public ownership/ management. Where the opportunities arise this should be linked to extending existing nature reserves, or extending existing / creating new amenity greenspace. Some negotiations are already in progress with land owners linked to the development of identified Community Growth Areas.

Fig. 4.04 Pylons

Fig. 4.05 High pressure gas mains

Fig. 4.06 Road infrastructure

Fig. 4.07 Rail infrastructure


Fig. 4.08 Gartcosh train station


Fig. 4.09 Gartcosh train station


Fig. 4.10 Gartloch Road

Physical infrastructure

The Seven Lochs Wetland Park sits within a triangle of major roads and railway lines, and although this provides good transport connections both locally and nationally, it is not without its draw backs. Existing road and rail connections provide fast routes past and through the proposed park, but provide little direct access into the park. People travelling by car and rail currently pass by without realising the wetlands are there.

To the north of the site is the Glasgow to Cumbernauld railway line, with stations at Stepps and Gartcosh and a proposed new station at Millerston. Whilst these stations offer access to the park at specific locations, the railway line forms a physical barrier across the north of the site. To the east, the M73 motorway divides Lochend Loch, Woodend Loch and Drumpellier Country Park from areas to the west. To the south of the site lies the M8 motorway and a section of the Glasgow to Coatbridge railway line. Finally, the A80 and the M80 are located to the north western edge of the park.

Opportunities to increase the visibility of the park from transport corridors must be examined. A clear wetland park identity and careful branding and signage will be instrumental in bringing visitors to the site by train and car. To promote access from surrounding communities, proposals for the park must address barriers created by transport infrastructure within the park. This is paramount to ensure the success of the park on a local as well as national level.

Other physical infrastructure that impact upon the development and management of the park are electricity and gas transmission lines. A number of high voltage transmission lines cross the site from an electricity sub-station adjacent to Woodend Loch. High pressure underground gas mains also cross the site. Land use, land management and development are strictly controlled along the route of these services.

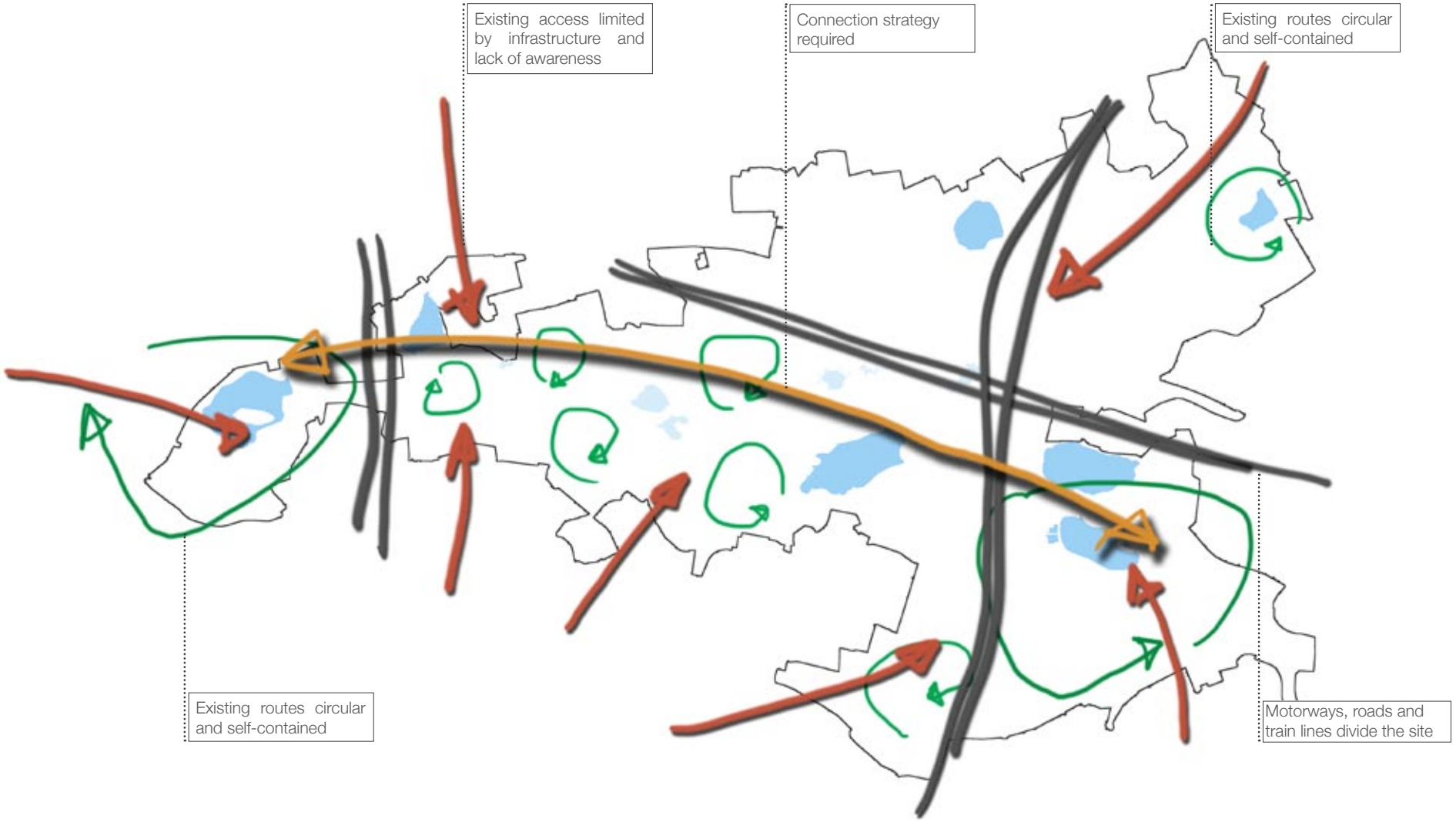


Fig. 4.11 Access and awareness factors

Existing access and awareness

Sites like Drumpellier Country Park and Hogganfield Park are already well used amenities. The success of these parks, together with community led initiatives such as Glenboig Village Park, is a sound basis upon which to encourage wider awareness and access, and build a strong identity for the wetland park. A 'Visitor Planning and Recreation Development' study has been carried out to inform a strategic approach across the wetland park.

Access beyond well used sites is limited by a number of factors. Understated and untidy entrances with limited or no signage, a lack of defined routes and a general lack of awareness of what the area has to offer mean the recreational potential of the site 'as a whole' is not currently realised. Existing routes are mainly circular or contained within separate areas of the site, adding to a sense of dislocation.

Gartloch Road, which links Gartcosh with Easterhouse, could offer an attractive route through the centre of the park, most notably where the road bisects the Gartloch Pools. The road is currently neither pedestrian or cycle friendly, and combined with the intermittent nature of paths on the site, there is little opportunity for longer routes through the park. Improved signage and route delineation are crucial, as is increased connectivity between sites. Given the scale of the park the scope for routes which are designed for cycling and horse riding must be explored.

Local communities will be the principle users of the site, and it is vital that they have an active role in the development and management of the park. New and improved facilities must be inclusive, offering something to both local residents and visitors to the area. Repeat visits are important, so facilities that can be adapted for different times of year, types of activity and user groups are important. There is an opportunity for awareness and respect for the park to continue to grow as the park becomes an established part of community life.

Fig. 4.12 Evidence of tyre burning on Rogerfield Road, West Maryston

Fig. 4.13 Graffiti and tagging, Commonhead Road

Fig. 4.14 Fly tipping at Lochwood Road

Anti-social behaviour and vandalism

There is significant built development within and immediately around the park. Whilst the area is generally viewed as an important asset and local resource, not all local residents engage positively with it.

In November 2010 Forestry Commission Scotland (FCS) carried out an attitudes survey of residents of the Greater Easterhouse area. Whilst the findings relate specifically to the areas of woodland around Easterhouse which are under FCS management, they can inform the larger proposed park area. The consultation cited problems relating to security, vandalism, anti-social behaviour and territorialism as the main barriers to the use of the area's considerable assets. Residents noted gangs as a major issue with youths within Greater Easterhouse.

Established drinking dens are prevalent within the proposed park area, particularly where Easterhouse borders onto Bishop Loch, and in the area to the south of Easterhouse known as West Maryston, managed by FCS. This area in particular suffers from extensive vandalism and is regularly used for tyre burning and dumping. Fly tipping is a considerable issue around the southern edges of the park. Litter is particularly prevalent around the areas of West Maryston, Commonhead Moss and around Bishop Loch.

Signage and identity were noted as important ways to raise awareness of the park's significance in order to deter anti-social behaviour and vandalism. Signage in and around the park, as well as at key areas such as the Shandwick Square Shopping Centre, the Fort Shopping Centre, and The Bridge would help to improve awareness and encourage people into the park. The more the park is used by local residents, the more it will be recognised as an important asset, and the more likely it is to become self-policing.

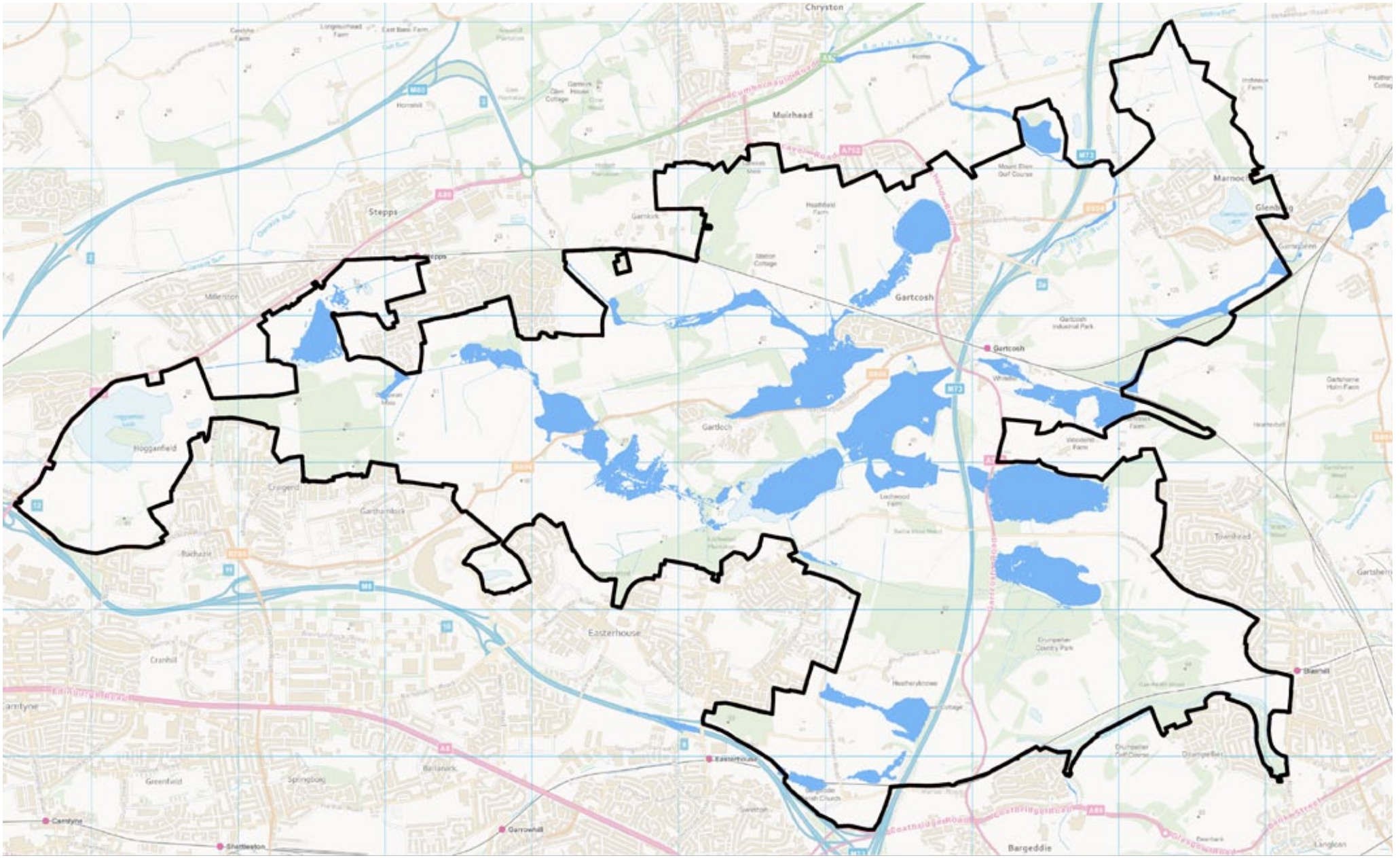


Fig. 4.15 200 year flooding extent

Flood risk and management

A major Hydrological study published in 2011 examined surface water and flood risk management within the wetland park. Drawing on a huge range of datasets a comprehensive model of all the watercourses in the wetland park has been constructed. This examines water levels and storage volumes for the main watercourses and waterbodies to accurately calculate water flow against time and peak flow estimates for all sub-catchments within the wetland park area.

The model has been used to map flood extents for a range of flood scenarios, including future climate change. These maps help identify where planned development may be at risk from flooding, and opportunities for wetland creation and management to help minimise this risk.

A Surface Water Management Strategy has also been developed to inform future development. The strategy aims to balance environmental constraints and opportunities, integrating development into the wetland park through the creation of new green infrastructure, green street layouts, surface water floodplains and habitat links to surrounding wetlands. It sets out key concepts for surface water management, aiming to achieve greater multi-functionality and a better balance of risk and benefit.

The Hydrology study identifies key issues for future surface water management. The creation and management of the wetland park will draw on the study to examine the creation of new wetland habitats, can improve water management within the park, and help reduce flood risk in surrounding communities and in areas downstream of the wetland park.

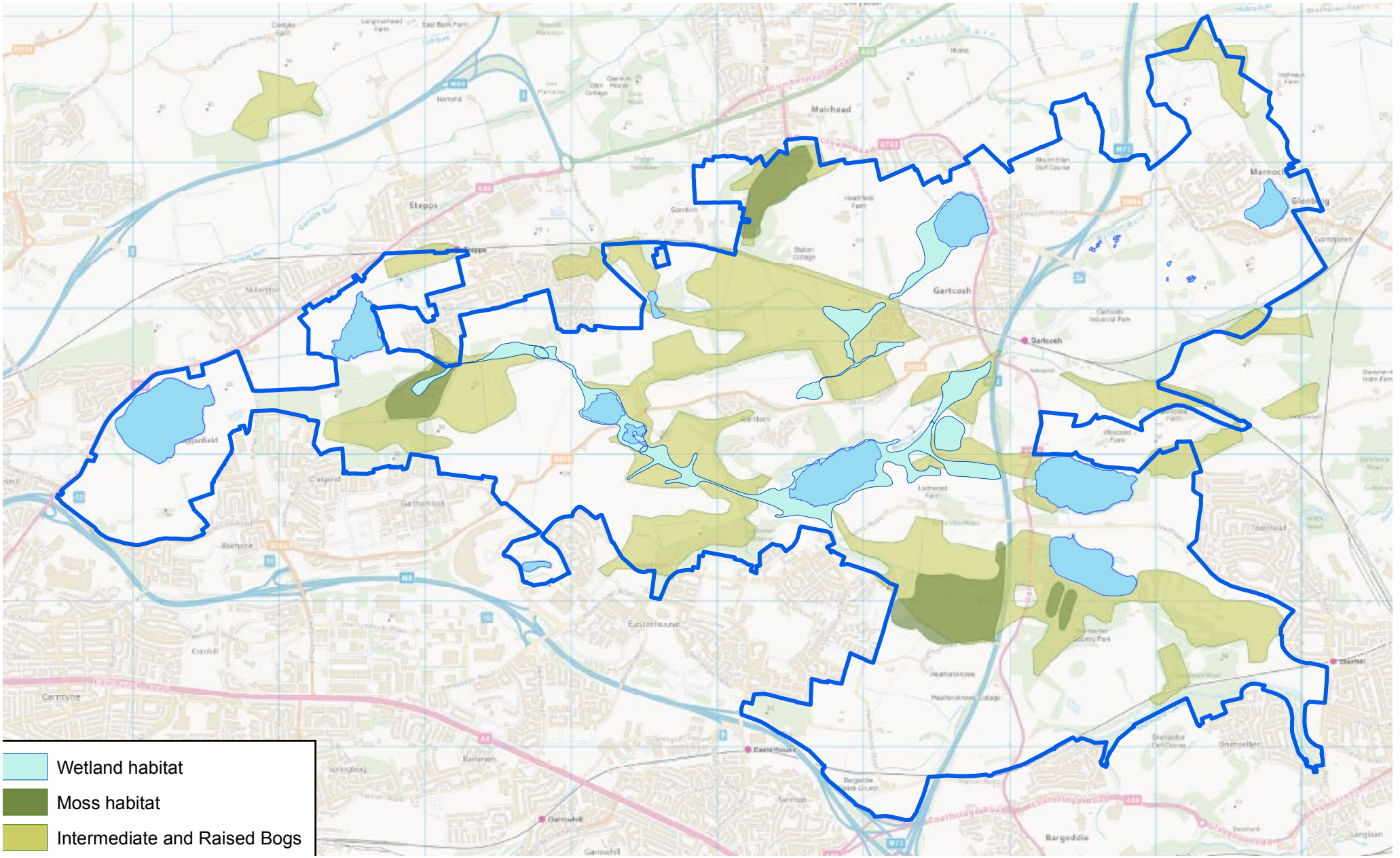


Fig. 4.16 Areas of moss and bog

What are ecosystem services?

Supporting services: 'Services necessary for the maintenance of all other ecosystem services such as soil formation, photosynthesis, primary production, nutrient and water cycling';

Provisioning services: 'Products obtained from ecosystems, including food, fibre, fuel, genetic resources, biochemicals, natural medicines, pharmaceuticals, ornamental resources and fresh water';

Regulating services: 'Benefits obtained from the regulation of ecosystem processes, including climate regulation, maintaining air and water quality, pollination, controlling pests and natural hazards, and flood and erosion management';

Cultural services: 'The non-material benefits people gain from natural areas through recreation, aesthetic experiences, cognitive development, learning and reflection, taking account of landscape values'.

Ecosystem services

The role of natural areas in providing a range of ecosystem services, and the role of land use planning and management in protecting and enhancing these services, is increasingly recognised. Services range from essential life support systems to provision of food and materials and regulating climate and water resources. The development and management of the wetland park must aim to protect and enhance these vital services.

Woodland and wetland habitats, including areas where peat soils can form, have an important role in absorbing and storing atmospheric carbon, helping to mitigate future climate change. This must be balanced against the release of methane, another greenhouse gas, from some wetland habitats. Reed beds and marsh can help remove nutrients from water, and therefore have an important role in managing water quality. The production of food, fuel and other materials from land management within the park, especially where these can be linked to local markets, must also be examined as the park develops.

Other important services provided by natural areas like the wetland park are the non-material benefits people gain from engagement with nature and landscapes. Planning and management of the park must maximise these benefits by supporting broad participation and engagement, balancing the needs of a range of users and the need to protect habitats and nature.

These ecosystem services are essential to the wellbeing of the Glasgow and Clyde Valley region and it's resilience to climate change. The wetland park must contribute to improving the quality, quantity, connectivity and diversity of the wider Green Network supporting a range of services, and demonstrating how these are important to people's quality of life.

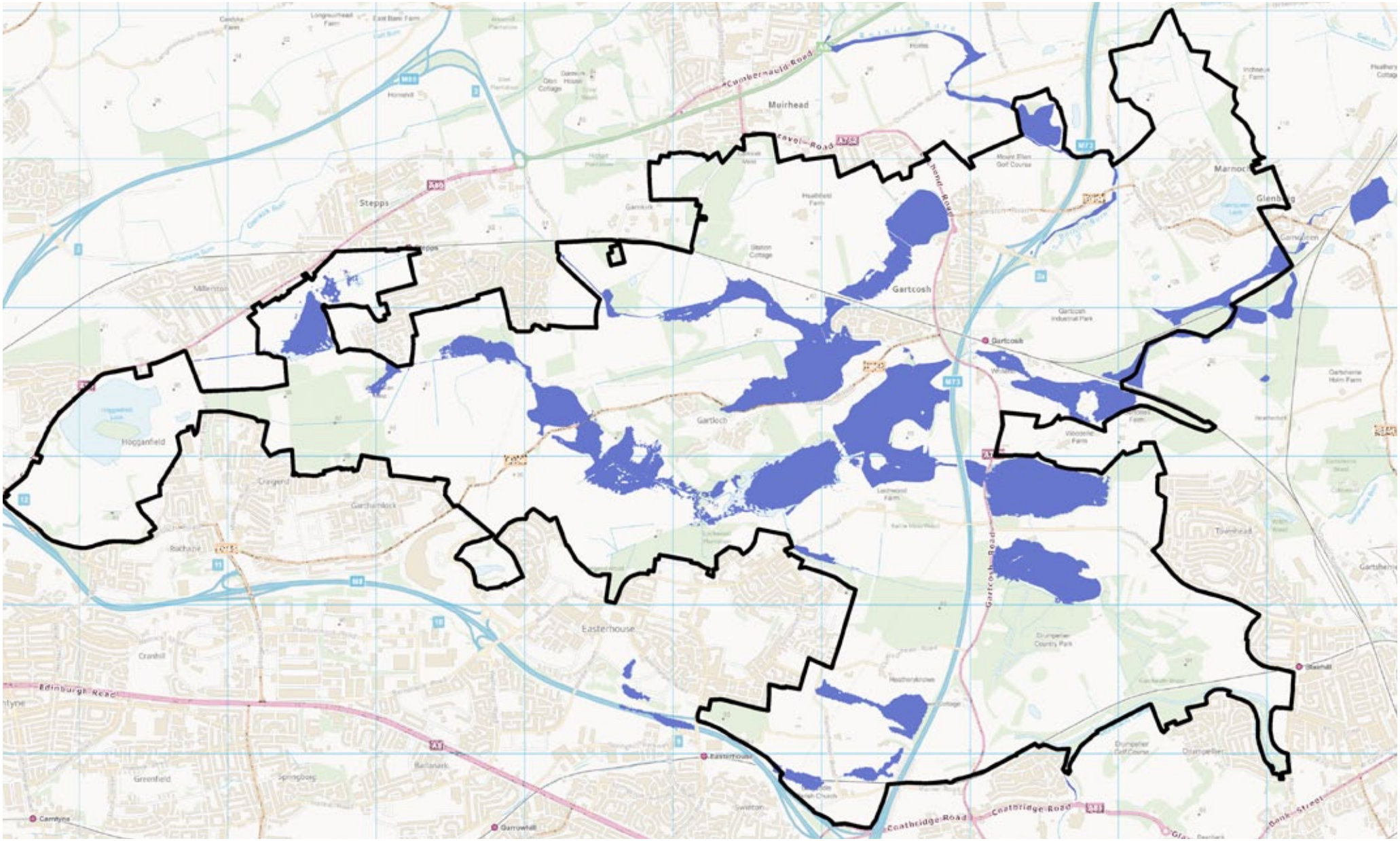


Fig. 4.17 200 year flooding extent including climate change flood extent

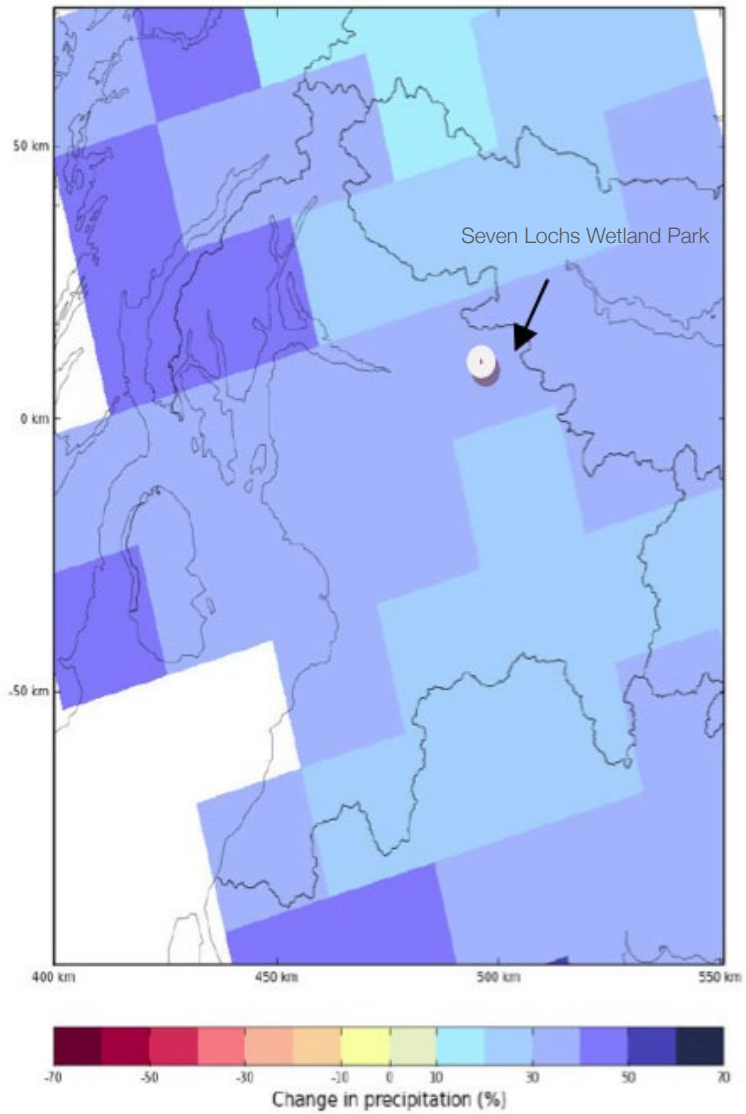


Fig. 4.18 Predicted change in precipitation

Climate change

Planning for the future is essential. Climate change projections for the Gartloch Gartcosh area show that both temperatures and precipitation will increase, as will the frequency of high intensity storms. Planning for the wetland park must consider how the park can support adaptation to predicted changes, reduce greenhouse gas emissions to help mitigate future climate change, and contribute to a 'climate ready' city region.

There are records of significant flood events associated with watercourses which drain from the wetland park. Surface water management within the park will have impacts along the length of these watercourses, and the lochs and associated wetland habitats can offer huge water storage capacity, holding water during high intensity rain events and releasing this to watercourses once the storm has subsided. Carefully planned water storage can also be linked with new habitat creation, and must be a key element of the planning and design of all new developments.

Nature must also adapt to climate change, and increased temperatures mean that some species may have to shift their range northwards to find suitable climatic conditions. Habitat networks around and through urban areas will help enable species movement. The wetland park will be an important element of these wider networks.

Climate change mitigation at the wetland park must go beyond the role of natural habitats to include the use of low-carbon materials for new infrastructure, energy efficiency and renewable energy associated with new development and visitor infrastructure, and encouraging low carbon lifestyles through education and interpretation. There are opportunities to look at the potential for wind and solar energy within the park area, perhaps associated with new buildings. The creation and management of woodlands within the park could also identify areas suitable for short rotation coppice to supply fuel for biomass boilers.

05 Recreation Proposals

Access, routes and wayfinding

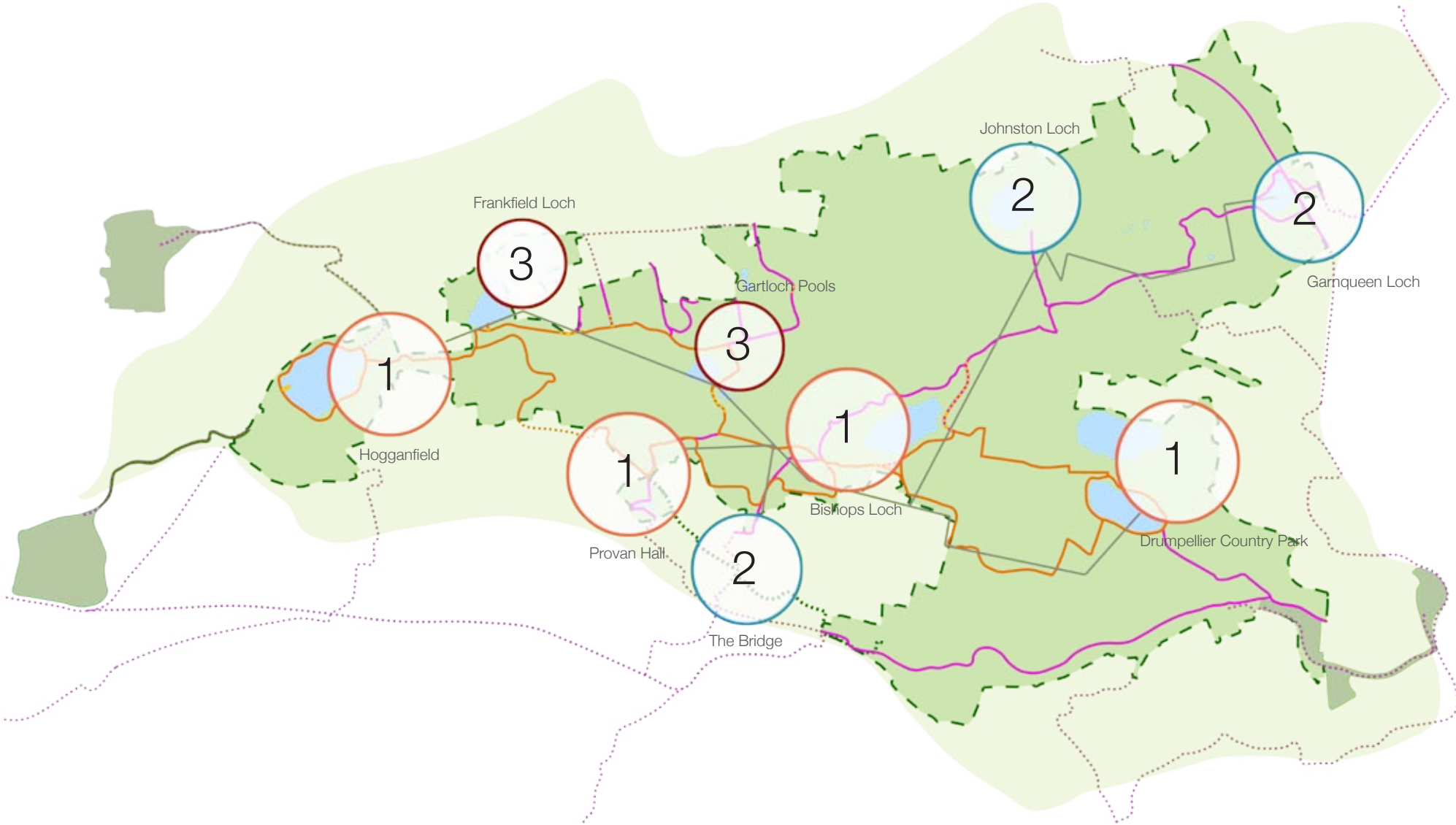


Fig. 5.01 Outline recreational strategy - prioritising amenity development (as per Moffat report)

Recreational development

The development of a broad and comprehensive visitor offer, providing enhanced, extended and new visitor facilities and services to both local communities and visitors, is crucial to the park's role as a catalyst for social and economic regeneration in the area. At present, the sites which make up the new park are extremely diverse in terms of their amenity value, popularity and profile. The creation and development of the wetland park must bring existing sites together in a way that protects and enhances the identify and recreation value of individual sites, while also offering a visitor experience that adds up to more than the sum of its parts.

A study to review existing visitor facilities within the proposed park and examine visitor numbers and profile at comparator sites across the UK, was commissioned to inform the development of a clear visitor planning and recreation development plan for the park. This proposes that the wetland park builds on the strengths of individual areas by reinforcing their identity and purpose, and linking existing sites both physically – through a network of routes and destinations – and mentally – through careful branding, improved interpretation and community engagement. The plan focuses on creating a strong sense of place that draws on the wetland environment and local history and culture.

Key developments in establishing the visitor offer are to:
- Develop accessible, identifiable gateways
- Establish clear routes and connections
- Populate the visitor journey with interesting activities / attractions
- Create a basis for enterprise development
- Support visitor and community engagement

This will ensure that the wetland park delivers a high quality of visitor activities, services and amenities. This will reinforce the park as a must-see destination, drive repeat visitation, increase use of existing facilities and encourage use of new areas, and act as an engine for economic and social regeneration.

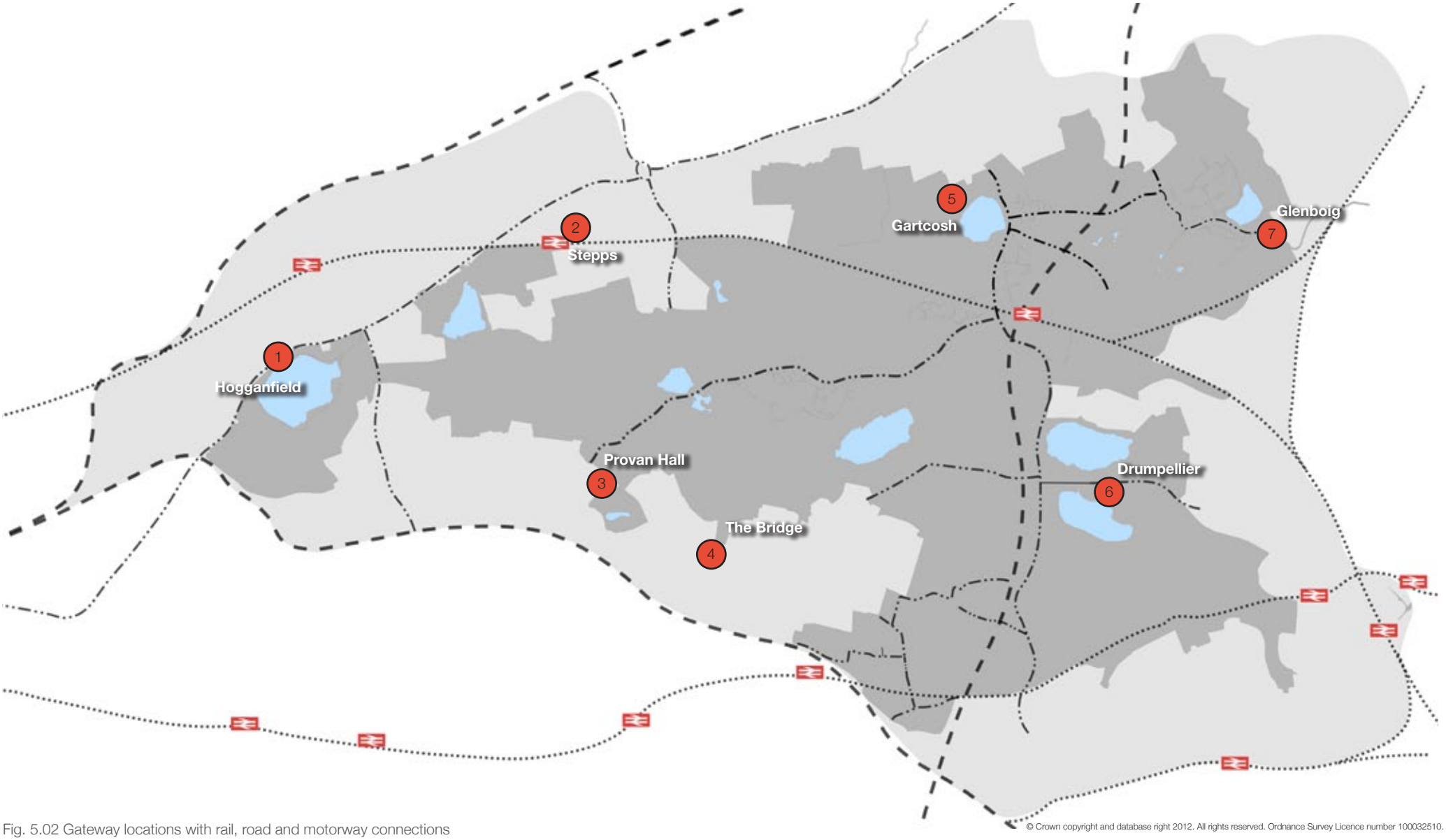


Fig. 5.02 Gateway locations with rail, road and motorway connections

1 Hogganfield Park

2 Shops and Visitor Centre, Stepps

3 Provan Hall, Easterhouse

4 The Bridge, Easterhouse

5 Johnston Loch Tearoom, Gartcosh

6 Drumpellier Country Park

7 Glenboig Life Centre
(by gca architecture + design)

Fig. 5.03 Gateway buildings

Gateway buildings

The Seven Lochs Wetland Park can be accessed from many entry points around the park. To provide a clear sense of welcome, offer orientation and interpretation, and support visitor and community engagement, seven gateway buildings are proposed.

The gateways all have a unique role to play in encouraging visitors into the park. The expansion and enhancement of existing buildings at Hogganfield Park and Drumpellier Country Park, and construction of a new, purpose built gateway centre at Provan Hall, have the scope to offer a broad range of facilities and activities. Provan Hall is an important historical feature on the site, and is a valuable asset to a park gateway providing a historical perspective, whilst also taking advantage of its proximity to the Glasgow Fort Shopping Centre, which attracts millions of visitors to the area. These gateways would aim to attract people from further afield, linked to their good road and rail connections, as well as housing staff and hosting events that engage both local people and visitors. The development of these gateways must examine and address capacity issues, and aim to ensure that demand can be met at peak times.

Proposed gateways linked to existing facilities such as The Bridge at Easterhouse and private enterprise at Johnston Loch, and proposed new facilities at Glenboig and Stepps, would have a more local community orientated and educational role to play. The Bridge is already an influential landmark, and can provide a base for educational and recreational use of the park by colleges, schools and community groups. A proposed Life Centre at Glenboig would link the wetland park to the very active community development work undertaken by Glenboig Neighbourhood House. The gateway buildings would be a mix of public, community / social enterprise and private provision.

While most of the gateway buildings are linked to a specific site, it is important that they signpost opportunities across the wetland park and encourage wider exploration. This could include services, such as cycle hire, to enable visitors to start their visit at one gateway, and end at another. The gateways must service basic wants and needs, such as parking, shelter, toilets, orientation, interpretation and play, while also providing discretionary wants, such as food, drink and activity provision, that are appropriate to the size and nature of the building.

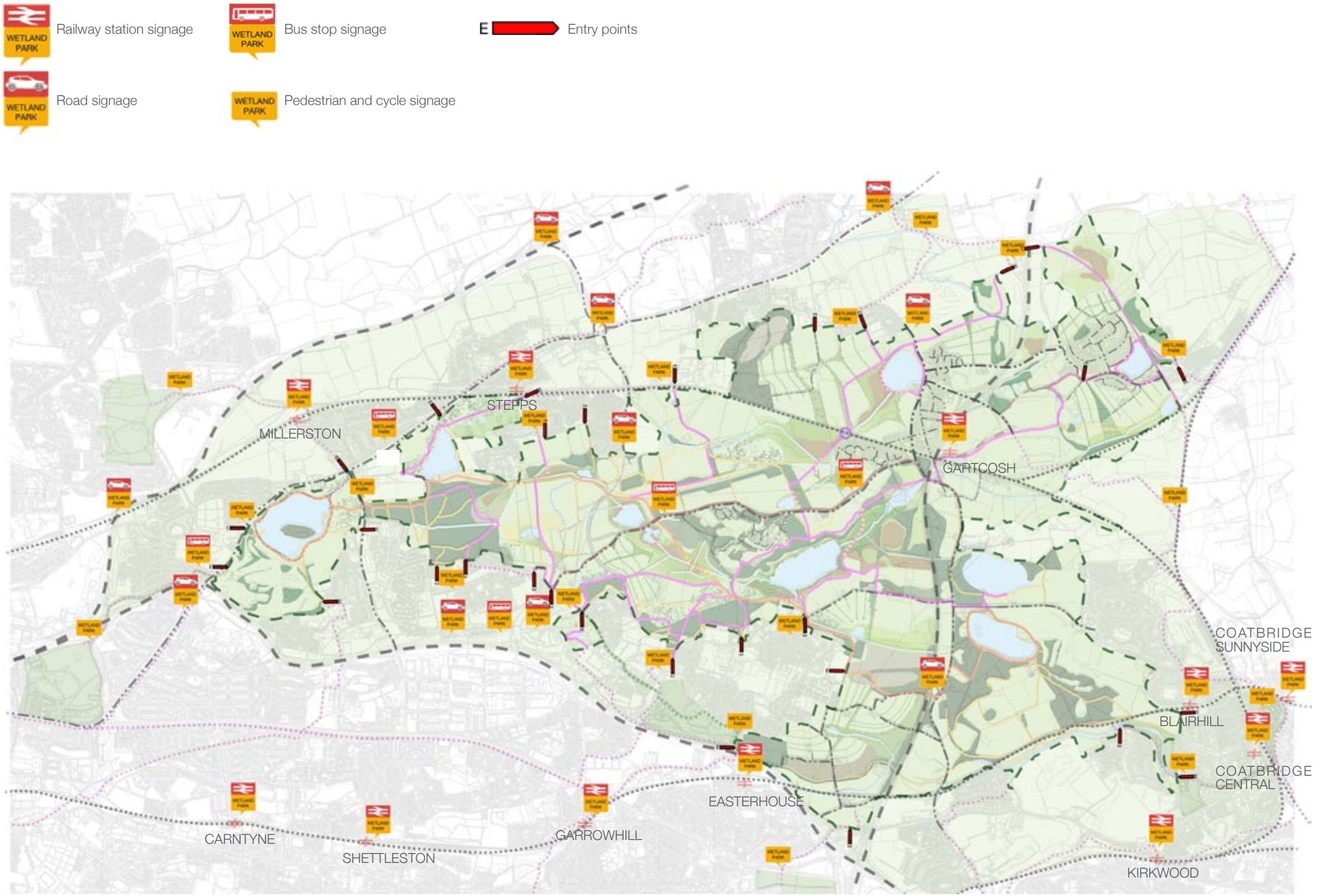


Fig 5.04 Wayfinding - strategic signage locations

Visibility

The physical scale of the wetlands, coupled with appropriate signage and branding, are key to enhancing the visibility of the Seven Lochs Wetland Park. Signage around the park must direct people to appropriate gateways and visitor facilities, increase awareness of the amenities available in the park, and minimise potential impacts upon sensitive habitats and wildlife.

Whilst road and rail infrastructure does create considerable barriers to access across the park, this infrastructure also provides an opportunity to increase awareness of the park. Signage could greatly enhance the visibility of the park to the thousands of people who pass by every day. Well placed directional signage at motorway junctions on the M73, M8 and M80 is important to bring visitors directly into the site.

Public transport connections around the park are good, and include the recently reopened rail link to Edinburgh, which - with travel times of around an hour - will mean many more passengers travelling through and around the park. Welcome and orientation information at Gartcosh, Stepps, Easterhouse, Blairhill and Coatbridge train stations will increase awareness of the park to rail passengers. A number of bus routes pass through and around the site, and further signage at bus stops will also enhance visibility. Raising awareness of the park will encourage those travelling around and through the site to consider a recreational trip to the park, and promotion and marketing information will encourage visitors to use the good public transport networks to access the park.

The Fort Shopping Centre and the Shandwick Square Shopping Centre also have an important role to play. Developing a mutually beneficial relationship with these centres will enable the park to use their existing profile and draw on their visitor numbers, while also providing recreational activities that can add value to a shopping trip. The Fort Shopping Centre has the potential to encourage visitors from further afield, who might not otherwise visit the area due to a lack of awareness, while the Shandwick Square Shopping Centre could be pivotal in communicating the presence of the park to the local Easterhouse community.

The location of the Seven Lochs Wetland Park means there are a wealth of potential access points from local communities. Accessible and attractive entrances, and appropriate signage at key access points from all the surrounding communities will increase the visibility of park to local residents. A consistent approach to the design of entrance features and signage will support the park identity.

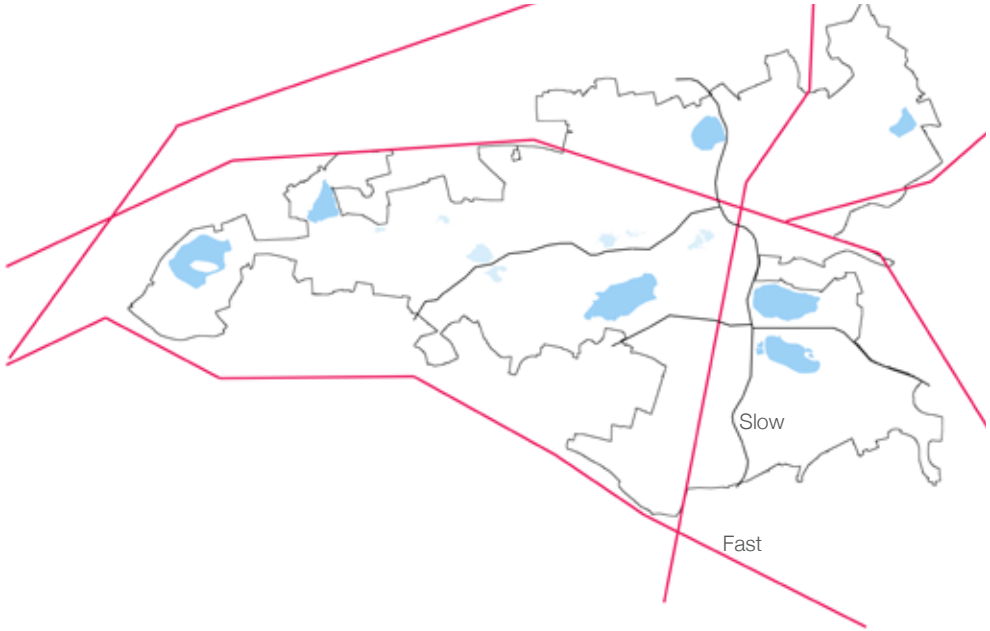


Fig 5.05 Fast and slow routes

Fig 5.06 Opportunities for access and gateways

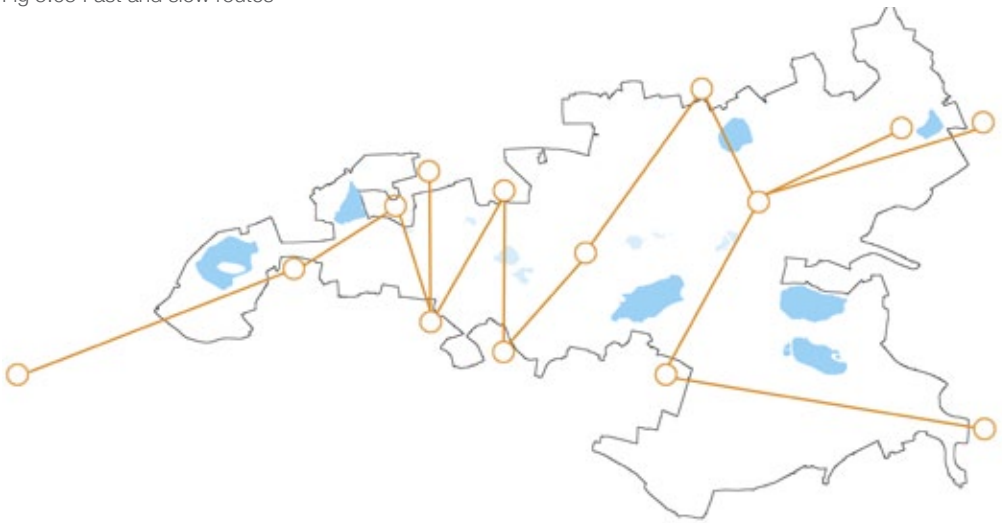


Fig 5.07 Cross-connection of communities - By plotting the possible connections across the park, the potential for the area's improved cohesion and identity can be seen.

Fig 5.08 Combined connections and access strategy

Access

The success of the wetland park as a single entity is dependent upon people being able to move as seamlessly as possible from one part of the park to another. A survey of the use of the woodland areas in the Bishop's Estate by the Forestry Commission Scotland (FCS) found that only 17% of those surveyed currently crossed through the park to reach other areas. This may be due to poor links and signage, and a lack of clear destinations. Development of the park must create wider access networks which establish clear connections across the park for a range of user groups.

Access networks, building on existing core path plans, will be developed to enhance linkages between communities, and connect previously separated or difficult to access areas. However, there are a number of barriers to developing wider connections across the proposed park, including physical infrastructure, land ownership and management, and potential disturbance to habitats. Access planning will need to take account of these.

Important steps will be to;
- Improve pedestrian / cyclist access at bridges across the M73
- Discuss and agree access planning and networks with land owners and managers
- Identify sensitive habitats and design networks to avoid disturbance

The size of the park makes it suitable for a range of users, and access networks will be planned to facilitate walking, cycling and horse riding. The planning, design and management of these networks must minimise potential conflict between users and address unlawful use, such as motorbikes / quad bikes. Leisure cycling has increased dramatically in recent years, and networks and other facilities, such as cycle racks and cycle hire, will be planned and developed in partnership with cycling organisations. Similarly, there are a number of stables within and around the wetland park, and there is potential to develop equestrian routes in partnership with them.

Access networks, access to facilities and activities, and information provision must also meet Disability Discrimination Act requirements and encourage 'access for all'. By working with national and local advocacy organisations the development of the park will aim to achieve best practice in providing better outdoor access for disabled people.

Increasing access across the park will also help address another concern expressed in the FCS report, that of vandalism and anti-social behaviour. An increase in park users, including those purposefully crossing the park from one community to another, can help to self police the park with 'responsible users outnumbering irresponsible users'.

Fig 5.09 Principal East - West route

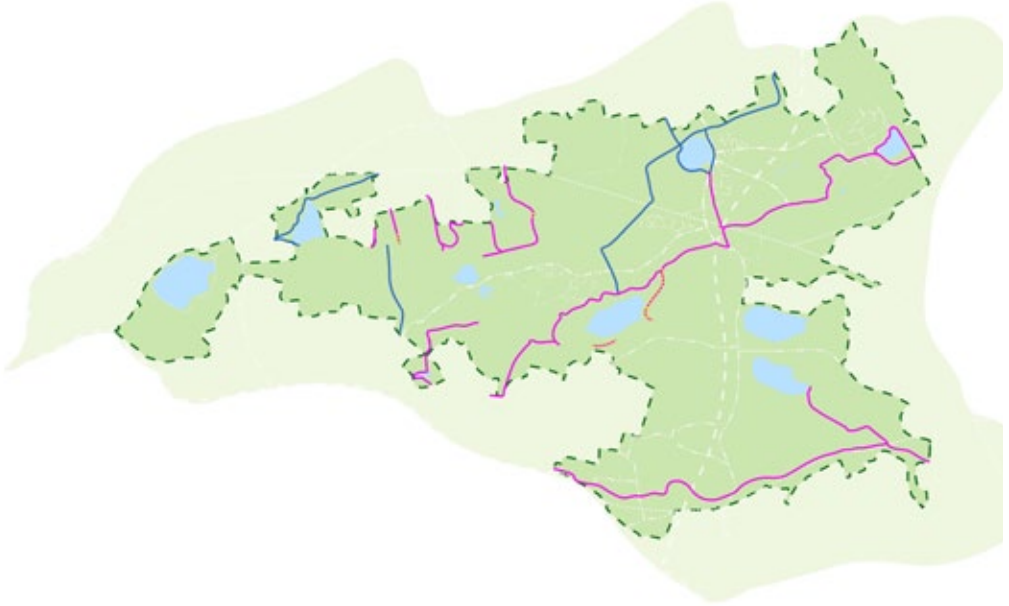


Fig 5.10 Secondary routes

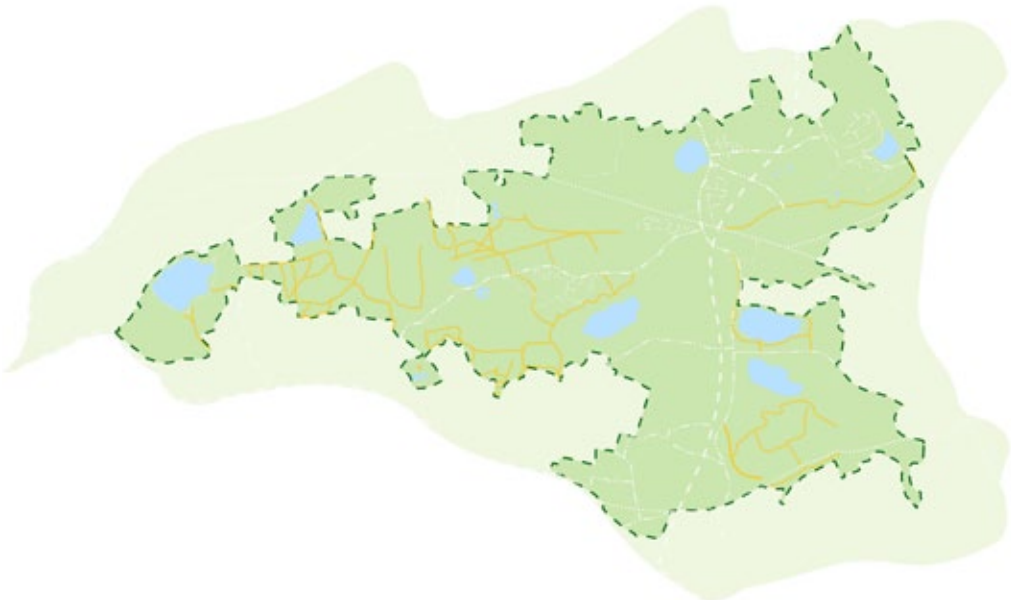


Fig 5.11 Additional routes and tracks

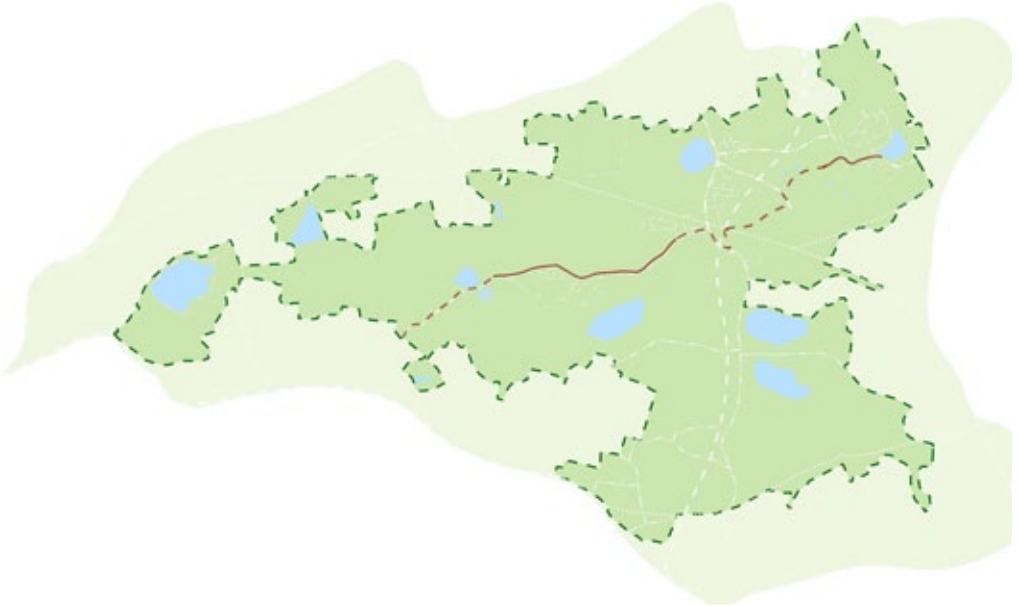


Fig 5.12 New cycle route on Lochend Road

Routes

The development of access networks across the park will be supported by the creation of key routes. These will be clearly signposted and waymarked with links to interpretation information. They will be designed to link key destinations, enable visitors to experience a range of habitats and landscape features, and will be carefully planned to ensure existing and proposed habitat areas are not disturbed.

The main routes proposed are as follows:
1. Principal east-west route
2. Secondary routes
3. Informal tracks
4. Dedicated cycle route following Gartloch Road

The principal east-west route is a key part of the overall strategy for the wetland park. It will act as the spine running through the centre of the park, linking with secondary and additional routes, access points and visitor amenities. Secondary routes increase access into the park from surrounding communities, connecting into the main principal route, enabling long through-routes within the park.

The proposed informal tracks within the park primarily use existing paths. However, with better signage these paths will provide a number of functional connections and circular routes for local communities. This aims to facilitate walking and encourage local buy in.

The proposed new cycle route alongside the Gartloch Road, will create a quick and direct route through the park from east to west, with links into further connections to the north and south.

Fig 5.13 Outdoors activities in the wetland park

Features and activities

The development of gateways and routes must be linked to establishing a number of visitor journeys which encourage wider exploration away from gateway sites. These journeys must be punctuated with a mix of things to see and do, or provide themed challenges and ‘tick lists’ that encourage people to explore new areas.

Features will include both natural and man-made elements, including new built features which use juxtaposition and contrast to emphasise both the urban location and the sites natural character. Sculptures, installations and natural play features will encourage interaction and support local community participation. Other features could change and adapt to reflect changing seasons, or to engage with different user groups.

Other new features will support people in ‘getting close to nature’. This will include web cams linked to both visitor centres and the wetland park website. Guided and ‘hands on’ activities will also help visitors experience and learn about the park’s nature and heritage. A recent survey of visitors to Hogganfield Park found that 60% of people would like to see more events in the park, with environment and family events being their preferred types. Given the size of the park, there is also scope to develop and host regular ‘city wide’ events such as competitive and fun runs, outdoor music and cultural events linked to holiday and festivals. These will help raise the profile of the park, and strengthen its brand image.

As awareness of the park increases, and new features and facilities are developed, there is scope to add further activities and services provided by businesses and social enterprises. These could be based around food and drink, access (cycle / mobility scooter hire), activity sports or education and training.

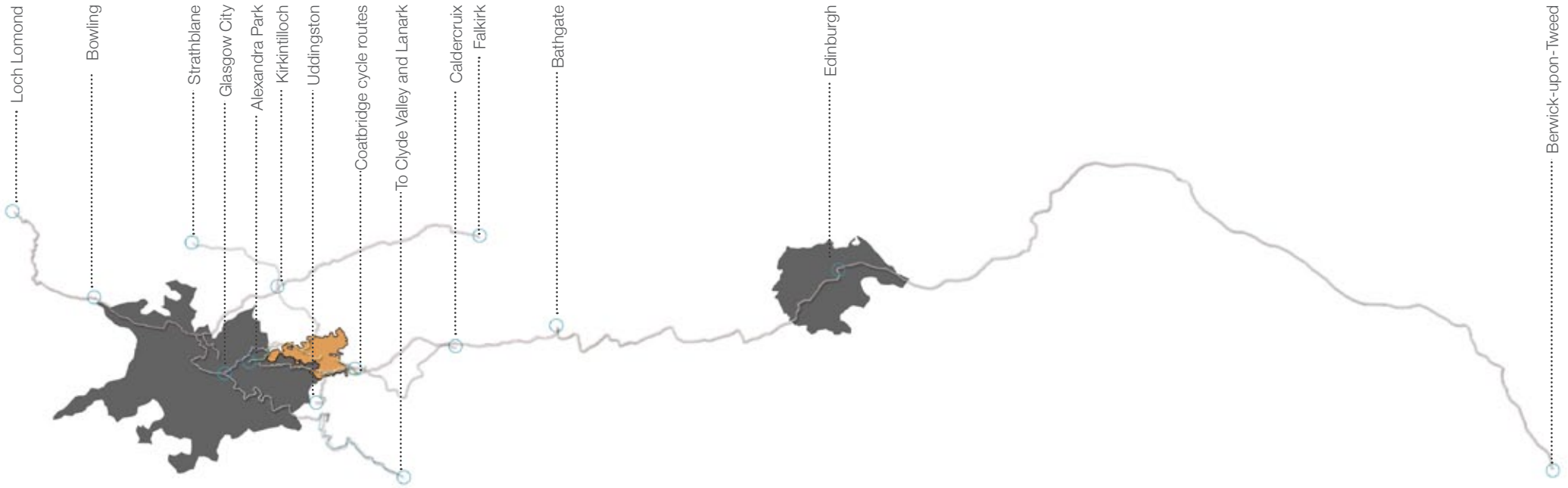


Fig 5.14 Extended cycle and walking routes in the area including the John Muir Way

Wider connections

Significant potential exists for wider connections to core paths and cycle routes that surround the Seven Lochs Wetland Park. Cycle routes within the wetland park can be linked with Sustrans route 75 which links the Glasgow City centre with Edinburgh. Within North Lanarkshire paths within the site can also be linked to both the North Calder Heritage Trail, which links Coatbridge to Airdrie, and the Strathkelvin Walkway, which links Glenboig with Kirkintilloch and the Forth and Clyde Canal.

Within Glasgow walking and cycling connections to the city centre, including the Glasgow to Millerston 'fit for life' route, and south to the Clyde walkway are possible. The park can also provide an attractive route into Glasgow from communities in the east, as identified by the Glasgow and Clyde Valley Landscape Assessment 1998, which described the potential of the area to provide 'a gateway to the Glasgow conurbation from the east'.

Creation and development of the park will enhance connections and routes that support the regeneration of surrounding areas, including Glasgow's east end. Existing greenspaces outwith the park boundary will be enhanced and connected to provide clear, accessible and attractive routes into the park from surrounding communities. Linked to the development of the park are a number of green fingers which will link the park to other sites.

Fig 5.15 Green fingers extend into surrounding communities

Easterhouse green corridor:

This green finger route runs from Auchinlea Park and Provan Hall, through Easterhouse town centre to Blairtummock Estate, where new market gardens are proposed. The green corridor then meets the edge of the park at West Maryston. Linking Provan Hall to West Maryston through Easterhouse provides an opportunity for increasing awareness of the park amongst residents to this area.

Fig 5.16 Easterhouse green corridor

Robroyston Park route:

This route links the wetland park to Robroyston Park and Local Nature Reserve. There is significant housing and retail development underway at Robroyston, with the plans including a new rail halt at Millerston. This green finger would connect existing and new communities in Robroyston with the wetland park, and create a link to the new station. It also offers an opportunity to create a trail which passes through 6 wetland local nature reserves across Glasgow and North Lanarkshire.

Fig 5.17 Robroyston park route

Drumpellier to Summerlee, Coatbridge:

This route connects the edge of Drumpellier Country Park to the Summerlee Museum of Scottish Industrial Life. It crosses the Monkland Canal and follows the line of the Monklands canal, now a linear park, into the centre of Coatbridge. During the day there is direct access to Summerlee Museum from this route. It also offers the opportunity for a wider heritage trail which links industrial, medieval and Iron Age sites.

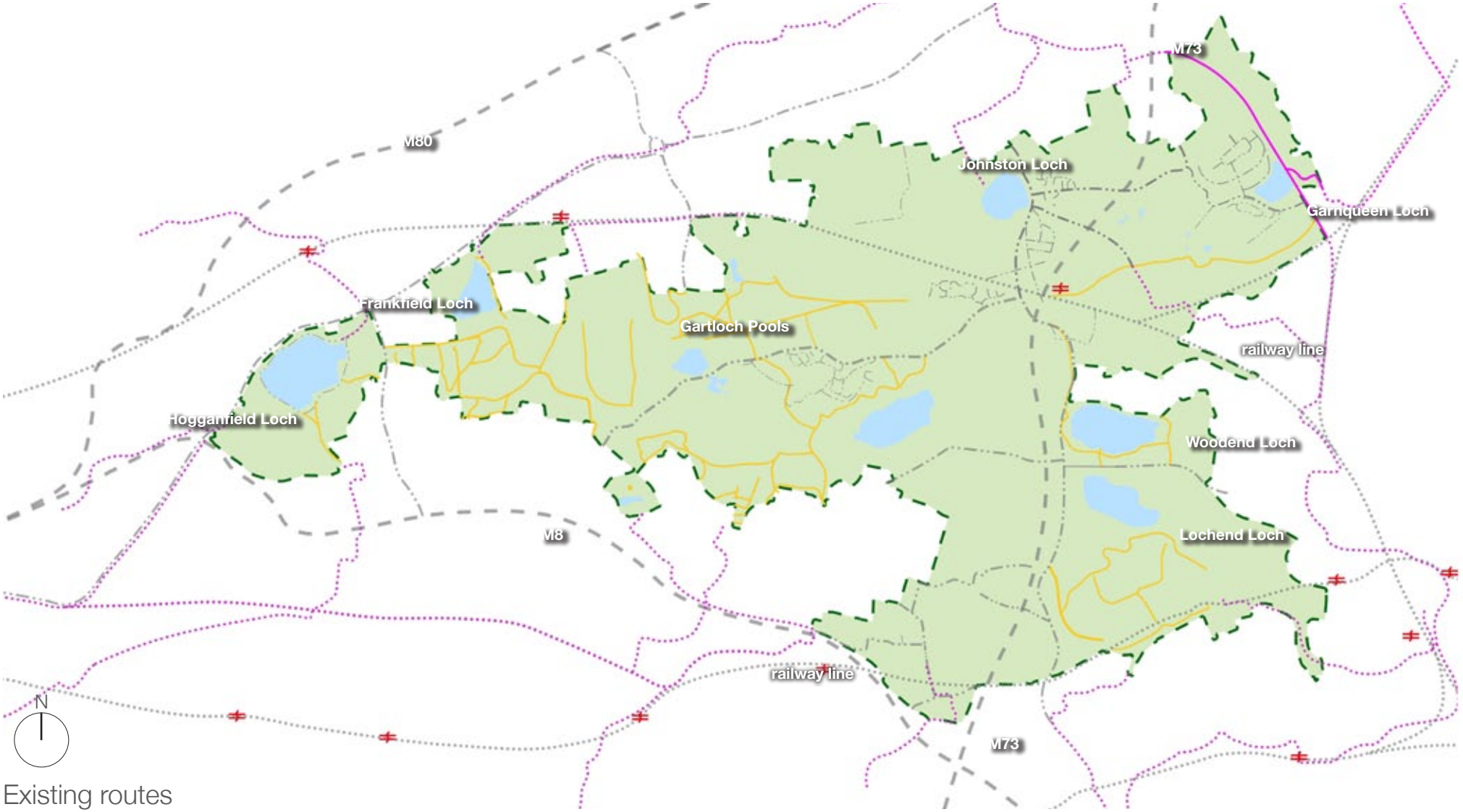
Fig 5.18 Drumpellier to Coatbridge

Green fingers

Links to surrounding communities which encourage residents to actively engage with the park will be crucial to the park's success. By becoming intrinsically linked, both physically and socially, the park and the adjacent communities will both benefit. By improving and connecting greenspace along key routes, the physical links into the park will take the form of green fingers which create attractive routes and support the environmental regeneration of surrounding communities. Some of these green fingers, such paths to the north of the wetland park, use existing routes. Others build upon and extend routes already proposed by other initiatives in the area, such as the pedestrian path alongside the Monkland Canal to the south of the site, which is currently being upgraded by British Waterways.

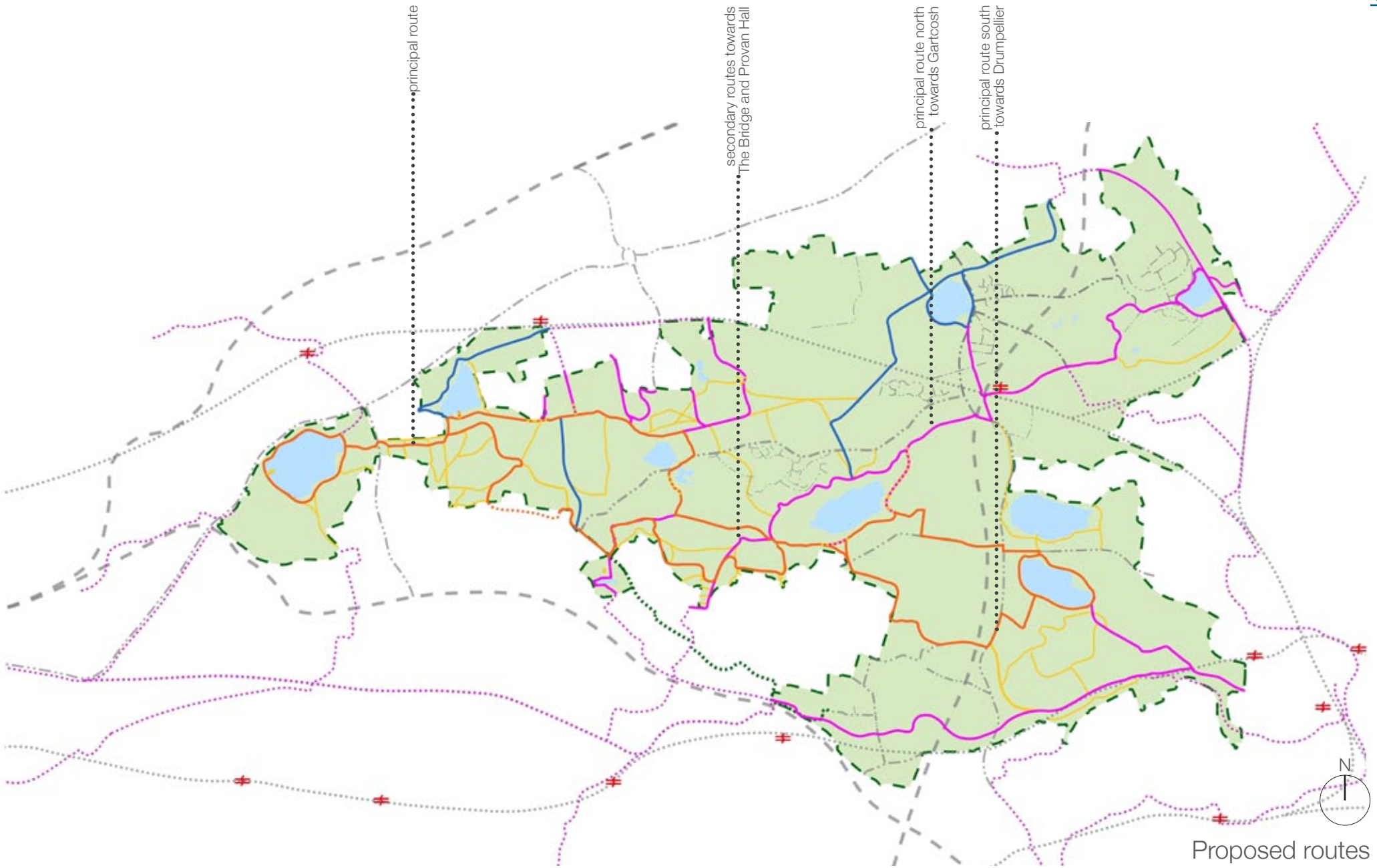
The strategy for the park includes the following green fingers:
-Hogganfield to Robroyston
-Hogganfield to Alexandra Park
-Johnston Loch and Garnqueen Loch to join existing route to Moodiesburn / Kirkintilloch
-Drumpellier to Coatbridge and Summerlee Museum of Scottish Industrial Life
-Monkland Canal route
-Proposed Easterhouse green corridor.

These green fingers support the wider connections identified earlier, and more importantly help take the park to more people's doorstep, extending the park's catchment area and taking the identity of the park further into surrounding communities.



Existing routes

Fig. 5.19



Proposed routes

Fig. 5.20

06 Habitat proposals

Network priorities

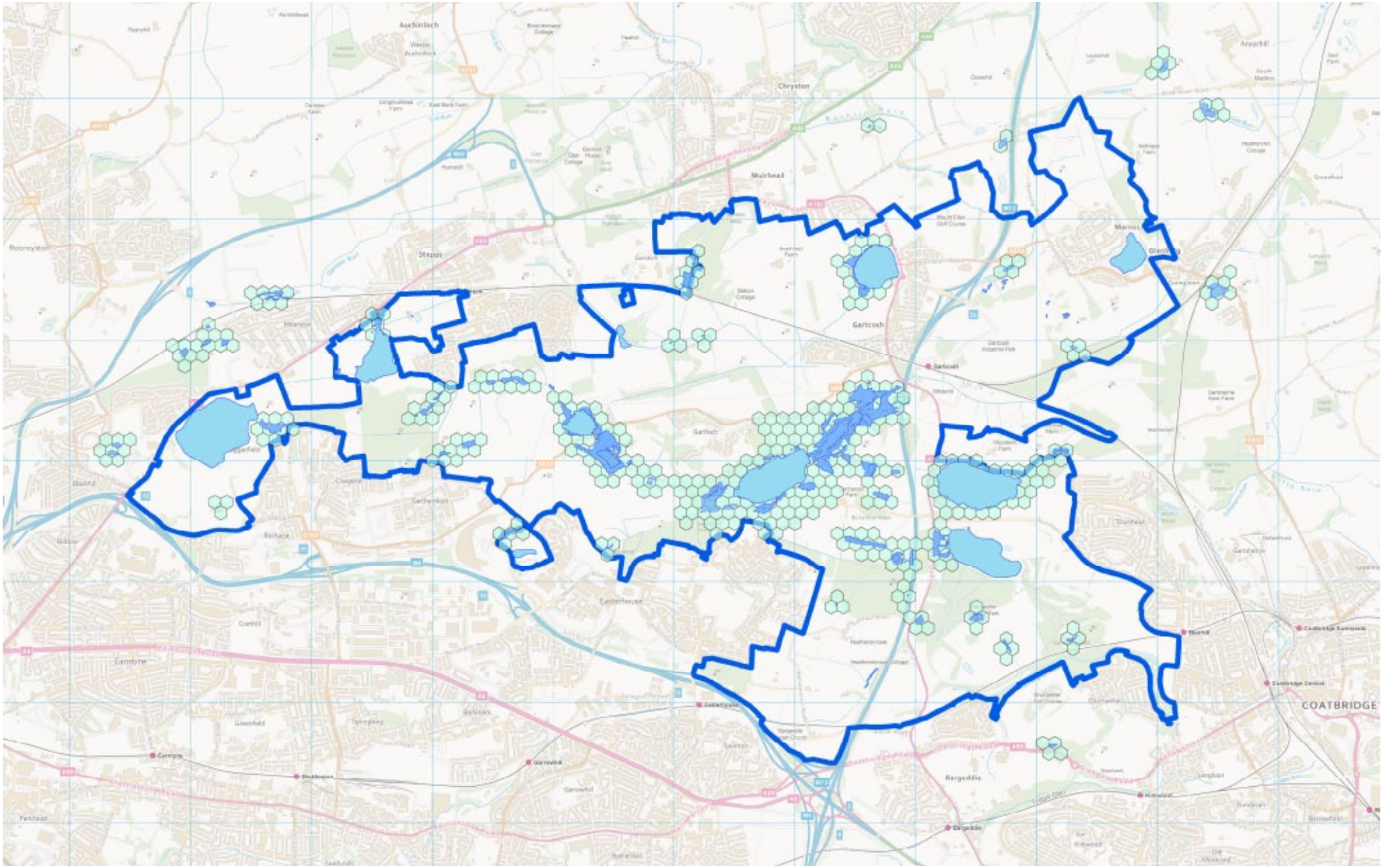


Fig. 6.01 - INH Model indicating wetland opportunities

Habitat networks

Wetland opportunities within the boundaries of the Seven Lochs Wetland Park
There is a clear opportunity to establish a strong wetland network through the heart of the proposed wetland park – running from Cardowan Moss to Gartloch. Habitat enhancement and new habitat creation along this wetland core will focus on a range of wetland habitats to further enhance the transition from open water, through marginal vegetation and reed bed, to wet grassland and woodland.

A second clear priority is to develop habitat links from Bishop Loch east towards Lochend and Woodend Lochs. The focus here will be on fen, wet grassland and raised bog habitat, although a key issue is connectivity across the M74, which as a significant physical barrier to habitat connectivity.

There are a number of other smaller wetland priority areas. Some, such as at Johnston Loch and around Glenboig, will be taken forward by creating new green infrastructure and enhancing green networks linked to planned development. Others, such those within Drumpellier Country Park and Hogganfield Park, will be taken forward through the on-going management and development of these key sites.

There are a range of high quality habitats within the wetland park area, and the protection, enhancement and expansion of these habitats is an important element of the vision for the park. Key habitats and habitat links must be identified and protected. Proposals for new habitat creation must aim to expand existing habitats to create wider networks, and minimise fragmentation and disturbance from planned development.

To support proposals for habitat protection, management and creation, the Integrated Habitat Network (IHN) model was used to identify existing habitat networks within and around the site. The IHN model uses Geographical Information Systems (GIS) analysis to undertake a 'stock take' of habitats in a particular locality or region, and identify priorities for habitat enhancement. As well as mapping existing habitat networks, the IHN model provides detailed information – to hexagons of 100m in diameter – about priority areas for wetland, grassland and woodland habitat networks.

The IHN model and habitat priorities mapping identifies a number of areas for habitat network management, enhancement and expansion across the wetland park. Some of these can be achieved on land in public ownership and management, or through habitat management and creation as part of planning agreements linked to development. Others will depend upon discussion and land management agreements with private landowners.

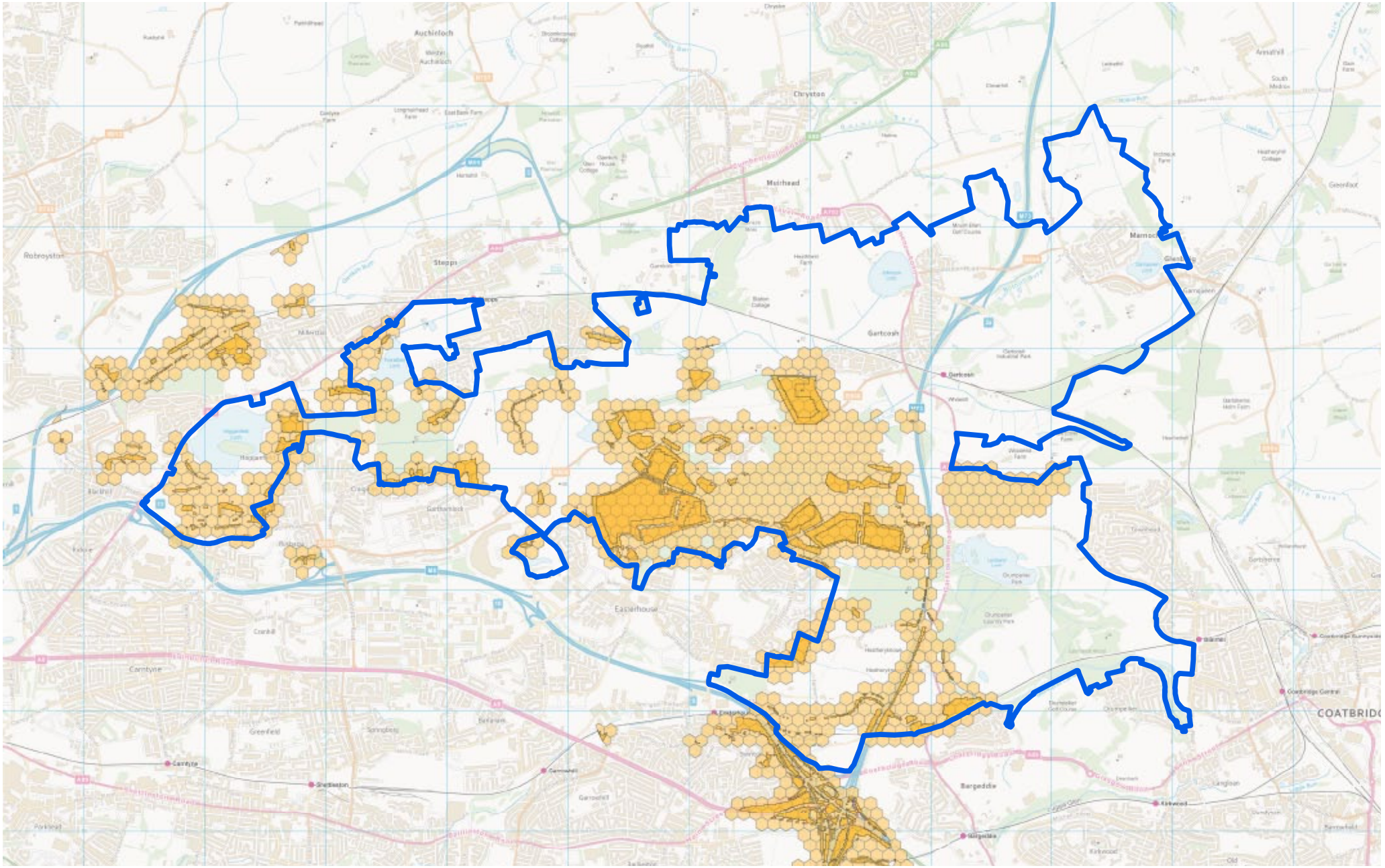


Fig. 6.02 - INH Model indicating grassland opportunities

Habitat enhancement

Grassland opportunities within the boundaries of the Seven Lochs Wetland Park
There are a number of key priority areas for enhancing and expanding grassland networks, although it is important to note that the map is partial because no grassland priority areas data is currently available for North Lanarkshire.

The principal priority area is around Bishop Loch, particularly linking existing grassland habitats both west of the Loch (around Gartloch Hospital) and East of the loch at Lochwood Farm and towards Commonhead Moss. Much of this land is in private ownership at present, and any habitat creation and enhancement would therefore need to be carried out in partnership with landowners. In the longer term there may be scope for further habitat enhancement and creation linked to planned development.

Another significant grassland priority area is to the south-east of Easterhouse, including links outwith the park along transport corridors. There is an opportunity to link grassland creation to planned development here, and to expand grassland habitats along motorway verges. Further west, there are opportunities to expand the grassland network at Hogganfield Park and around the fringes of Cardowan Moss, both of which are owned and managed by public bodies.

Protecting and enhancing existing wetland habitats is central to the wetland park vision. Action will focus on protecting and improving the conservation management of open water, reed bed and other marginal vegetation, and lowland raised bogs. Raised bogs in particular are a threatened habitat in central Scotland, and management will focus on preventing these sites from drying out to ensure they retain their unique character and wildlife.

There are also opportunities to improve grassland habitats to create a more connected network within the wetland park, with additional links to grassland habitats outwith the park. Key areas for enhancement are around Bishops Loch and along the M73 corridor. These areas are a mix of marginal farmland and abandoned / unmanaged land in private ownership, and partnerships with landowners are therefore important.

There is also a need for conservation management of both mature and recently planted woodland. Management of mature woodland will focus on removing invasive species and establishing a more diverse ground flora. Management of recently planted woodland will focus on ensuring that these areas fulfil their potential as attractive, diverse and wildlife rich woodlands.

Some habitat enhancement work will need to balance different habitat types. Cardowan Moss for example is a small remnant of raised bog, some of which, during the recent past, has been planted with trees. The sensitive removal of trees at the edge of the moss could help enhance and expand the raised bog habitat, creating stronger wetland habitat connections within this area.

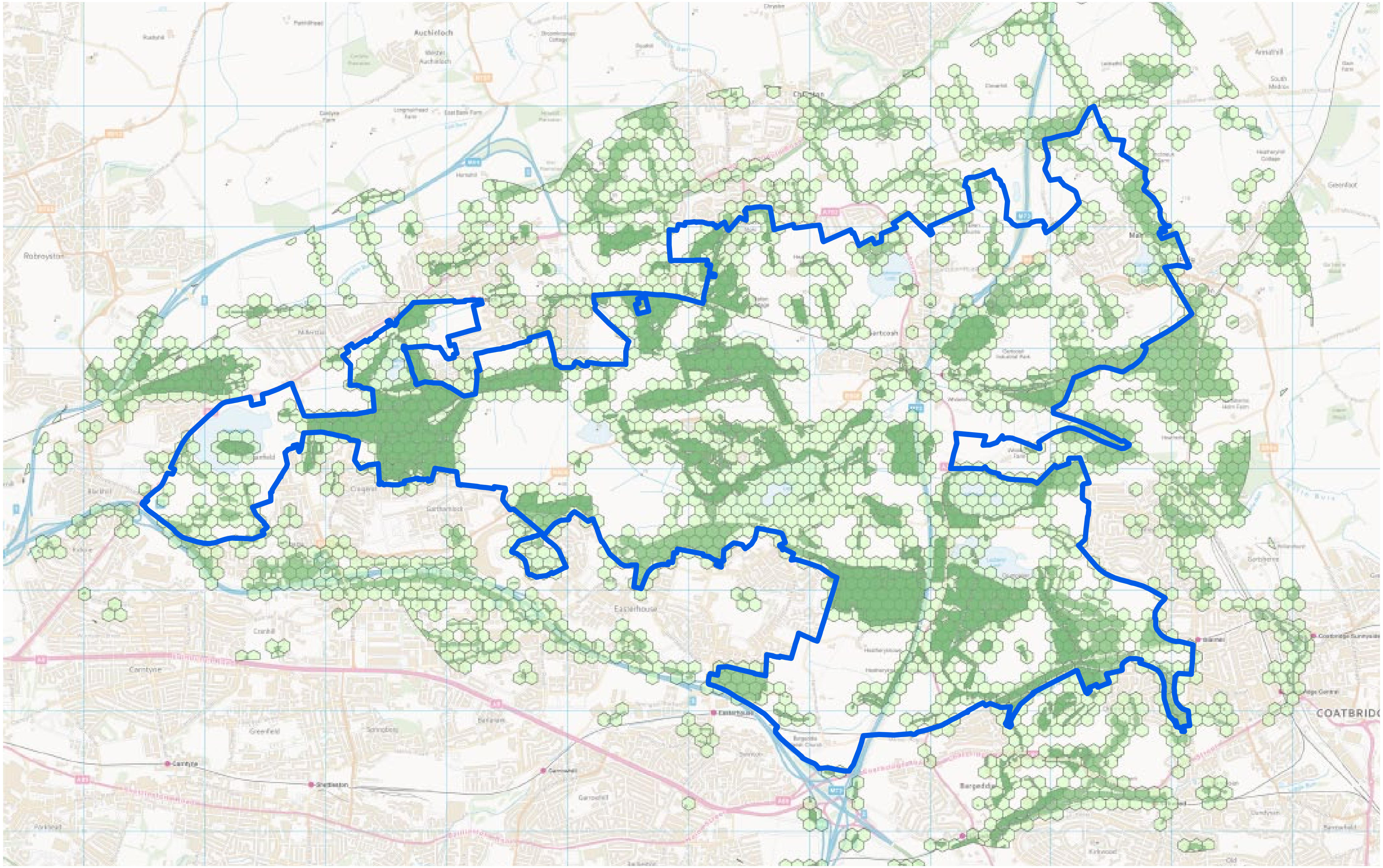


Fig. 6.03 - INH Model indicating woodland opportunities

Woodland opportunities within the boundaries of the Seven Lochs Wetland Park
Woodland priority areas are extensive, including many opportunities to link to existing woodland outwith the park boundary, including a significant opportunity for woodland connectivity along the M8 corridor. Again a high priority is to enhance woodland networks around Bishop Loch. It will be important to balance wetland, grassland and woodland opportunities in this area perhaps through the creation of wet woodland, scattered trees and restoration of hedgerows.

More broadly, the woodland priority areas tend to be on the edge of the wetland park, perhaps reflecting the higher, drier ground at the edge of the park. This offers an opportunity for new woodland planting and woodland management to help create attractive entrances, although this will be carried out sensitively to ensure any new woodland does not affect important views into the wetland core. It will also be important to match the species mix in any new woodland to the local conditions, and ensure a diversity of woodland types.

New habitat areas

Existing habitat networks across the wetland park will be enhanced and expanded through the creation of new woodlands, wetlands and grasslands. Analysis of existing networks has helped identify priority areas for habitat creation.

The creation of new wetland habitats through the heart of the site from Cardowan Moss to Bishop Loch, and eastwards towards Woodend and Lochend Lochs is a priority. Careful consideration will have to given to any habitat creation at Bishop Loch and Woodend Loch Sites of Special Scientific Interest (SSSI), including consultation with Scottish Natural Heritage. New wetland habitats and water bodies will also be discussed with SEPA and others to examine how they can contribute to surface water management and reducing flood risk.

Opportunities for grassland habitat creation are also centered on Bishop Loch, while opportunities for woodland habitat creation are extensive, including many opportunities to create links to woodland networks out-with the park. Scattered tree planting will help link existing woodland, and restoration and expansion of hedgerows, boundary planting and shelter belts will create new habitat corridors and enhance landscape character.

It will be important to examine opportunities to integrate new habitat creation with planned development in and around the park. The impact of planned development will be minimized by including habitat links as one of the elements of new, multi-functional green infrastructure within developments, and by working with developers to create new habitat areas which ensure connectivity around new development.

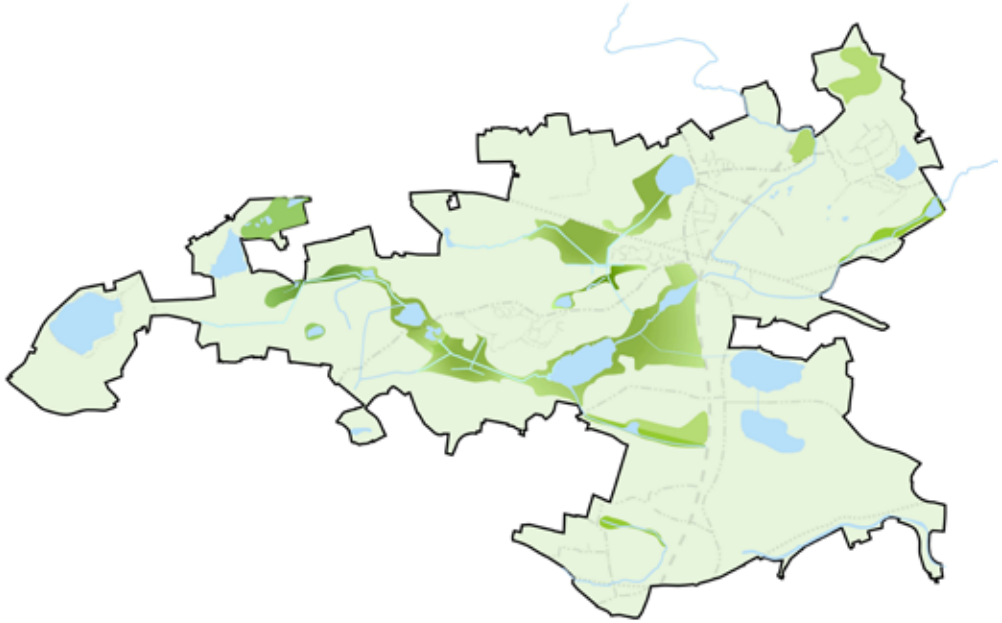


Fig. 6.04 Proposed wetland habitat areas

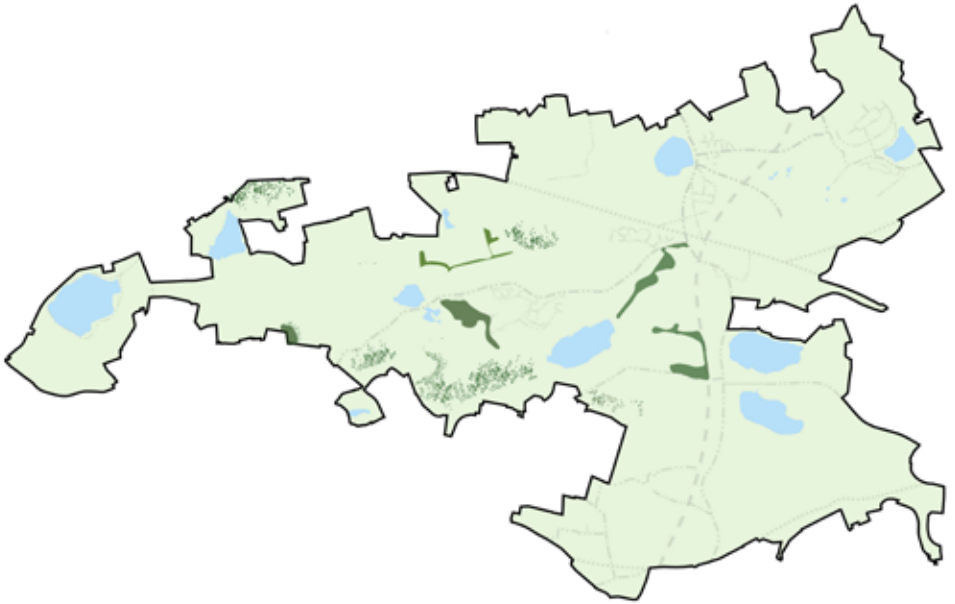


Fig. 6.05 Proposed woodland habitat areas

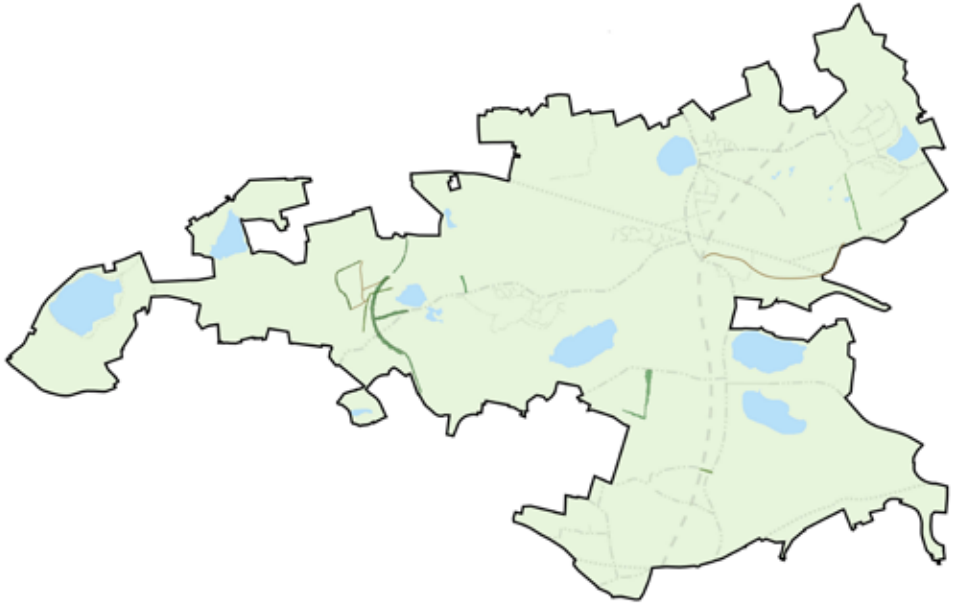


Fig. 6.06 Proposed hedgerows and boundary planting

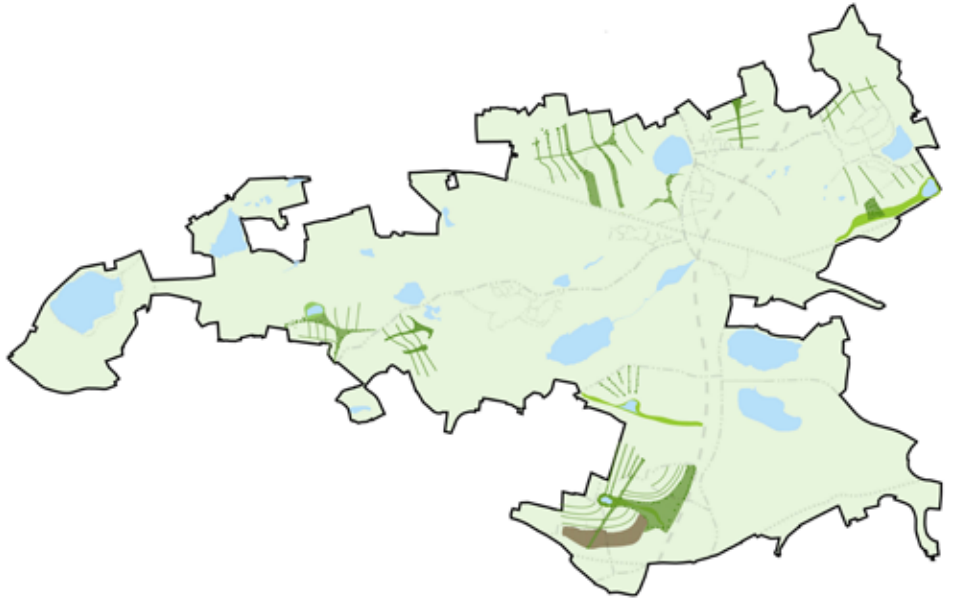


Fig. 6.07 Proposed CGA integrated green routes

Areas

6.04 Wetland Habitat areas:

Proposals to encourage wetland including reversing previous land drainage, creating wader scrapes, encouraging natural colonisation by wetland species and planting rushes and sedges where appropriate. New wetland habitat will also be created linked to surface water management features within new development.

6.05 Woodland habitat areas:

The woodland areas have been identified to provide a buffer between existing habitats and new development. They provide green corridors for species movement between habitats, reinforce existing landscape features, and will focus on broadleaved and wet woodland to reflect and reinstate the natural species mix for the area. This is particularly important around the Gartloch Hospital area where native woodland has been lost.

6.06 Hedgerows and boundary planting:

The reinstatement of hedgerows and boundary planting will have a crucial role in expanding habitat networks, as well as playing an important role in enhancing the experience and use of the park by visitors. Hedgerows and boundary planting will also be used to enhance the setting of new buildings, and screen transport corridors and other infrastructure. It will have an important role in the landscaping of planned development.

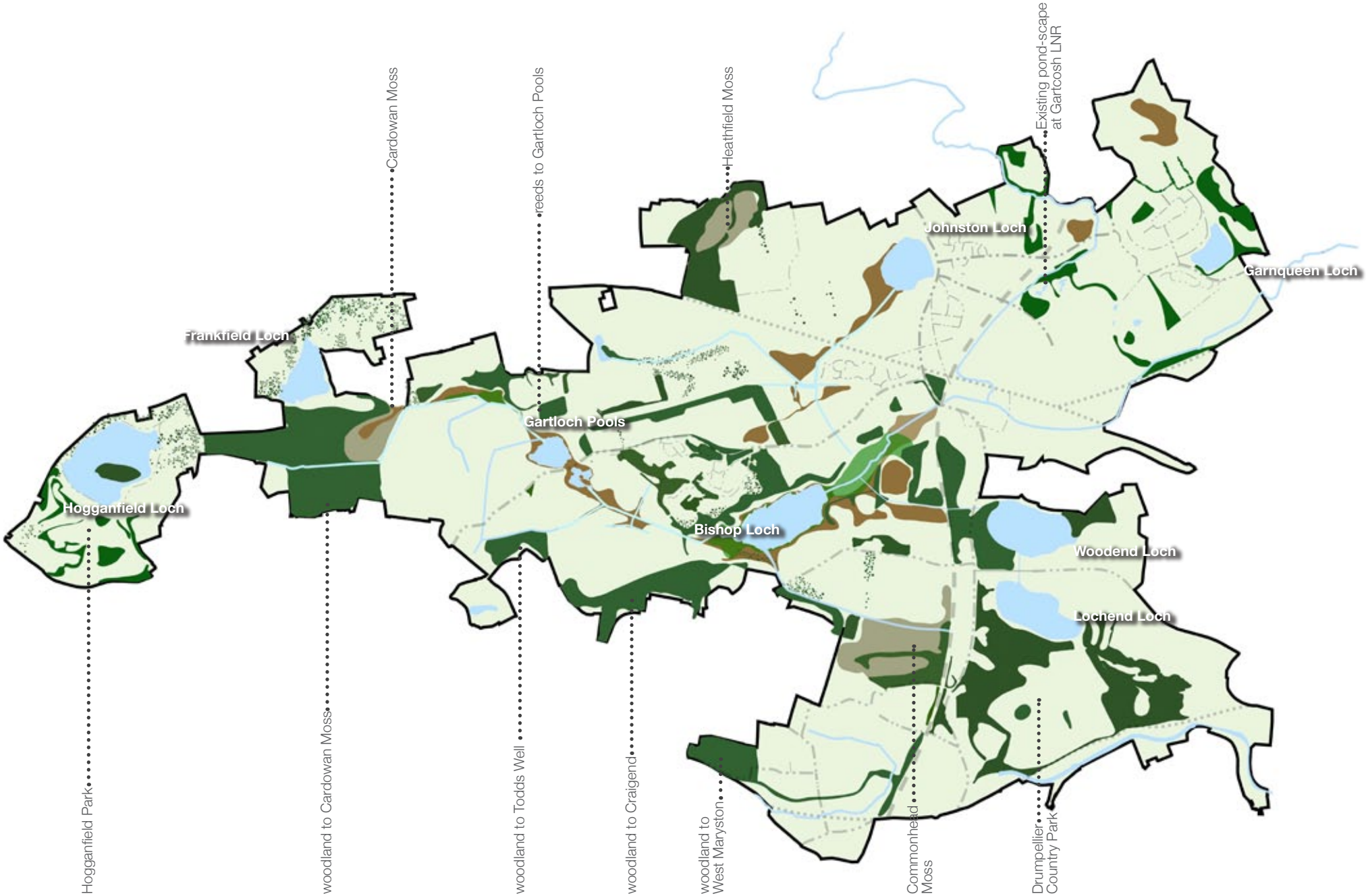
6.07 CGA integrated green routes:

Areas identified for new development must also contribute to habitat networks. Habitat fragmentation is the main threat to networks in the area, and the planning and design of new development must ensure that key habitat links within and around areas of development are maintained and enhanced. High quality design and integration of new habitat into development in combination with proposals for new habitat around developments will help the balance of community space and habitat enhancement.

New habitat areas

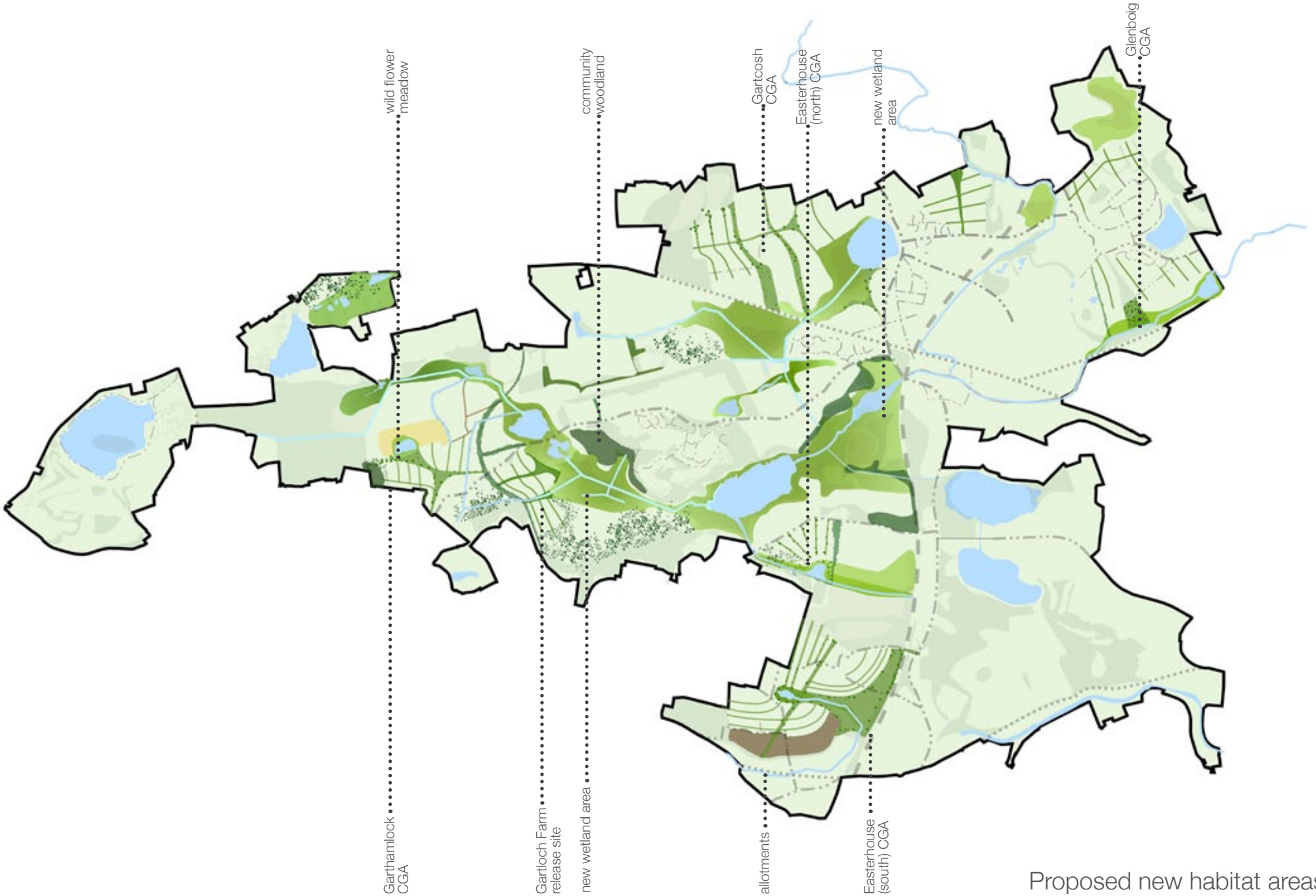
Existing habitat networks across the wetland park will be enhanced and expanded through the creation of new woodlands, wetlands and grasslands. Ongoing reference will be made to the IHN model to develop an optimum network of habitat areas. A range of mechanisms will be applied to support habitat management, improvement and creation, including funding for rural development, woodland expansion and restoration of the water environment, integrated green infrastructure and planning agreements linked to development, and partnerships with conservation and volunteering organisations.

Broad proposals for new habitat areas include strengthening wetland habitats through the core of the park, woodland creation and scattered tree planting to link existing woodland, and restoration and expansion of hedgerows and boundary planting to create new habitat corridors. All proposed habitat areas have been carefully considered to ensure that they are sensitive to and in keeping with the existing landscape character of the site.



Existing habitat areas

Fig. 6.08



Proposed new habitat areas

Fig. 6.09 Existing habitat shown with faded tone

07 Integrating development

New neighbourhoods within the Seven Lochs

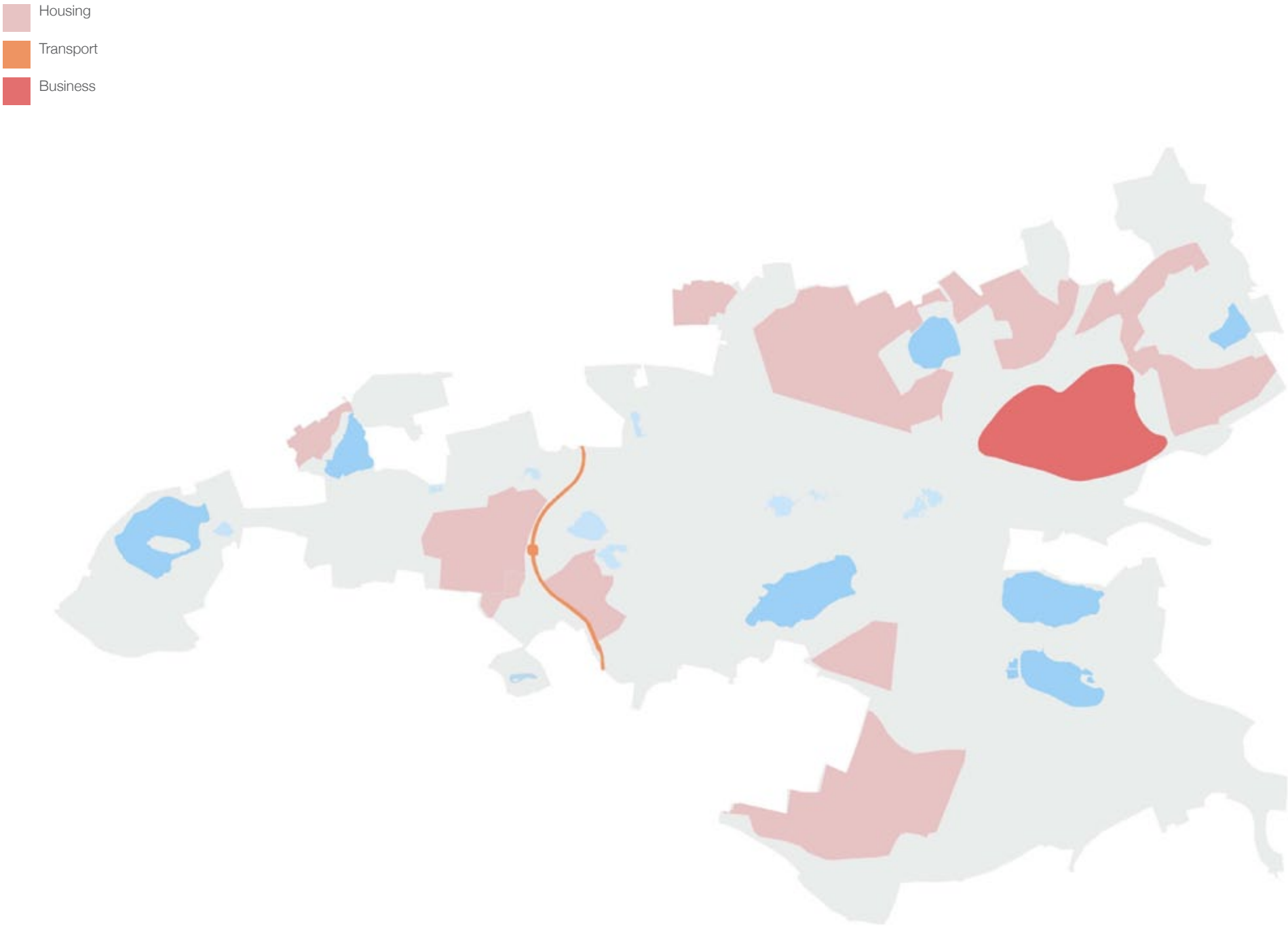


Fig. 7.01 Development Areas

Development proposals

Identified within the boundary of the proposed Seven Lochs Wetland Park are a number of community growth areas (CGAs). There is an ambition to provide over 4500 new homes within these areas, which are located within the boundaries of both Glasgow City Council and North Lanarkshire Council.

Following interpretation from the Integrated Habitat Network Model, these identified community growth areas were highlighted as areas of considerable opportunity for the growth and enhancement of habitat within the park. It is therefore essential that any development related to community growth is strategically integrated into the park, by acknowledging the sensitivity, location, landscape and character of each individual CGA. This is critical for achieving the holistic ambition of the park. Whilst funded by private developers, the inclusion of the CGAs within the wetland park will ensure that clear design guidelines for developers are set out from the start, with an ambition to create exemplar new housing which is fully integrated into the overall vision for the Seven Lochs Wetland Park. Furthermore, developer contributions will also be sought as a revenue source towards maintenance and management of the park facilities, and this requirement should form part of any agreement to develop the CGA areas.

The strategy for development within the wetland park focuses on an Integrating Green Infrastructure approach. This is a design technique that responds to the natural topography of the site, existing habitats and habitat connectivity, access networks and existing hydrological elements to identify opportunities to incorporate green infrastructure with multiple functions within developments. It makes use of swales, planted ‘green’ and ‘blue’ corridors and retention areas to manage surface water, but links paths, natural habitats, play areas and amenity spaces with these to ensure the benefits of green space and green networks are maximised.

Benefits of the strategy:
- reduction in flood risk
- access networks and accessible, attractive open green space
- enhancement / creation of habitat networks
- buffering between urban form and existing environment
- incorporation of sustainable construction techniques
- reduction in long term maintenance costs

This chapter proposes a strategy for the integration of major residential developments at:
- Garthamlock
- Easterhouse north
- Easterhouse south
- Gartcosh
- Glenboig
- Gartloch Farm

There are other smaller housing developments within and around the wetland park, and a similar approach to planning and design will be adopted for these areas. An integrating green infrastructure approach will also be taken to further development of the Gartcosh Business Interchange.

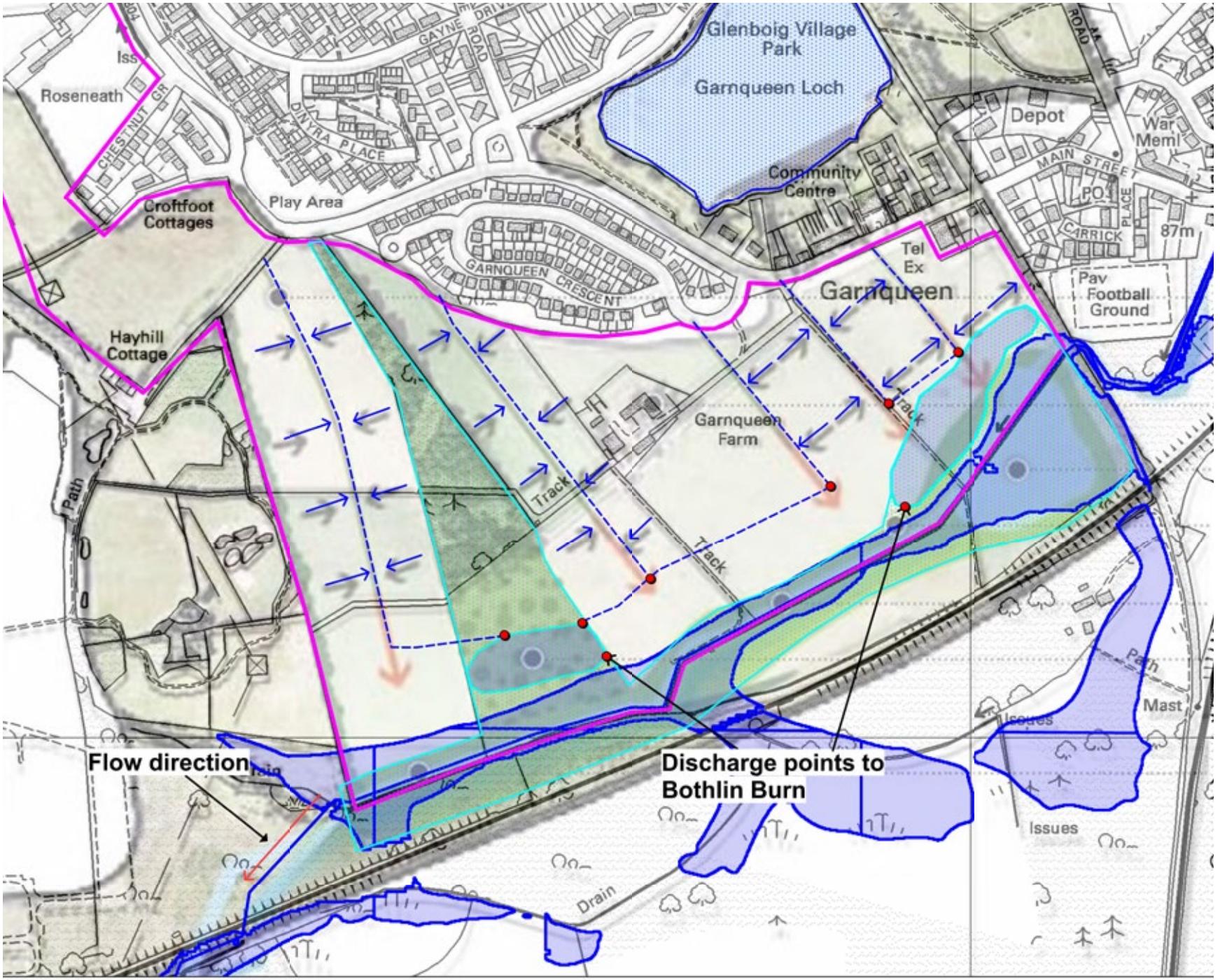


Fig. 7.02 Example of surface water management strategy

Surface Water Management Strategy – key principles

- Surface water management should go beyond minimum legislative requirements.

- Surface water should be kept separate and managed on the surface.

- There should be no increased flood probability and associated risk form the surface water management system.

- Environmental benefit and enhancement should be maximised.

- In-curtilage space should be retained as permeable surface to minimise runoff.

- 'Green street' layouts which integrate habitat and sustainable drainage should be promoted.

- Amenity and aesthetic qualities of surface water management features should be maximised.

- Appropriate adoption and maintenance should be in place.

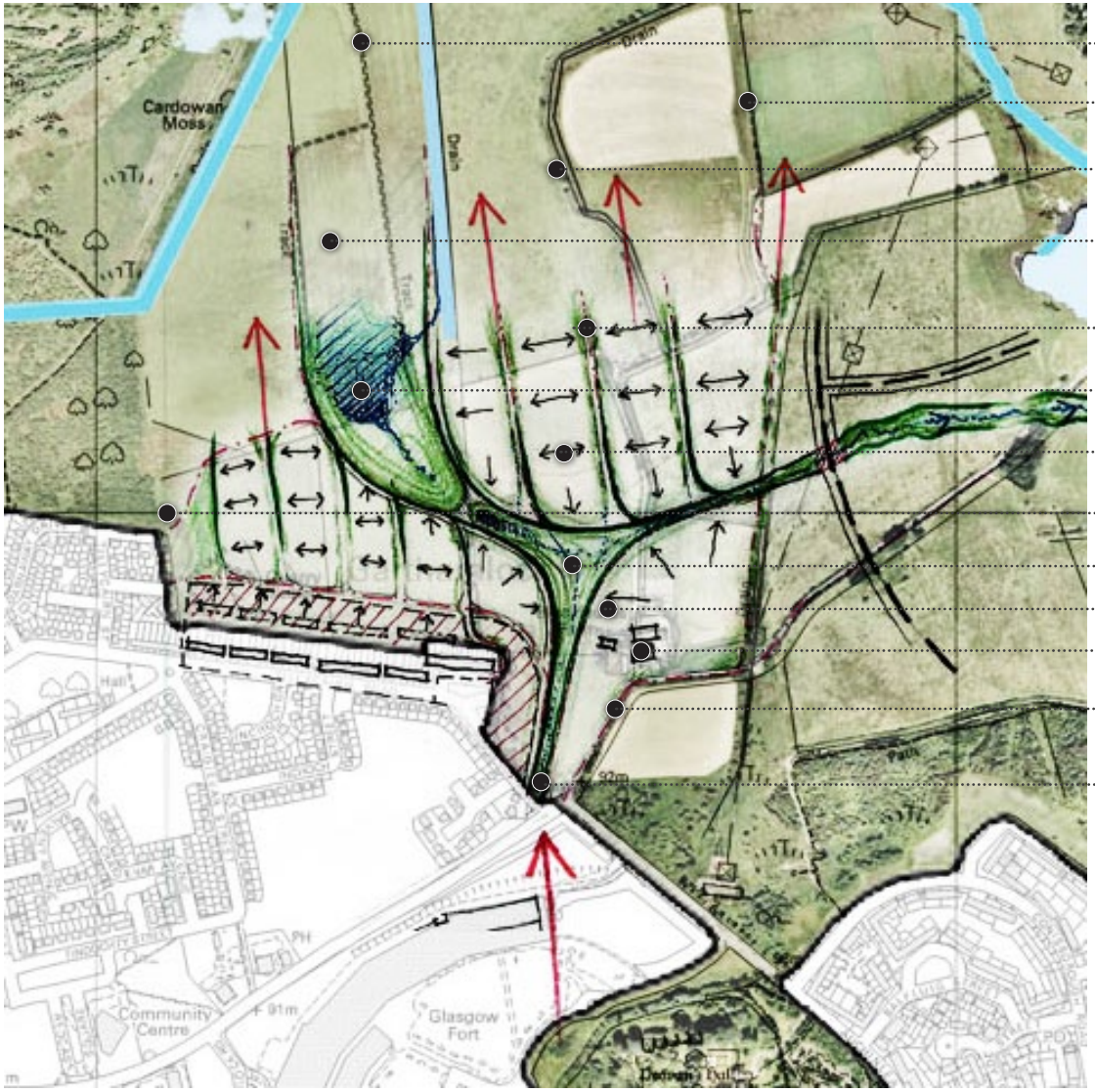
Strategic water management

Managing and improving water quality and quantity, both within and downstream of the wetland park, is a key component of the park strategy. Wetland habitats in the area are of national importance, and the area's complex hydrology is one of the most significant development issues. A detailed hydrological model has been developed and used to inform a Hydrological study examining flood risk and future drainage requirements, and propose a Surface Water Management Strategy for the area.

Surface water management is a key component of the wetland park vision and strategy, and its links to wider water management. The stated objectives of the Metropolitan Glasgow Strategic Drainage Partnership (MGSDP) are: flood risk reduction; river water quality improvement; enabling economic development; habitat improvement; and integrated investment planning. The wetland park can contribute to delivery on all of these objectives.

Current legislation requires new development to attenuate future runoff to undeveloped 'greenfield' runoff rates and mitigate future climate change effects to prevent any increased downstream flood risk. Surface water management within the wetland park will go beyond this minimum requirement by taking a more holistic approach which aims to balance environmental constraints and opportunities and link surface water management and Sustainable Urban Drainage Systems (SuDS) to the creation of multi-functional green networks.

Surface water drainage, flood attenuation and new SuDS features within the park will be considered not just as surface water management tools but as assets with a broader value to delivering the wetland park vision. Natural drainage will be restored where practicable, and new naturalistic features will be created to link new development to the surrounding landscape, enhance habitat networks and facilitate recreation and access.



tertiary route network connecting CGA with principal route

hedgerows replanted to enhance habitat network

land drains broadened for enhanced habitat network and flood prevention

community leisure green space / playing field

green fingers: planted swales and pedestrian access lining street layout

swale route culminating in retention pond and community wet meadow

quality housing with private garden space

native woodland planting of Garthamlock quarry for extended habitat network

focal point: community green space

front facing housing onto community green space

Blackfaulds farm house retained

Gartloch Road realignment- redundant section becomes cycle route

planted swale network forming 'green street' layout and conveyance routes: integrates habitat and sustainable urban drainage networks while providing new pedestrian access routes

Fig. 7.03 Garthamlock CGA

Fig. 7.04 planted swale, Upton, Northampton

Fig. 7.05 enhanced land drain, Worcestershire

Fig. 7.06 wild flower meadow, St. Helens

Garthamlock community growth area

Area: 195,718 sq metres (19.6 ha)
Density: 23 housing units per hectare
Estimated number of new housing units: 374

Currently a farm under an agricultural tenancy.

The plan places three housing plots at the three highest points on the site. Conveyance routes form green fingers that determine street formations and spread into the wetland park environment for pedestrian and habitat corridors.

An arterial swale route connects all three proposed areas of housing with a community green space, which also acts as a retention storage area. The network utilises existing land drains and culminates in a community wetland, with a retention pond and wild flower meadow.

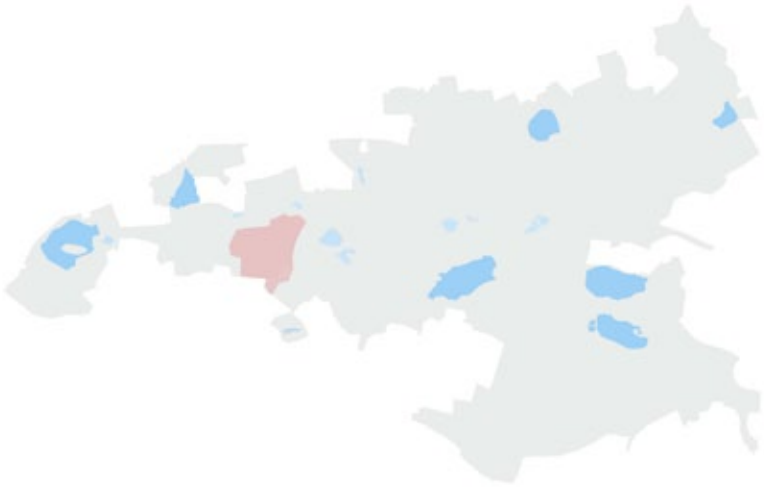


Fig. 7.07 Garthamlock community growth area highlighted in red

planted swale network forming 'green street' layout and conveyance routes: integrates habitat and sustainable urban drainage networks while providing new pedestrian access routes

hedgerows replanted to enhance habitat network

quality housing with private garden space

main access from Lochend Road

green fingers: soft landscaping and pedestrian access lining street layout

community wet woodland to appease flooding from land drain

community green space

land drains broadened for enhanced habitat network and flood prevention

swale routes culminating in wet meadow, and retention pond below flood plain

area to be developed as additional wetland and grassland habitat

access to core route of wetland park

Fig. 7.08 Easterhouse (north) CGA

Fig. 7.09 swale ‘green street’, Sweden

Fig. 7.10 community garden, Tramway, Glasgow

Fig. 7.11 retention pond

Easterhouse community growth area (north)

Area: 100,402 sq metres (10.4 ha)
Density: 23 housing units per hectare
Estimated number of new housing units: 230

The area is currently fallow agricultural land.

Housing and a ‘green street’ layout are accessed from the existing Lochend Road via conveyance routes that run down hill, towards the natural flood plain. This area is landscaped to become a community wetland with a retention pond. This serves as a community focal point and recreational green space.

An existing land drain is broadened. This together with an existing collection of mature trees, forms a new pedestrian and habitat corridor, which is integrated into the wetland park core route.

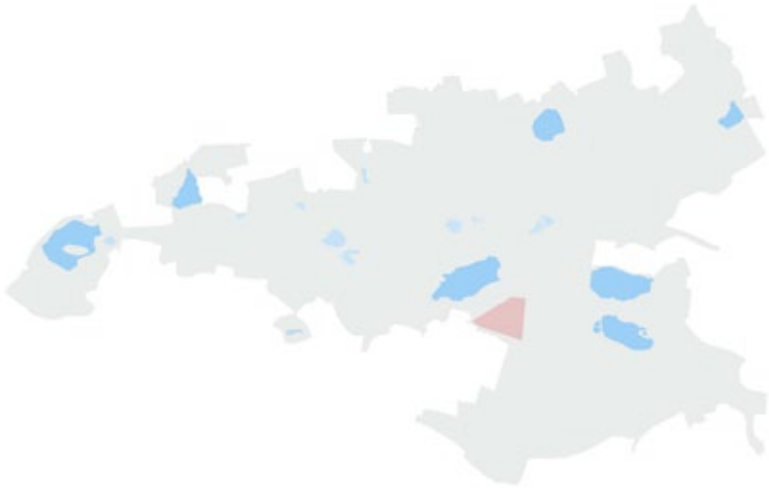
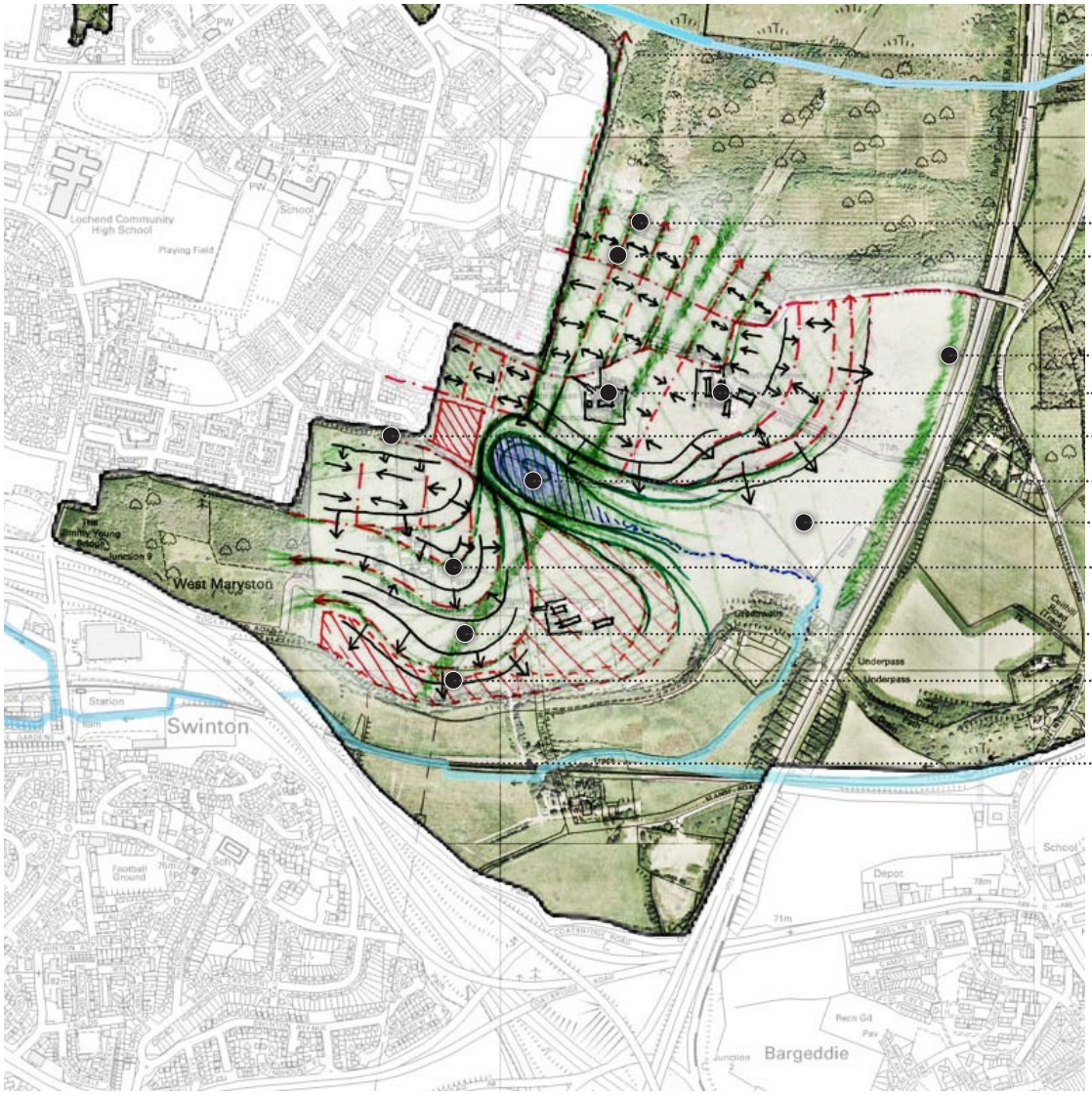


Fig. 7.12 Easterhouse community growth area (north) highlighted in red



pedestrian access to core route of wetland park

quality housing with private garden space

planted swale network, forming 'green street' layout and conveyance routes:
integrates habitat and sustainable urban drainage networks
whilst providing new pedestrian access routes

soft landscaping / planting to provide a green buffer to motorway

Commonhead and Heatheryknowe farm developed into community feature blocks

existing infrastructure and connections for site access

swale network culminating in soft landscaped retention pond below flood plain

community green space: wet meadow below flood plain

site layout stepped and plateaued for housing to follow topography

pylon network- planted to provide green corridor: new habitat / pedestrian route

allotments gardens

water feature to form edge of allotment along route of monklands canal

water feature to form edge of allotment along route of monklands canal

Fig. 7.13 Easterhouse (south) CGA

Fig. 7.14 community green space, Sheffield

Fig. 7.15 swale ‘green street’, Malmo, Sweden

Fig. 7.16 allotments, Berwick-Upon-Tweed

Easterhouse community growth area (south)

Area: 488,264 sq metres (48.8 ha)
Density: 23 housing units per hectare
Estimated number of new housing units: 1123

The area is currently a mix of active and abandoned agricultural land, with a network of electricity pylons cutting through its centre.

Housing is separated into two plots, connected by a community green space at the lowest point, which will also provide a retention area for flooding. Swales and green fingers create pedestrian and habitat routes through the site, and into the wetland park environment. These fingers include a newly planted and landscaped pylon network that connect public spaces as well as habitats. Allotments for local community use provide a positive health focused addition to the neighbourhood and a potential extension to proposals for gardens associated with Blairtummock House.

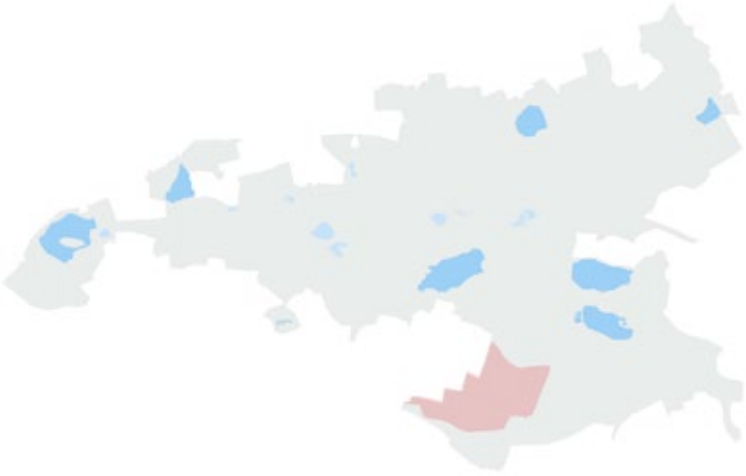


Fig. 7.17 Easterhouse community growth area (south) highlighted in red

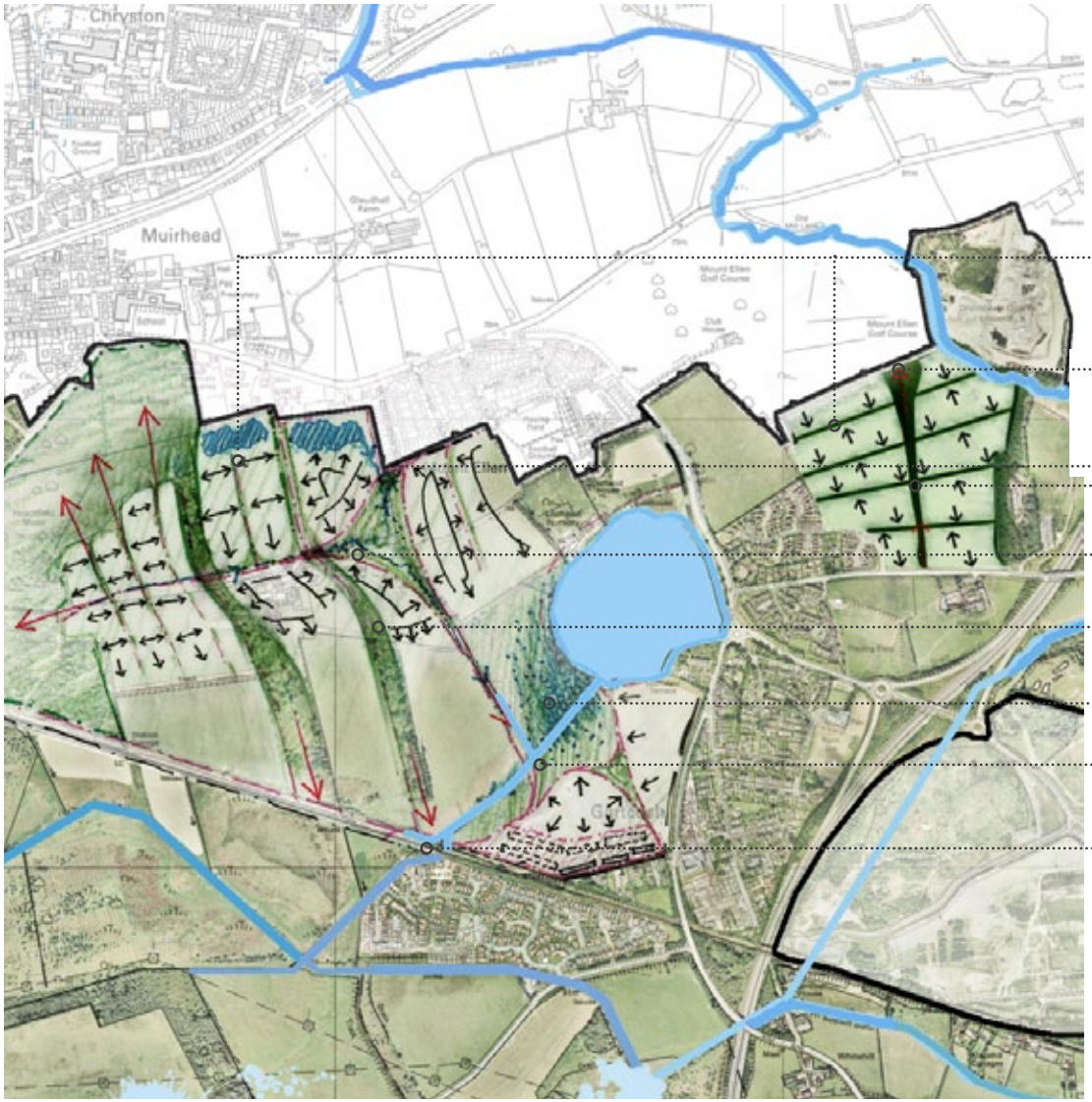


Fig. 7.18 Gartcosh CGA

Fig. 7.19 habitat / pedestrian route, Drumpellier

Fig. 7.20 community wetland garden, Harrogate

Fig. 7.21 swale, Bristol Business Park

Gartcosh community growth area

Area: 1,271,884 sq metres (127.2 ha)
Density: Approximately 25 housing units per hectare
Estimated number of new housing units: Approximately 3180

Land is currently agricultural grassland.

Proposed housing is generally on higher ground at a distance from Johnston Loch. A community wetland acts as a focal point and as a retention area for flooding.

Conveyance routes providing new pedestrian and habitat corridors that utilise existing land drains and extensions of existing wooded habitats, stem from the housing into the community wetland. Here, all routes converge to a core path and underpass, connecting the Gartcosh community to the wetland park.

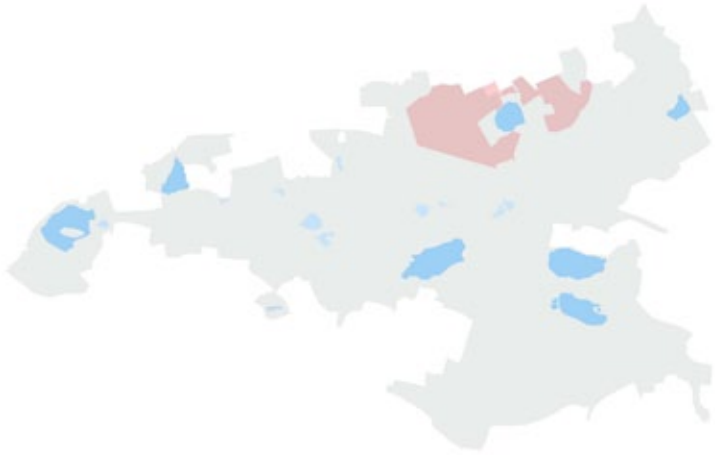
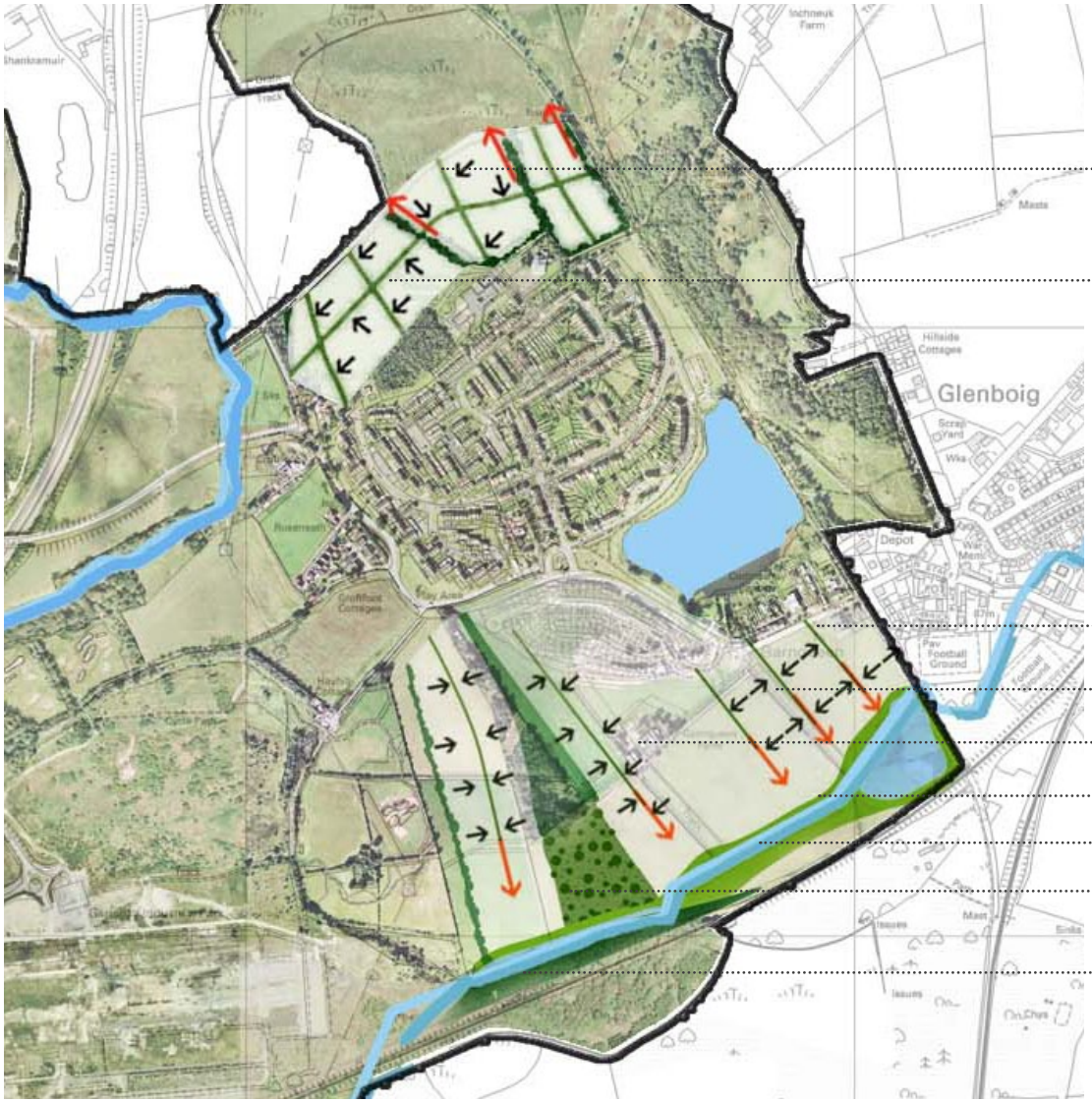


Fig. 7.22 Gartcosh community growth area highlighted in red



planted swale network, forming 'green street' layout and conveyance routes: integrates habitat and sustainable urban drainage networks whilst providing new pedestrian access routes

quality housing with private garden space

swale network culminating in retention pond below flood plain with pond-scape link for amphibian movement

quality housing with private garden space

Garnqueen farm house retained to become community feature block

soft landscaped community wetland

linear retention pond to edge of flood plain along new pedestrian route

native woodland extended to site boundary for enhanced habitat network and new pedestrian route into wetland park

land drains broadened for enhanced habitat, network flood prevention and area of enhanced wetland

Fig. 7.23 Gartcosh CGA

Fig. 7.24 retention pond, Malmo, Sweden

Fig. 7.25 habitat/ pedestrian route, Amsterdam

Fig. 7.26 swale and retention pond, Malmo, Sweden

Glenboig community growth area

Area: 476,531 sq metres (47.6ha)
Density: Approximately 25 housing units per hectare
Estimated number of new housing units: Approximately 1190

Land is currently agricultural grassland.

Housing and a green street layout flow downhill, following the existing topography of the site via swales and conveyance routes. These routes, spread along the site, utilise existing land drains and extensions of existing habitat areas, and culminate in community wetland and retention ponds. The ponds and wetlands create new pedestrian and habitat networks, as well as providing a flooding buffer for the Bothlin Burn. This will reduce drainage flow and flood risk for communities to the north of the site, such as Kirkintilloch.

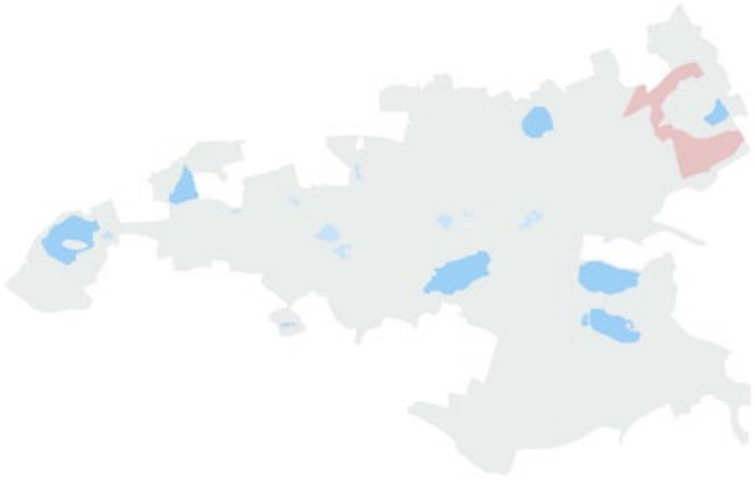


Fig. 7.27 Glenboig community growth area highlighted in red

proposed traffic bridge over Bothlin Burn: to allow uninterrupted passage of Bothlin Burn / habitat networks / pedestrian boardwalk which form part of wetland park principal route

hedgerow planting along perimeter of anticipated road for extended habitat network and green buffer to wetland park

quality housing with private garden space

swale network culminating in community wetland below flood plain

land drains broadened and integrated into swale network, forming 'green street' layout and conveyance routes: integrates habitat and sustainable urban drainage networks whilst providing new pedestrian access routes

area to the north of Craigend Wood sparse woodland leading into area managed as grassland

Fig. 7.28 Gartloch Pools private development

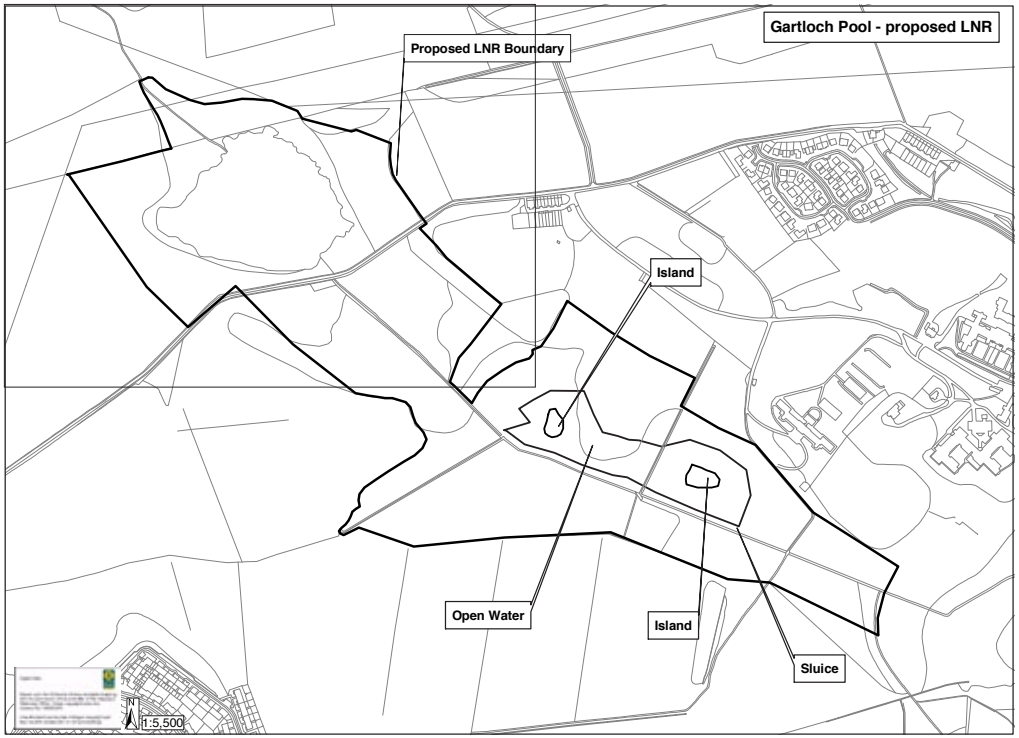


Fig. 7.29 Proposed Local Nature Reserve

Gartloch Farm - private development

Area: 157,343 sq metres (15.7ha)
Density: Approximately 19 housing units per hectare
Estimated number of new housing units: Approximately 300

Currently fallow agricultural land.

Glasgow City Council has indicated it is minded to grant planning permission for 300 houses, subject to a Section 75 Agreement linked to the funding of the southern section of the proposed Easterhouse Regeneration Route (ERR) and creation of a new Local Nature Reserve (LNR) at Gartloch Pools.

As part of the masterplanning and visioning study the site has been revisited in order to identify opportunities to integrate the development into the park. There is opportunity for a swale network to feed into a community wetland formed in the Gartloch Pools floodplain. These swale networks would form green / blue routes, doubling as access networks into the park.

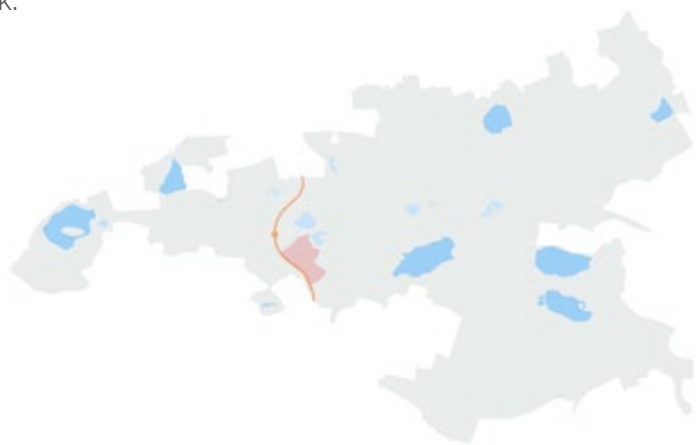


Fig. 7.30 Private developments highlighted in orange

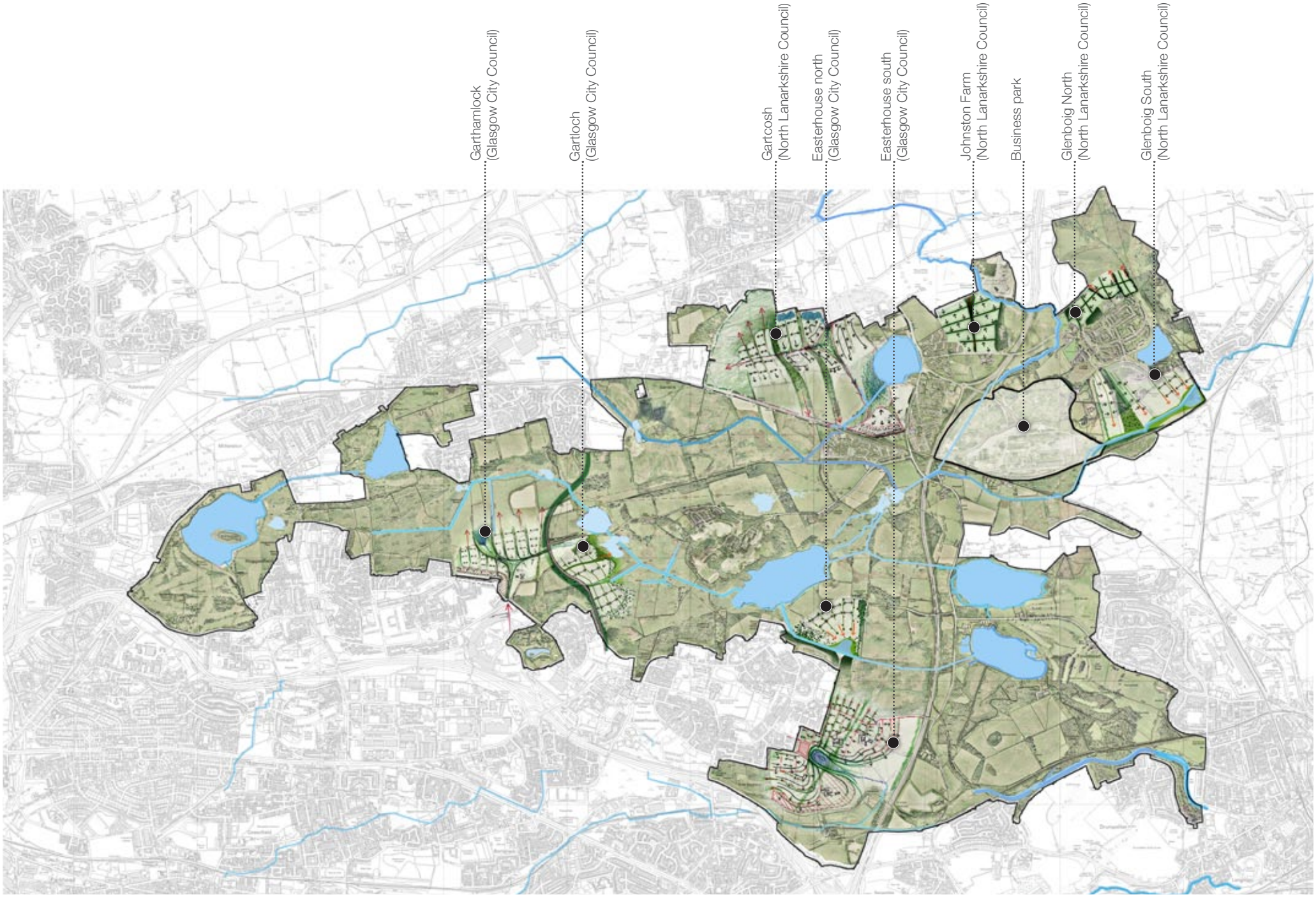


Fig. 7.31 Development areas

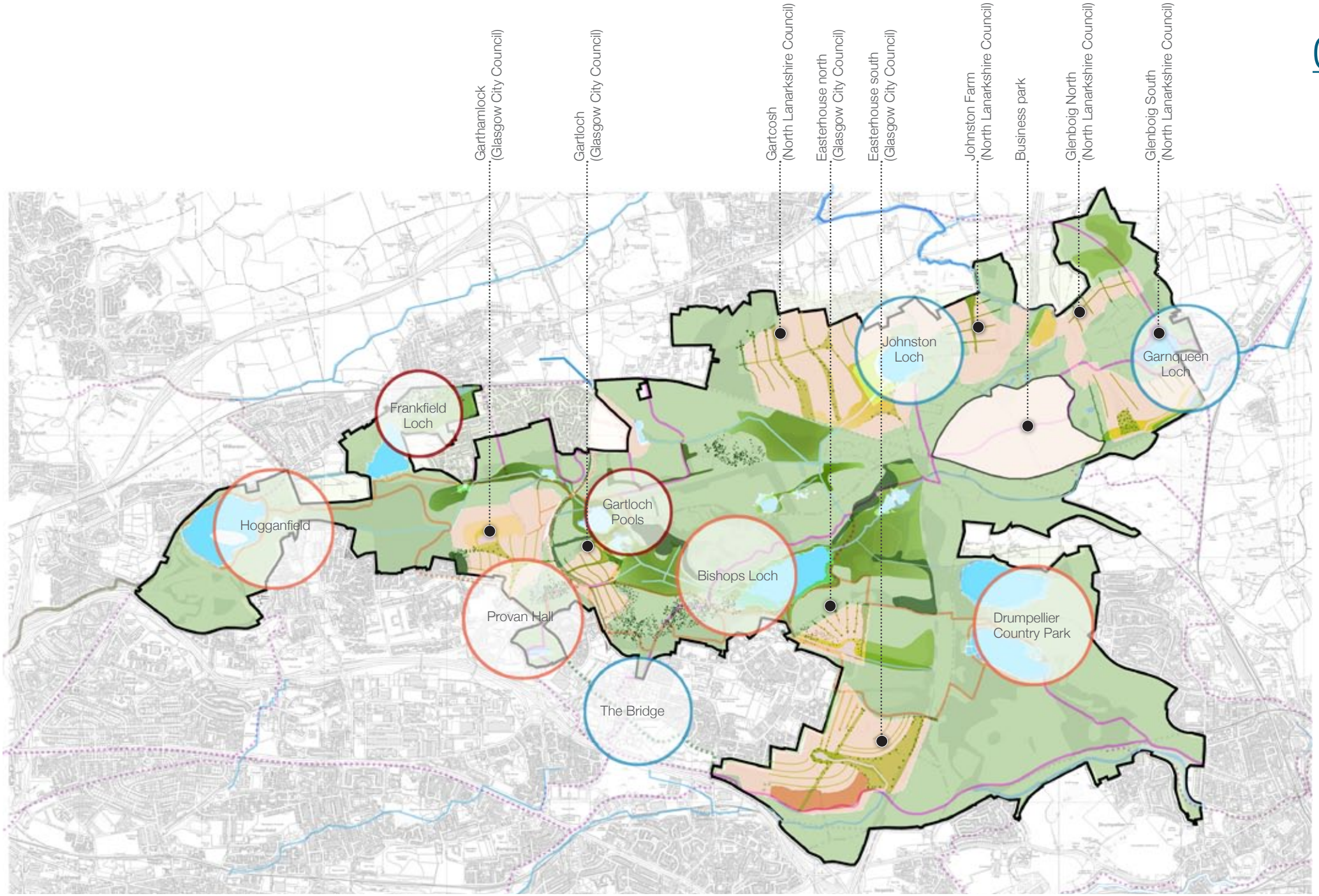


Fig. 7.32 Development areas in relation to visitor gateways and recreation sites.

08 Detailed Proposals

Gateways, zones and communities

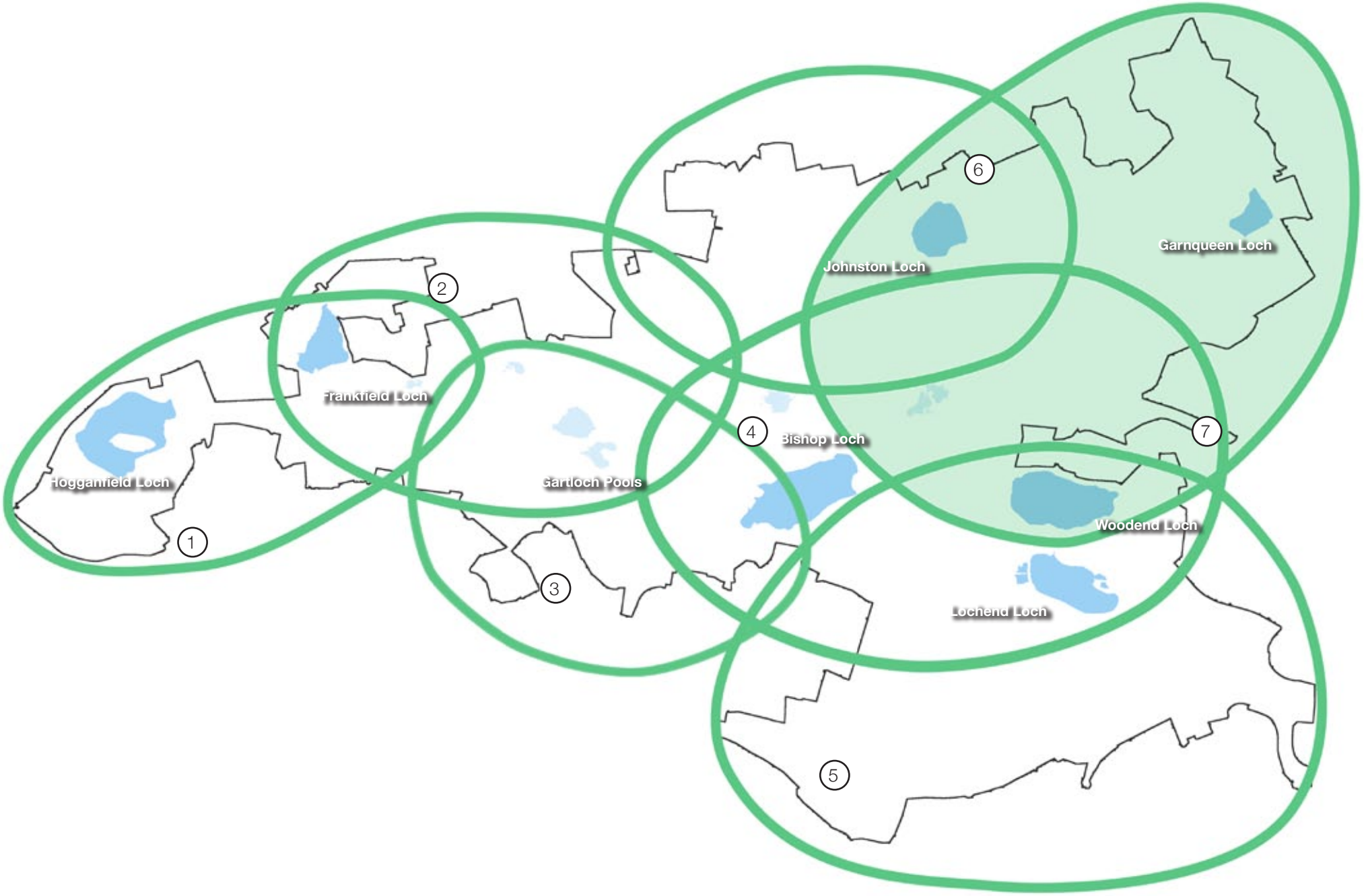


Fig. 8.01 Zone strategy

The seven zones

1. Hogganfield Park
2. Frankfield Loch, Stepps and Cardowan Moss
3. Gartloch Pools and Provan Hall
4. Bishop Loch
5. Drumpellier Country Park
6. Johnston Loch and Gartcosh
7. Glenboig and Garnqueen Loch

Defining park zones

The Seven Lochs Wetland Park is primarily focused around the lochs and wetlands that lie within the boundaries of the proposed park. The seven lochs help to define seven 'zones' within the park, which relate to one or more of the surrounding communities and help to create an identity for the park, as a series of neighbourhood related amenities.

The proposed principal route through the Seven Lochs Wetland Park, from Hogganfield Park to Drumpellier Country Park, is a distance of 7.5 kilometres. Whilst the principal route forms the spine of the park, only a small proportion of visitors will undertake the entire route as a single journey. Local users are more likely to use more circular routes which allow them to return to the starting point of their journey. A dog walker from Easterhouse, for example, may walk around the banks of Bishop Loch on a daily basis.

The overall vision proposes a series of seven interrelated zones within the Seven Lochs Wetland Park. These zones are designed to divide the large expanse of the park into smaller areas associated with existing communities in and around the park. They aim to provide both residents and visitors with direct access to areas of historical and ecological importance, on a more local level. The zones work in conjunction with the overall park strategy, and encourage people to follow routes which connect between adjacent zones, enabling and encouraging longer journeys across the whole of the wetland park.

Fig. 8.02 Zone locations

Zone 1 - Hogganfield Park
Zone 2 - Frankfield Loch, Stepps and Cardowan Moss
Zone 3 - Gartloch Pools and Provan Hall
Zone 4 - Bishop Loch
Zone 5 - Drumpellier Country Park
Zone 6 - Johnston Loch and Gartcosh
Zone 7 - Glenboig and Garnqueen Loch
Note: Zones overlap to support integration of adjacent zones.

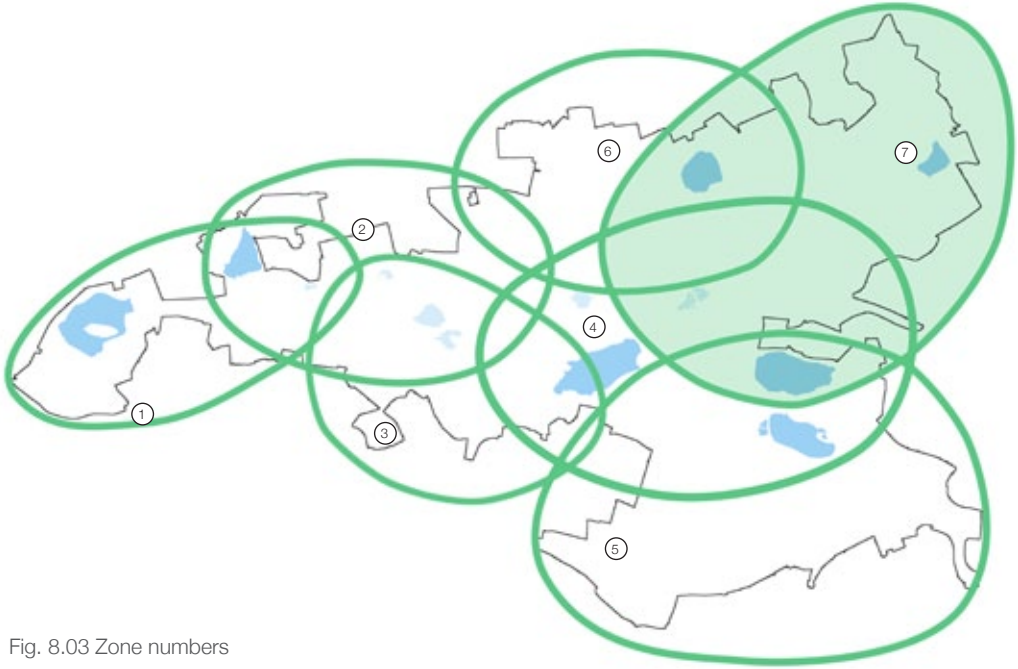


Fig. 8.03 Zone numbers

Proposals by zone

By identifying zones which are related to the way the park is used by local residents on a more daily basis, it is hoped that community engagement with the proposed Seven Lochs Wetland Park will be strengthened, engendering a sense of ownership, and encouraging the long term sustainability of the overall park.

Each zone includes one of the Seven Lochs, and one of the proposed seven gateways into the park. They are designed to cater for park users such as local families, dog walkers and schools, while also providing opportunities for visitors from further afield. It is anticipated that a circular walk around each of the seven clusters would take between half an hour to an hour to complete. They ensure all residents can access an existing, refurbished, or new community facility, helping to create a link between community and the park.

Gateways such as the existing Gartcosh Community Centre, the proposed Glenboig Life Centre and The Bridge in Easterhouse are specifically community orientated. It is intended that these community resources will enhance community links with the park, building a relationship that encourages community interaction with the park and an appreciation of the educational and recreational benefits that it can provide.

Fig. 8.04 Proposed new visitor facility to Hogganfield Park, with vertical wayfinding tower and new pontoon

Hogganfield Park

- Zone 1

Hogganfield Park forms an important gateway to the Seven Lochs Wetland Park for the residents of Glasgow, and lies only 5 kilometres from the city centre. There are strong links from Alexandra Park in Dennistoun, with existing pedestrian and cycle paths extending out from the city centre, along the culverted route of the historic Molendinar Burn to its source, Hogganfield Loch. Visitors to Hogganfield Park tend to undertake a circular route around the banks of the loch. This route is particularly popular with visitors with small children, cyclists, dog walkers and joggers. The park is well used and well loved by local residents for a number of activities.

Hogganfield Park has been in public ownership since 1924 and includes Lethamhill Golf Course. A tea room was built adjacent to the main gates into the park in the 1930s, together with a boat house and pontoon. These were subsequently demolished. The loch and the surrounding area were declared a Local Nature Reserve in 1998.

As part of the vision for the wetland park, a new gateway visitor facility and vertical feature, signalling the main entrance, is proposed to the southern edge of the loch. This is to incorporate changing facilities and toilets, a small cafe, and a new pontoon in the loch.

Fig. 8.05 Zone 1

Fig. 8.06 Hogganfield Loch looking west

Fig. 8.07 Hogganfield Loch looking east

Fig. 8.08 Proposed Frankfield viewing platform

Frankfield Loch, Stepps and Cardowan Moss

- Zone 2

To the eastern edge of Hogganfield Park there is the potential for a strong connection across Avenue End Road into an area of woodland to the west of Cardowan Moss which is managed by the Forestry Commission Scotland. This area has an existing network of well maintained core paths that are frequently used by local residents. The principal route to this part of the wetland park provides access to Frankfield Loch, with views across the loch afforded by the proposed new viewing platform.

New housing is currently being built around two edges of Frankfield Loch. As part of the development, the remaining area around the loch will be handed over to public ownership and designated a Local Nature Reserve (LNR). A new circular pathway is to be constructed, incorporating sections of boardwalk to protect ecologically sensitive areas. This will allow visitors and local residents from Stepps direct access to the wetland park, whilst a new footbridge will allow people to cross the source of the Molendinar Burn situated to the west of the loch.

To the north of Frankfield Loch an area of wet woodland forms part of the proposed LNR. This borders onto Stepps railway station and provides visitors travelling by rail with an immediate connection into the park.

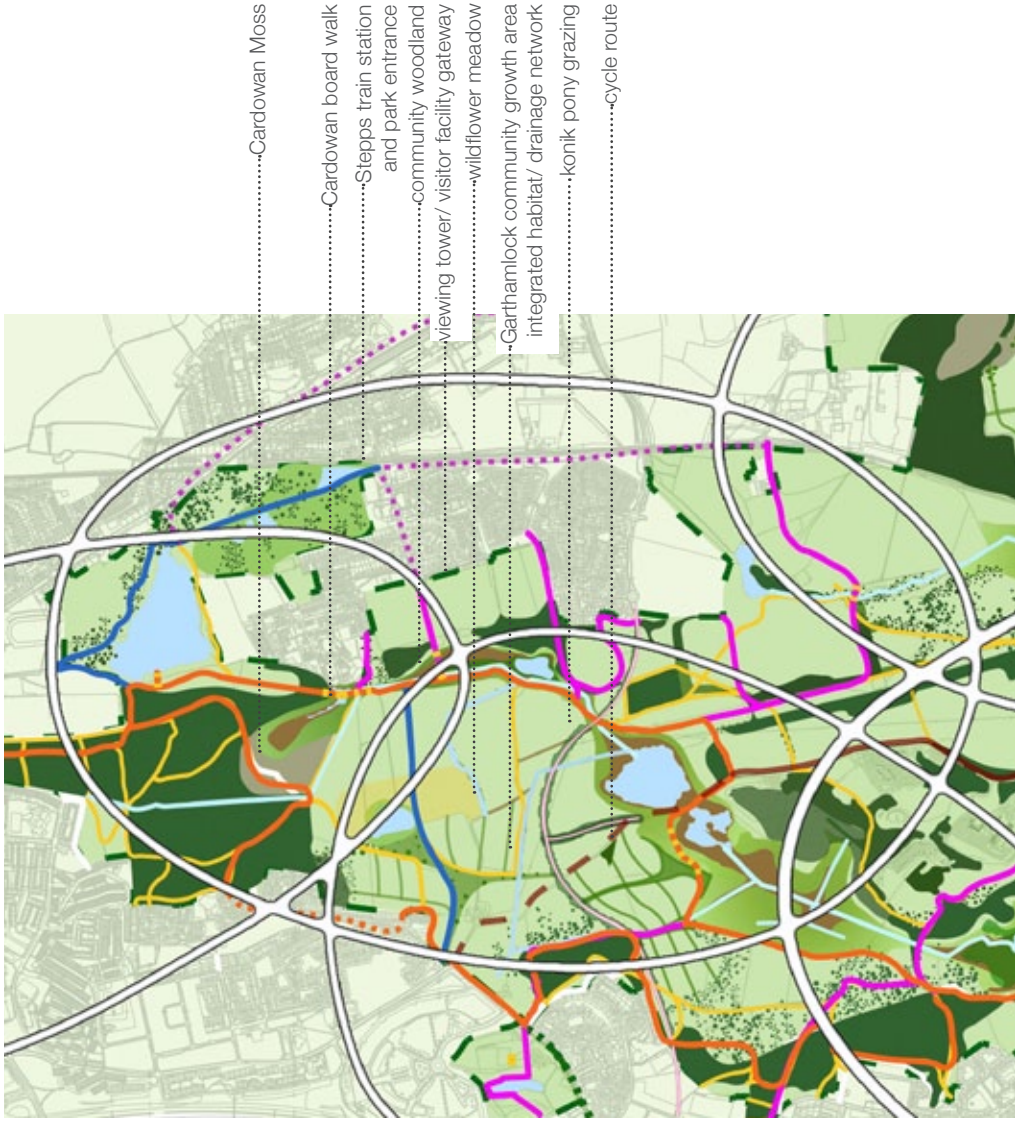


Fig. 8.09 Zone 2

Fig. 8.10 Frankfield Loch looking west

Fig. 8.11 Frankfield Loch looking east

Fig. 8.12 Proposed Stepps gateway visitor facility and viewing tower, with associated refurbished retail units

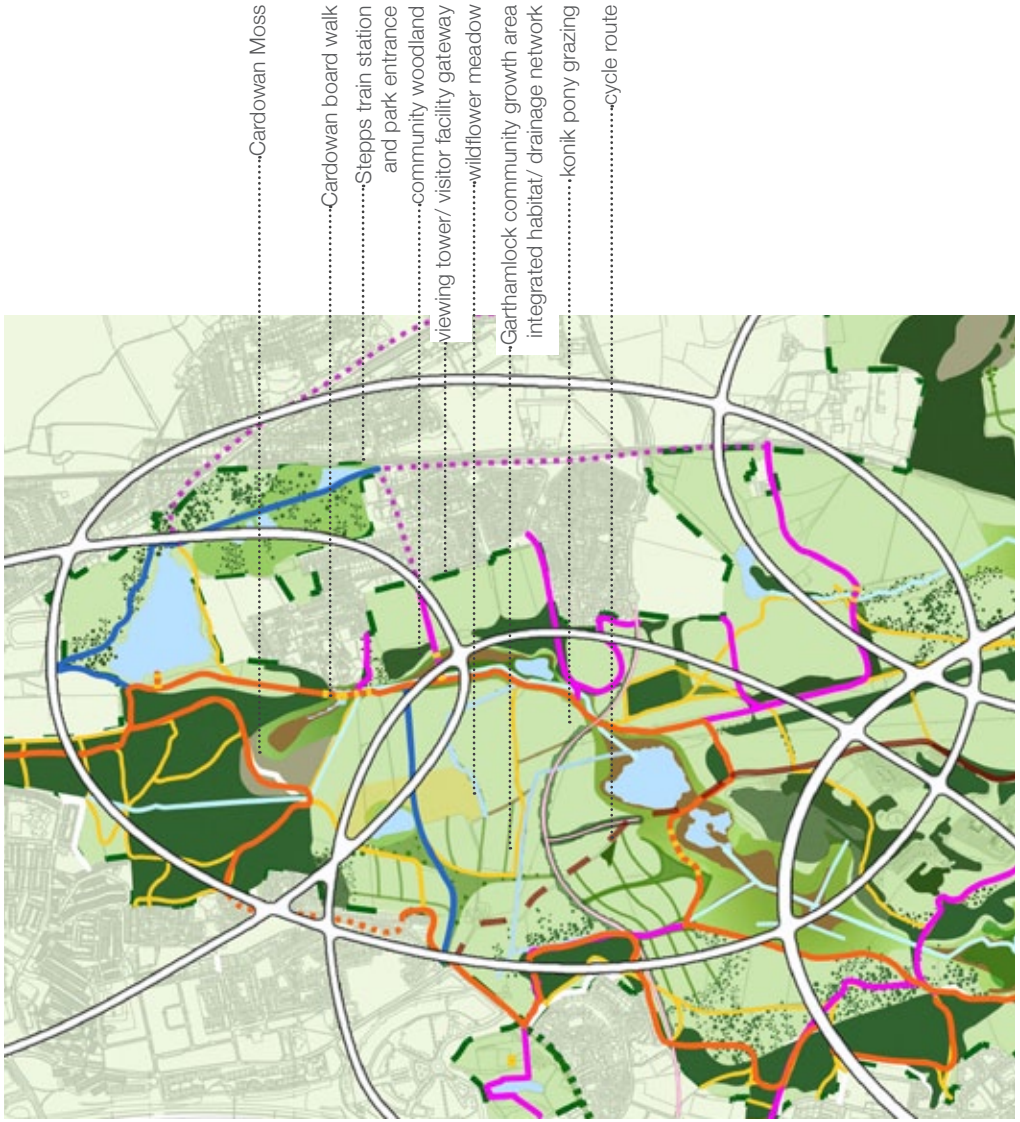


Fig. 8.13 Zone 2

The proposed principal route continues along the edge of Stepps through Cardowan Moss, which is designated a Local Nature Reserve. The moss is a relic area of raised bog, rich in wildlife and diverse habitats, including wetlands, woodlands and grasslands.

A private housing development sits on the site of a former colliery to the east of Stepps. Significant areas of social housing sit alongside and address the edge of the wetland park. The edge of Stepps sits at a high vantage point, with commanding views across the proposed Seven Lochs Wetland Park towards the south. As part of the vision for the wetland park, it is envisaged that a row of dilapidated shops will be refurbished and will include a new visitor gateway facility. This will provide residents and visitors with information and access to the park, together with refreshments and toilets. Furthermore the remainder of the refurbished shops will ensure that the local community benefit from much needed local amenities and services.

Fig. 8.14 Konik ponies near Stepps

Fig. 8.15 Proposed Gartloch Pools bird hide and boardwalk

Fig. 8.16 Zone 3

Gartloch Pools and Provan Hall

- Zone 3

From Stepps, the principal route through the Seven Lochs Wetland Park continues south towards the Gartloch Pools. The pools are a relatively recent addition to the landscape of the wetlands and are thought to have been formed as a result of subsidence related to historic mining. The Gartloch Pools sit to either side of the Gartloch Road, providing passers by with the memorable experience of journeying through the centre of this unique habitat. The overall site includes marsh, fen and rough grasslands, together with the pools which are designated Sites of Importance for Nature Conservation. The Gartloch Pools are an important sanctuary for indigenous breeding wetland birds, together with passing migratory birds.

The vision for the park proposes a raised boardwalk to allow visitors to pass by the Gartloch Pools and continue their journey onwards towards Bishop Loch. The pools are to be allowed to continue to develop naturally, with wetland planting supported and encouraged. Associated with the boardwalk is a small vertical architectural intervention in the form of a bird hide.

Fig. 8.17 Gartloch Pools looking north

Fig. 8.18 Gartloch Pools looking east

Fig. 8.19 Proposed boardwalk through the Gartloch Pools Local Nature Reserve

Fig. 8.20 Zone 3

The two main southern gateways to the Seven Lochs Wetland Park are located within the third zone. The proposed visitor facility at Provan Hall, which it is envisaged to be completed in advance of the 2014 Commonwealth Games, will provide facilities for visitors to Provan Hall and will also act as a gateway to the wetlands, with an emphasis placed on the significant historical value of the Bishop's Estate and the wetlands.

The Bridge at Easterhouse (an existing community building incorporating a library, theatre and performance spaces) has a key educational and recreational role to play in engaging the local community with the wetland park. As part of their education programme, The Bridge currently operates organised excursions into the wetlands for school children to learn about the diverse habitats and biodiversity on their doorstep. As part of the vision for the wetland park it is envisaged that these programmes will be expanded to provide a gateway into the park tailored towards the younger residents of the Easterhouse community. This existing, well attended community facility will compliment the new facility at Provan Hall, a gateway with a more historical agenda.

Fig. 8.21 Provan Hall and gardens

Fig. 8.22 Provan Hall and The Fort

Fig. 8.23 Proposed picnic stop located on the northern edge of Bishop Loch

Bishop Loch

- Zone 4

Bishop Loch is the largest in the series of ice age kettle ponds within the proposed Seven Lochs Wetland Park. The banks of the loch are bordered by Easterhouse to the south, and by the former Gartloch Hospital to the north west. The hospital has recently been redeveloped as private housing. Remains of iron age crannogs have been discovered on the banks of the loch, together with the remains of a country palace once belonging to the Bishops of Glasgow. Legend has it that the Bishops used to travel in gondolas from Glasgow Cathedral to Bishop Loch via the Molendinar Burn, and by way of the lochs and interconnecting burns that lie to the west of Bishop Loch.

Bishop Loch is designated a Site of Special Scientific Interest, with the area between the loch and the Bothlin Burn to the north encompassing the largest reed bed in central Scotland. Residents from Easterhouse currently engage with the wetlands for dog walking and recreational purposes. A perimeter fence currently separates the Gartloch Hospital residential development from Bishop Loch and its surroundings.

Fig. 8.24 Zone 4

Fig. 8.25 Bishop Loch looking west

Fig. 8.26 Bishop Loch looking east

Fig. 8.27 Proposed pavilion located close to Bishop Loch, providing shelter and panoramic views

Fig. 8.28 Proposed boardwalk from Gartcosh through new wetland area towards Bishop Loch

Fig. 8.29 Zone 4

The proposed principal route through the Seven Lochs Wetland Park divides into two at the western edge of Bishop Loch. It is here, close to the established woodlands of Craigend Wood and the Lochwood Plantation, that a new vertical bothy element is envisaged.

The principal route splits into two, with one route heading south towards Commonhead Moss and Drumpellier Country Park. The other route heads north towards Gartcosh, by way of a new boardwalk through reed beds, providing visitors with the chance to experience this unique habitat. The rustling and texture of the reeds and the feeling of being deep within the reed beds, will offer an exciting multi-sensory experience for visitors to the wetland park. The boardwalk connection will also provide visitors and residents with a direct connection to Gartcosh railway station, opening up potential routes around the edges of the loch.

A small picnic area is proposed within the woods to the northern edge of the loch. This is situated some distance away from the loch to ensure that wildlife remains undisturbed, but still provides commanding views across the loch.

Fig. 8.30 Bishop Loch, with Lochend Loch and Woodend Loch in the distance

Fig. 8.31 Proposed green bridge to Commonhead Road across M73

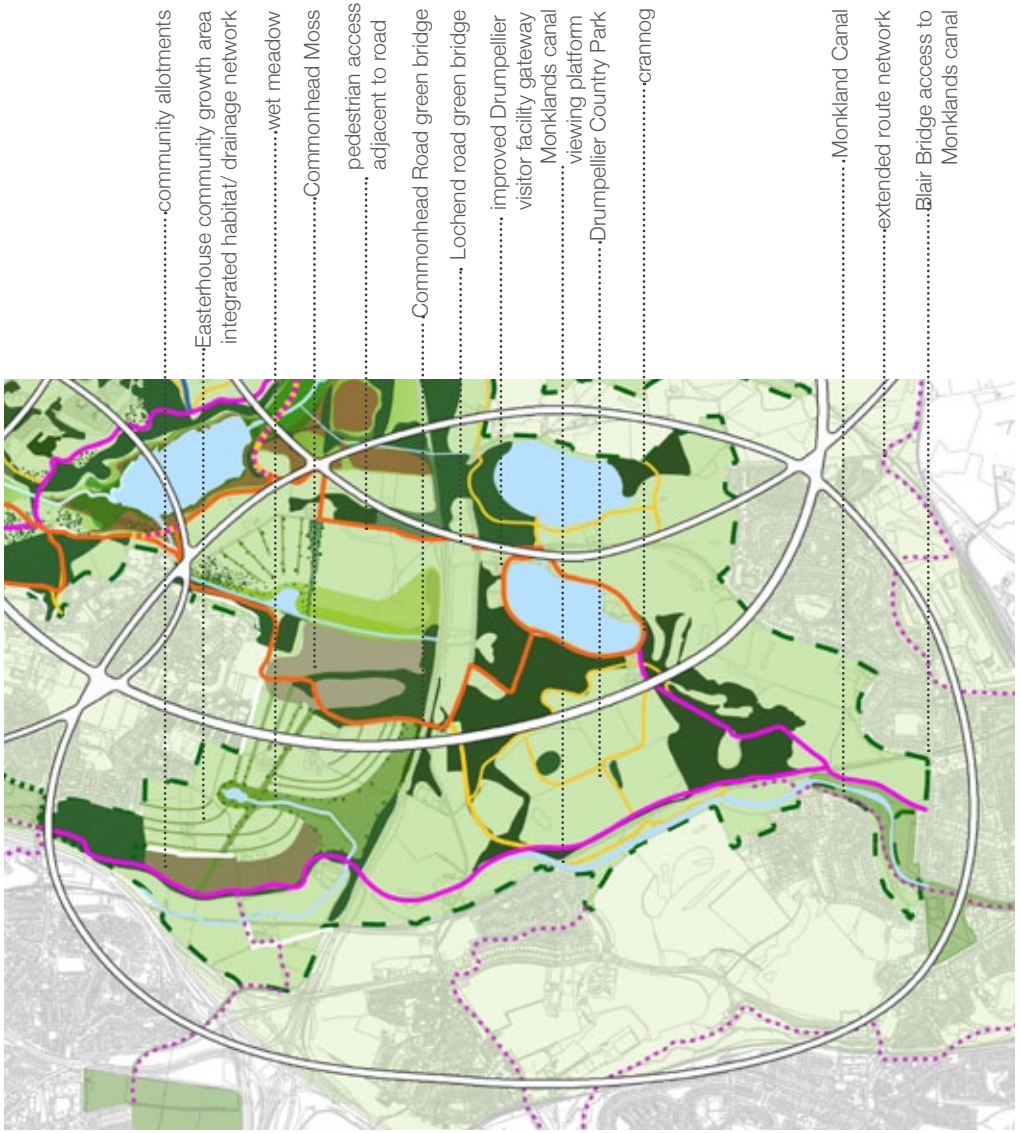


Fig. 8.32 Zone 5

Drumpellier Country Park

- Zone 5

Zone 5 encompasses Commonhead Moss, the M73 and the existing established Drumpellier Country Park. The M73 forms a considerable physical and psychological barrier across the centre of the park, with few opportunities for visitors to cross from one side to the other. Overcoming this barrier is key to the overall success of the Seven Lochs Wetland Park as a singular entity, within the boundaries of Glasgow City Council and North Lanarkshire Council.

The vision for the wetland park includes proposals for the greening of two existing bridges on Commonhead Road and Lochend Road over the M73, providing visitors with a clear connection across the motorway, encouraging connections between the communities that lie to either side, and enhancing habitat connections for wildlife. This is to be achieved through the introduction of continuous planters and extended pavements on the bridge, to either side of a single lane road. The greening of the bridge will also serve to advertise the Seven Lochs Wetland Park to passers by on the motorway, who currently travel through the heart of the park, unaware of the unique habitats that lie to either side.

Fig. 8.33 Lochend Loch & Woodend Loch

Fig. 8.34 Looking west across M73

Fig. 8.35 Proposed reconstructed crannog situated on Lochend Loch

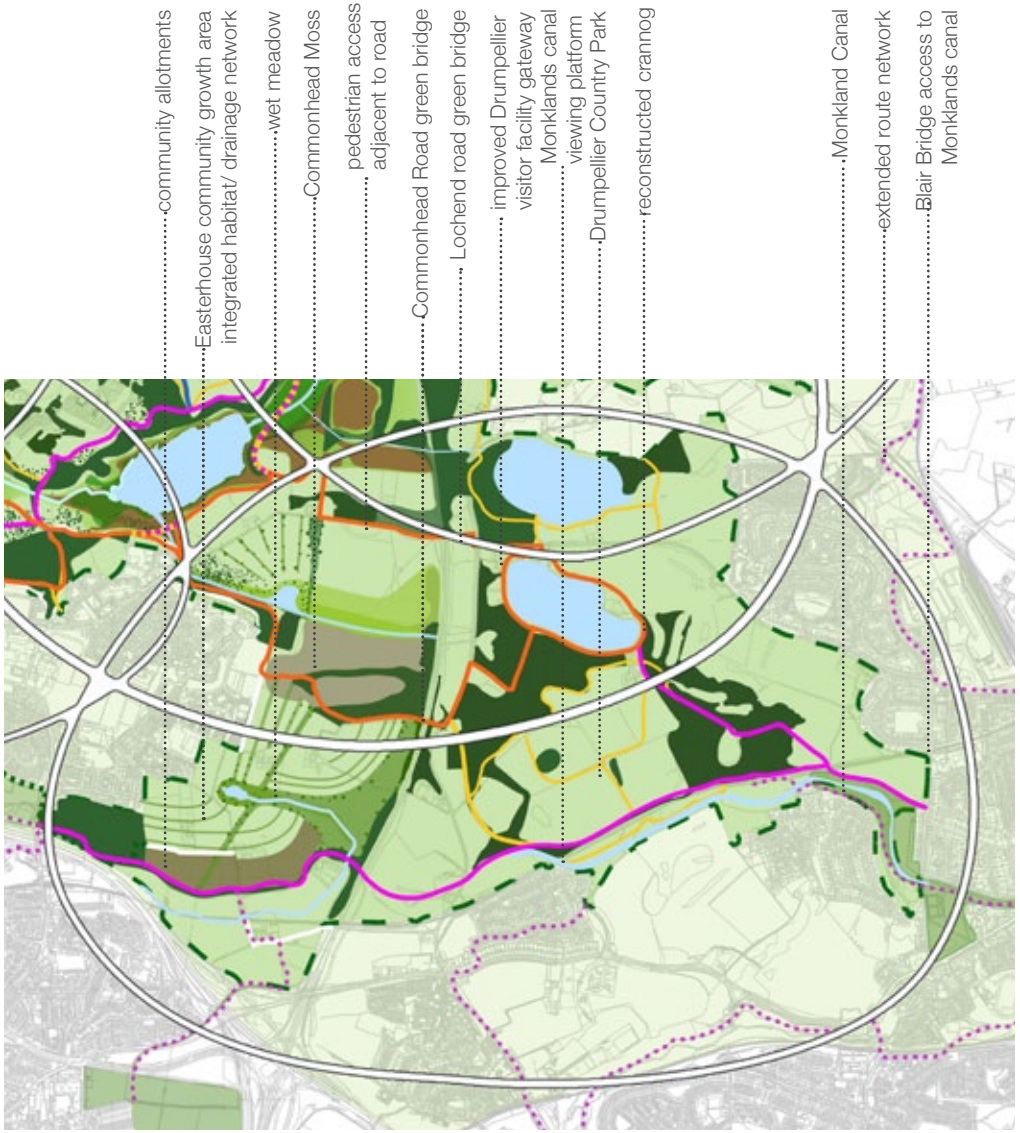


Fig. 8.36 Zone 5

Drumpellier Country Park is situated to the west of Coatbridge. During medieval times the parklands were the farming grange of the Monks of Newbattle Abbey. This gave rise to the historical 'Monklands' name for the area. Subsequently the area became a private estate, which then in turn came into public ownership in 1919. Drumpellier was designated as a country park in 1984. The park is well used and well loved by residents of Coatbridge and other visitors from further afield.

From the 'green' bridge across the M73, a further pathway through the ancient bog lands that lie to the south of Lochend Loch, completes the principal route. Lochend Loch is a popular recreational facility and is surrounded by a wide public footpath. The remains of an iron age crannog on stilts have been located within the loch itself. To the north of Townhead Road lies Woodend Loch, which is a Site of Special Scientific Interest. This area has been made specifically less accessible to the general public in order to protect the wildlife.

The proposals for the Seven Lochs Wetland Park include the refurbishment of the current visitor facility at Drumpellier Country Park, which faces onto Townhead Road. This will form an additional gateway to the park and will be complimented by the construction of a new small 'crannog' on stilts within the loch. Existing play areas and boating facilities will be improved and extended to encourage more visitors to Drumpellier Country Park as a gateway into the Seven Lochs Wetland Park.

Fig. 8.37 Depiction of Johnston Loch community gateway

Johnston Loch and Gartcosh

- Zone 6

Gartcosh lies to the north of the Seven Lochs Wetland Park. Historically the Gartcosh Fireclay Works and the Gartcosh Iron and Steel Company were the main sources of employment for Gartcosh's residents. Gartcosh has been identified as a major area for community growth, which will eventually provide an anticipated 3000 new homes.

Gartcosh and Johnston Loch are separated from the main body of the park by a railway line. Current access to Gartcosh from the wetland park is by way of the ramped access associated with the recently re-opened railway station. Gartcosh station will serve the expanded population of Gartcosh as well as the Gartcosh Business Interchange, a new business park with a sustainable agenda. It is envisaged that a new path and underpass under the railway line will be completed by the developers of the community growth area (CGA) that surrounds Johnston Loch, providing a direct link to the southern sections of the park for residents, visitors and wildlife.

Fig. 8.38 Zone 6

Fig. 8.39 Johnston Loch looking south

Fig. 8.40 Johnston Loch looking north

Fig. 8.41 Depiction of proposed Glenboig dipping pond with associated teaching classroom
(note: classroom may be positioned more remotely from pond)

Glenboig and Garnqueen Loch

- Zone 7

Extending northwards from the entrance to the Seven Lochs Wetland Park at Gartcosh railway station, zone 7 encompasses the Gartcosh Business Interchange, a new Local Nature Reserve which is home to the protected Great Crested Newt, Glenboig Village, and Garnqueen Loch. The re-opening of Gartcosh station has provided the area with some, albeit limited, connections to the main body of the wetland park, with access over the railway line at the station. The area has also been identified for expansion, with a number of small community growth areas proposed around the perimeter of Glenboig.

Detailed plans have already been drawn up for a new visitor facility at Garnqueen Loch, the Glenboig Life Centre. It is proposed that this new centre will become a gateway into the park. Integration of the area into the main body of the park is essential, and a pavilion in combination with an additional water body is proposed to promote the principal route.

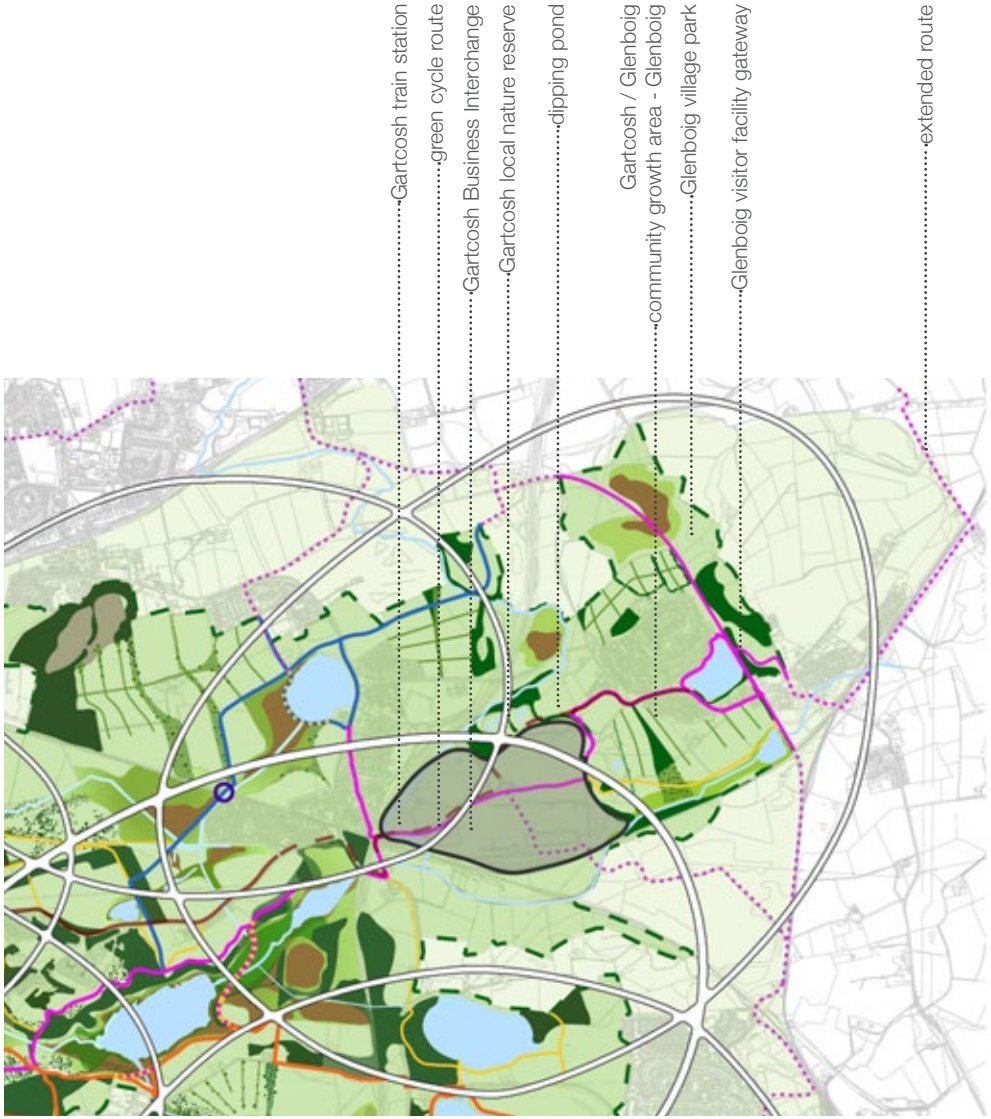


Fig. 8.42 Zone 7

Fig. 8.43 Garnqueen Loch looking east

Fig. 8.44 Garnqueen Loch looking south

09 Implementation

Bringing the vision to life

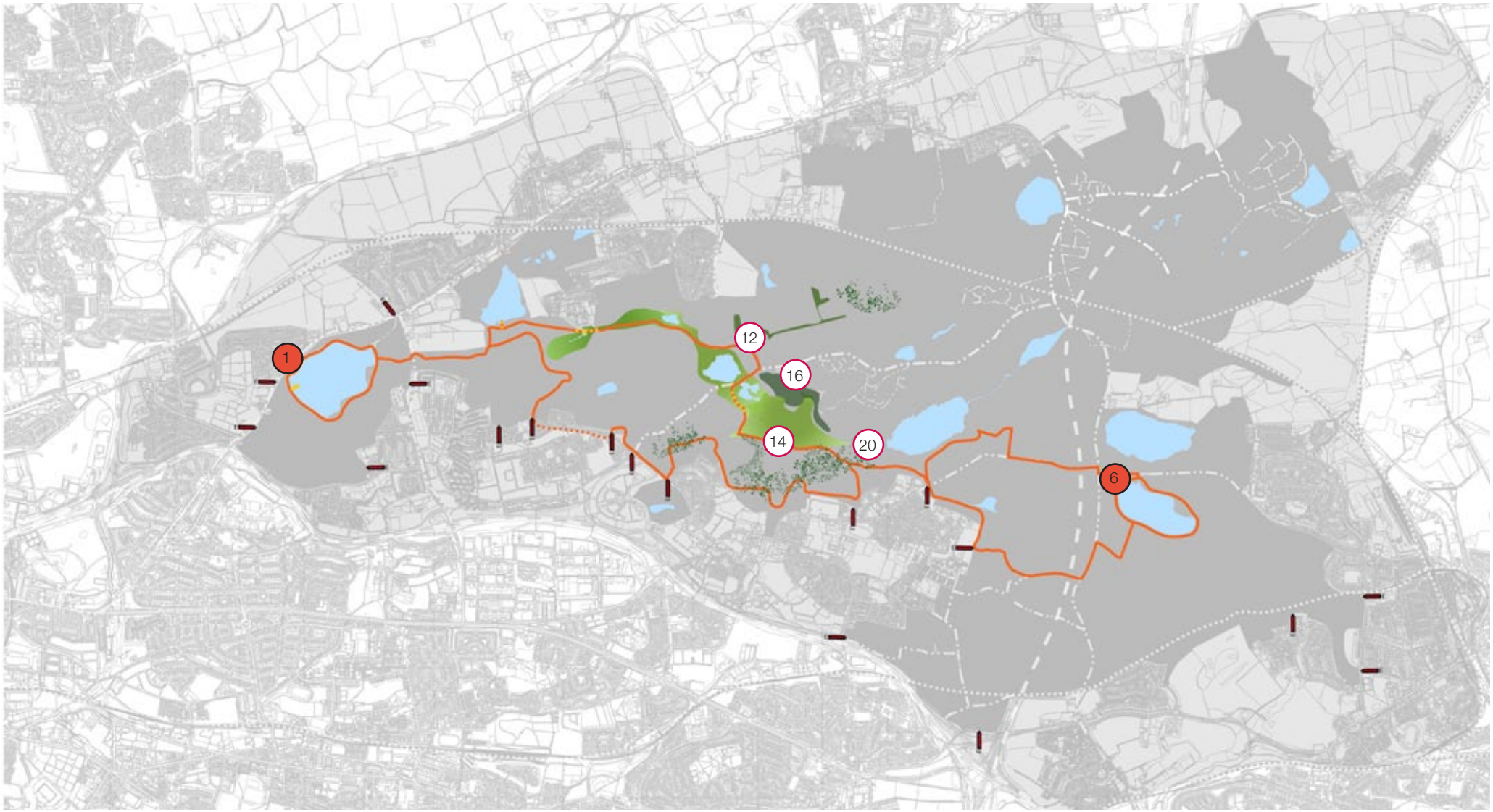
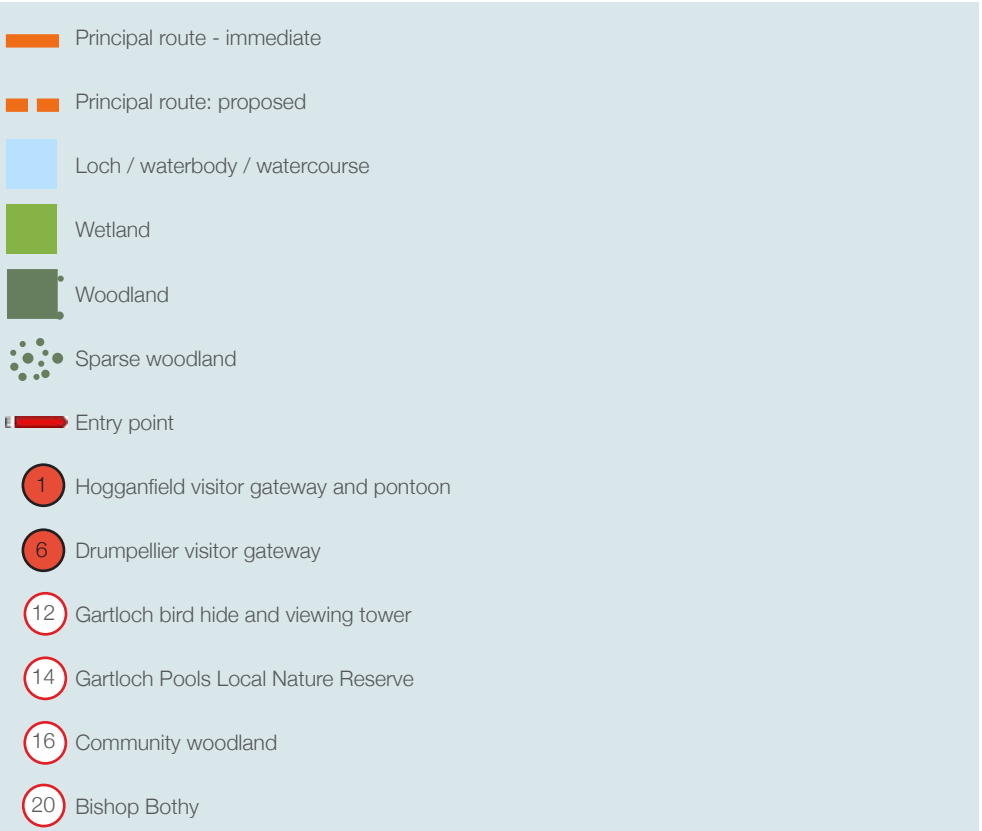


Fig. 9.01 Phase 1



Phase 1

Phase 1 embodies the main aim of the park, which is the protection and enhancement of the existing wetlands and woodlands (key:14 and 16). The cultivation of these habitats at an early stage will ensure key areas of habitat are retained and established, and continue to develop on an ongoing basis with effective management and implementation. The provision and management of these habitats is intrinsic to the success of many other elements of the park, such as boardwalks, bird hides and dipping ponds, which encourage an understanding of the park's educational and recreational value.

The creation of the principal east west route is a key element of the park strategy. The route is focused in utilising council land, drawing on existing route networks with some minor upgrading, and the introduction of a new path and boardwalk, critical for achieving the principal route for both pedestrians and cyclists.

Small facilities have been placed early in the phasing, to attract a variety of visitors. Proposals include the Gartloch bird hide (key:12), the Bishop Bothy (key:20) and improvements to visitor facilities at the already well used and prominent eastern entrance to the park, including a cafe with toilets at Hogganfield Park (key:01) and upgraded facilities at Drumpellier (key:06).

The creation of a park identity begins with phase 1. Raising awareness is essential to ensure the park's long term viability as a visitor attraction. This will generate the interest necessary to warrant the proposals outlined in subsequent phases.

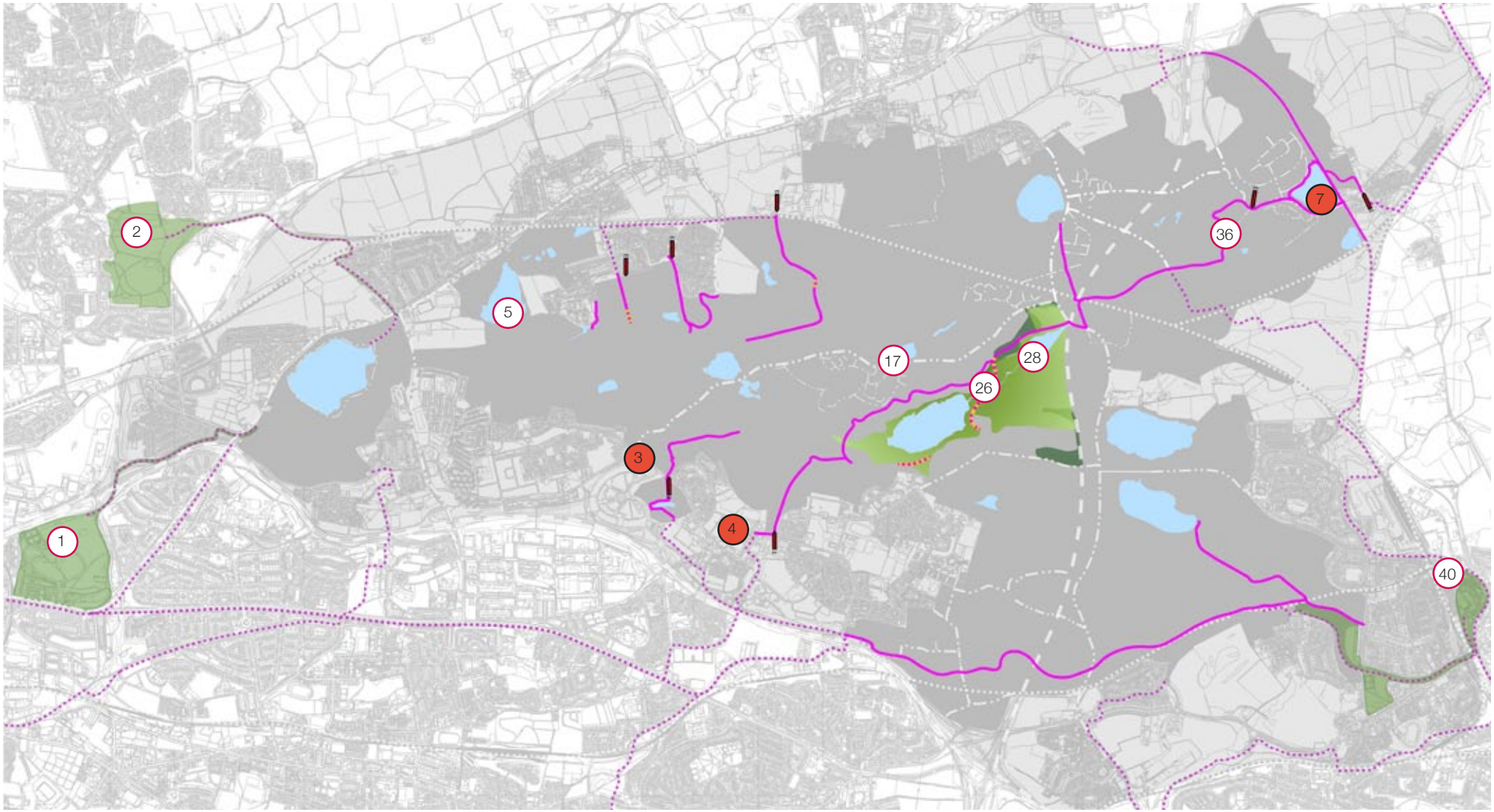


Fig. 9.02 Phase 2

Phase 2

Phase 2 is focused on extension and enhancement. This involves the extension of the principal route into communities both within and outwith the park, and the enhancement of the existing habitat.

Phase 2 proposes a secondary route and boardwalk, a new viewing platform at Frankfield Loch, and a pontoon at Hogganfield Loch, that all stem from the principal route.

The new route incorporates the northern communities of the park, physically connecting Garnqueen Loch, the proposed new Life Centre Gateway (key: 07) and Frankfield Loch Local Nature Reserve (key: 5) to the park, taking advantage of Stepps and Gartcosh train stations. A dipping pond (key: 36) is also proposed for educational purposes, within the Gartcosh Local Nature Reserve.

A key area for phase 2 is the flooded farmland to the east of Bishop Loch - the Bothlin wetland (key: 28). A management strategy for the cultivation and enhancement of this landscape into a new wetland habitat will be required. The proposed Bothlin wetland is integral with the extended principal route to Garnqueen Loch. This will allow park users to experience a diverse range of habitats and landscapes along the principal route, whilst providing a long term hydrological and environmental benefit to the park.

Phase 2 is more constrained than phase 1, due to land ownership issues and landscape designations. These will need to be resolved during the development of the first phase of the creation of the Seven Lochs Wetland Park.

Overnight accommodation for park visitors may also have to be considered at this stage in order to increase the outreach of the park and its activities and facilities offered.

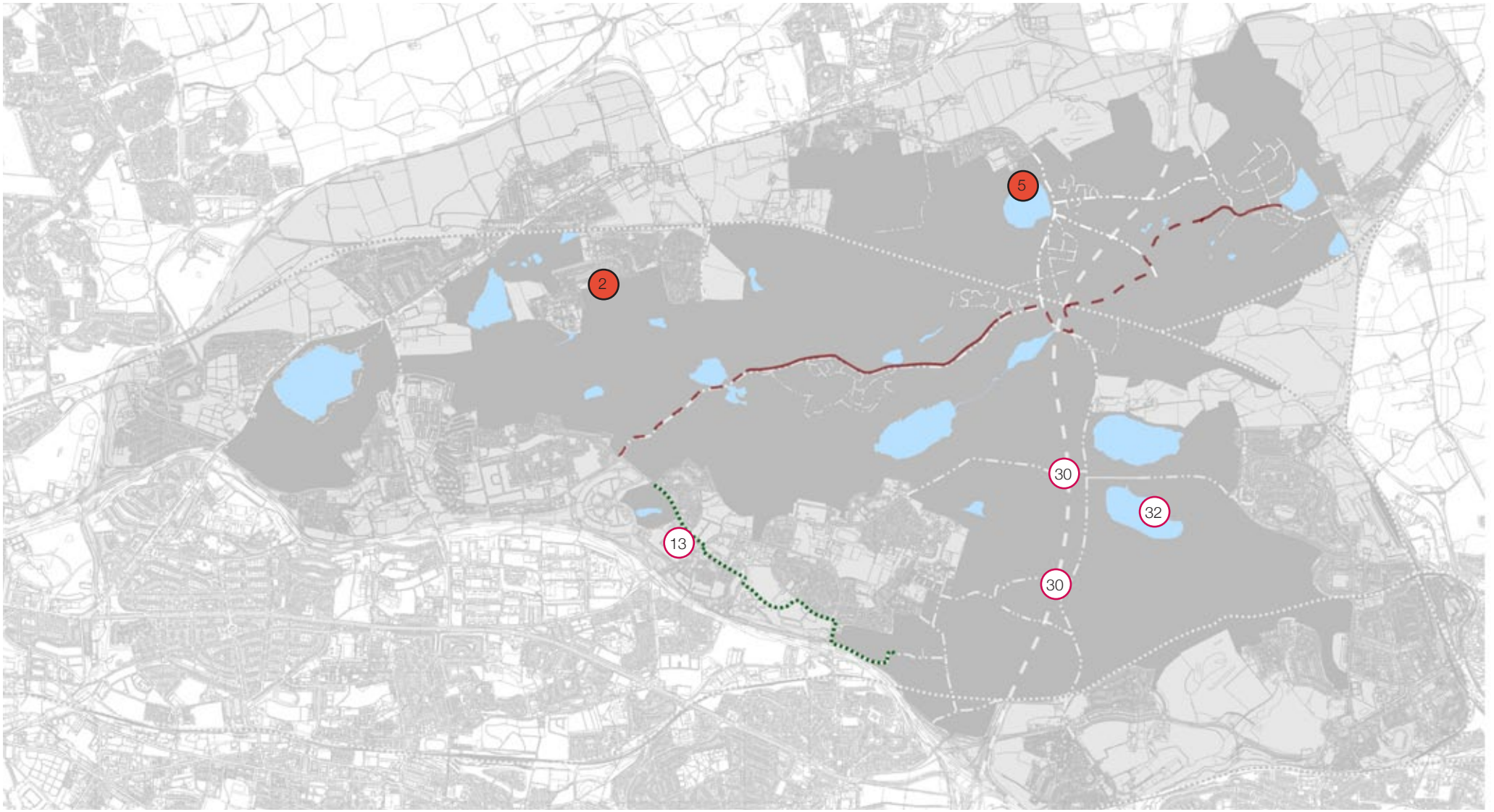
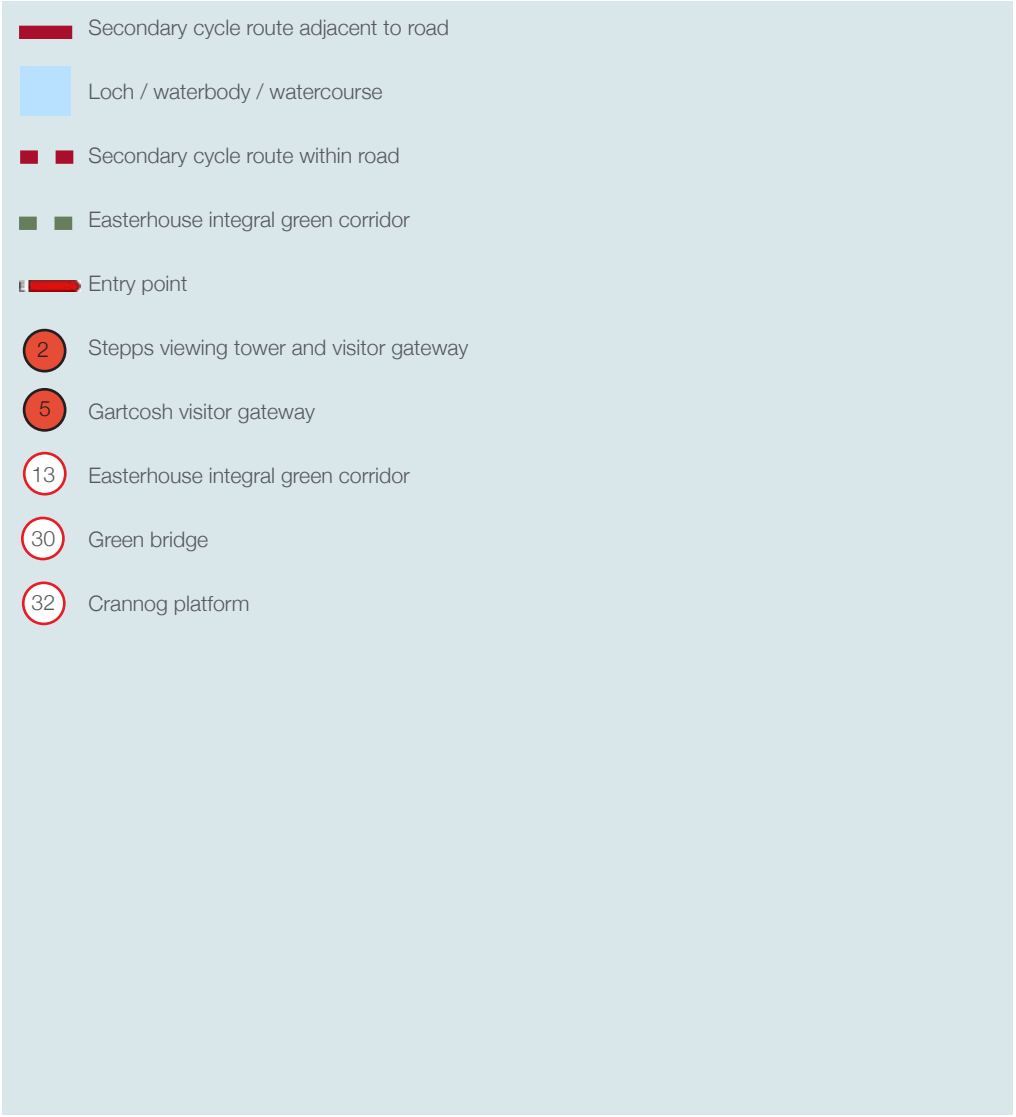


Fig. 9.03 Phase 3



Phase 3

Phase 3 includes aspirational proposals which would be of considerable benefit in promoting the identity of the Seven Lochs Wetland Park, and which would facilitate access to specific areas within the park.

Phase 3 includes the greening of Commonhead Road bridge (key: 30), refurbished facilities at Gartcosh visitor gateway (key:05), local amenities at Stepps, for a new gateway and a viewing tower (key:02) and a new crannog platform at Drumpellier Country Park (key: 32).

Phase 3 also recognises the opportunity to further enhance connections within the park. In preparation for community growth and subsequent increased park use, the Easterhouse integrated green corridor (key: 13) and secondary cycle route would be implemented.

Fig . 9.04 Phase CGA

Phase CGA / private developments

The phased proposals have been designed to accommodate the changes occurring in and around the park as part of the CGAs and private developments, through the use of developer contributions.

The designation of the wetland park can therefore by symbiotic - future development benefits from design considerations and environmental improvement as part of the park, whilst the park is bolstered by funding from developer contributions.

Proposals include the construction of a route connecting Bishop Loch and Johnston Loch (key: 23). This route would only be viable with the development of the CGA at Johnston Loch providing a source of users for the route and a destination for a south - north route. The implementation of this route would involve the creation of an underpass at the train line which currently isolates Johnston Loch from the rest of the site. As this would be of considerable cost and limited use before the CGA was in place, it is proposed that this should be funded by way of developer contributions.

Also proposed within the CGA phase are a number of community resources, which would become viable once the CGAs were in place. Allotments (key: 27) adjacent to the culverted Monkland Canal tie in with the neighbouring Easterhouse CGA, which in turn form an extension to proposals for gardens associated with Blairtummock House. It is proposed that these allotments are developed as part of the Easterhouse CGA. However, they could also be used by people from further afield, with access provided by way of Easterhouse train station.

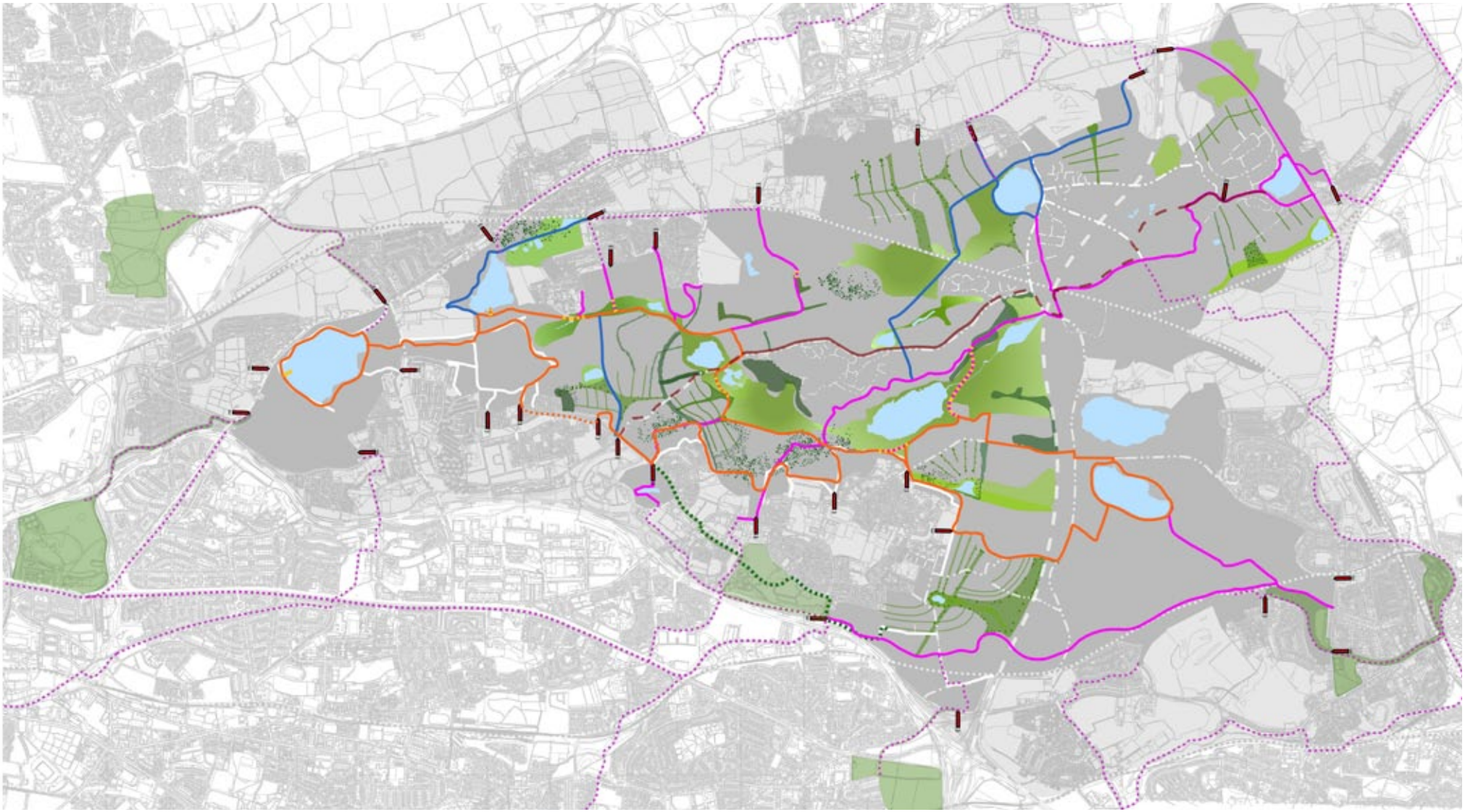


Fig. 9.05 All phases

For the key to this plan please refer to the keys on the preceding phasing plans, or to the A2 fold out proposed site plan which accompanies the masterplan report.

All phases

Phasing of the park has been planned to accommodate changes in 3 stages. The 3 phases introduce greater aspirations to the wetland park as they progress and work together to build up an overall proposal for the park.

10 Appendices

-

Ecology

The Ecology of the Seven Lochs Study Area

The lochs found in the general area of the proposed wetland park are kettlehole lochs formed when the glaciers of the last ice age receded leaving behind depressions in the ground which filled with water. The lochs are generally shallow and nutrient rich. Along with these lochs, there are a number of watercourses, drainage ditches, small ponds and wetland areas which form a complex system along which water moves through the area. The influence of man, and his manipulation and exploitation of the resources of the area has influenced the development of a highly diverse range of habitats on which depend a diverse range of flora and fauna species.

Designated Areas -
As a direct result of the mosaic of habitats that are present, the general area is regarded as being of high importance on a local, regional and in some instances, national importance for nature conservation. The boundary of the park includes the following statutory designated areas:

- Bishop Loch SSSI
- Woodend Loch SSSI
- Bishop Loch LNR
- Cardowan Moss LNR
- Hogganfield Park LNR
- Commonhead Moss LNR

Allied with the above national designations there are numerous Sites Important for Nature Conservation (SINC) within and adjacent to the proposed boundary of the park. SINC is a local non-statutory designation with areas identified and designated by both North Lanarkshire Council and Greater Glasgow Council planning authorities.

Habitats -
The general area of the proposed wetland park has an undulating topography with a number of raised areas, some of which are formed by artificial bings. The area is a mosaic of both terrestrial and aquatic habitats with extensive woodland, agricultural and wetland habitats. Several of these habitats support both nationally and regionally important species of flora and / or fauna. The following main habitats are present:

Wetland Habitats -
The main aquatic habitats of the area are the lochs although several small ponds are also present. The lochs and ponds are generally shallow and nutrient rich. This enrichment has been the result of agricultural runoff as well as enrichment from sewage. The naturalness of the lochs varies from the extensively modified banks of Hogganfield Loch and Lochend Loch, to the agricultural boundaries of Gartloch Ponds, through to the well vegetated margins of Bishop Loch and Woodend Loch.

It is the enrichment of the lochs which has resulted in the littoral vegetation of Bishop Loch and Woodend Loch becoming well developed, with a range of habitats from open water through swamp to fen being present. The littoral zone at Bishop Loch and Lochend Loch is relatively undisturbed with several nationally scarce or notable species present. However, the SSSI Management Statement makes note that the littoral zone at Bishop Loch appears to be drying out due to extensive areas of canary reed grass.

There are also a number of drainage ditches and other water courses within the general area. Several drainage ditches have become blocked, either accidentally or deliberately, whilst others have become blocked through the natural processes of siltation and seral succession. As a result these changes may have altered the natural flow of water through the area with several drainage ditches now existing in subsurface flow only.

There are a number of peatland areas, 4 of which have been utilised in the past for peat extraction. This has led to extensive areas being drained and the wetland/ peat habitats being lost. One such area at NS 69620 65948 close to Drumpellier Country Park is currently undergoing remediation. Drains have been blocked to prevent water loss and encroaching scrub woodland has been removed.

Woodland -

The woodland cover within the proposed park boundary includes hedgerows, tree shelter belts, new plantation woodland, naturally occurring scrub woodland as well as feature planting within the golf course. The species present include both native as well as exotic species. Much of the mature woodland cover is a direct result of the estates that were previously present within the area. These include Cardowan House, Drumpellier House, Gartloch House, Blairtummock House and Bedlay Castle. Woodland species that are present include Pedunculate oak, sycamore, beech, silver and downy birch, rowan, alder and ash. Many of the hedgerows, which are important habitats for birds and bats as well as for connecting woodland habitats together, appear to be in poor condition. Many are incomplete, leggy and are species poor.

Within the boundary of the proposed wetland park there are vestiges of ancient woodland. In Scotland, Ancient Woodland is defined as land that is currently wooded and has been continually wooded since at least 1750. As a result of this continuity of woodland cover, the biodiversity of an ancient woodland is often much higher than what may occur in more recent woodlands. Within the proposed park boundary, the ancient woodland is mainly located around Bishop Loch and to the south of Lochend Loch although small artefact woodlands are present outwith these areas.

The areas around Frankfield Loch and Cardowan Moss LNR have become increasingly wooded in recent years. Tree planting has been carried out and natural regeneration of birch woodland has occurred in those areas where minimal management is being carried out.

Agricultural Habitats -

Agriculture within the area of the park includes both arable and live stock farming. Several areas of rough pasture where management appears minimal are present within the park. It is unclear whether these areas are not being farmed or are currently being left fallow. A number of agricultural fields appear to flood during the winter and may be used during the summer months for the grazing of livestock. The field boundaries of the agricultural field appear narrow and have low ecological value.

Wildlife -

A wide range of wildlife is present within the general area. Otter are known to be present and there are also populations of water vole. Roe deer can be seen moving throughout the area as can fox. Populations of great crested newt are known to be present at Gartcosh and may be present within the small ponds throughout the area. The woodland habitats, wetland areas, ponds and water courses along with the littoral habitats found along the loch margins, all provide suitable and important habitat for a wide variety of birds.

Key Ecological Issues -
The key issue relating to the ecological resources of the proposed wetland park is that there are a number of landowners and no coherent or inclusive management plan for the conservation and / or enhancement of the ecological resources of the area. Although site management plans exist for the SSSIs, these plans are in isolation to the surrounding areas.

In order that a management plan for the ecological resources of the proposed wetland park can be established, the lack of in-depth knowledge of the ecological resources of the area needs to be addressed. As such, it is recommended that a series of in-depth ecological surveys be carried out to ascertain:

-what habitats are present,
-the condition of these habitats and
-what species are present or rely on these habitats

From this information a management plan can be established to prevent further degradation of habitats from occurring and to allow remediation or enhancement measures to be carried out where necessary.

The management plan should include the identification of areas where wetland habitats require management to arrest the natural processes of succession. Natural succession from open water through the various wetland habitats to terrestrial habitats such as woodland, will occur if wetland habitats are not prevented from drying out. This would include the littoral habitats of Bishop Loch and Woodend Loch as well as the remediation of the peatland habitats which have been adversely impacted by peat extraction. An example of this remediation is located close to Drumpellier Country Park and is discussed above. It should be noted that areas where peat extraction has been carried out may not be suitable for remediation as remediation depends on whether any peat substrate remains within the area.

Access is a key issue that will require to be addressed. The wetland park currently has 2 honey pot areas in Hogganfield Loch Park and Drumpellier Country Park. Woodend Loch and Bishop Loch are perhaps the most sensitive areas within the boundary of the proposed park. This sensitivity is due in part to the fragility of the habitats but also due to the relative inaccessibility of the lochs.

The disturbance caused as a result of inappropriate use of the general area is significant. For example, damage to habitats has occurred as a result of vandalism throughout the area but especially to woodland where approximately 50% of mature trees in some areas have been lost as a result of vandalism. Shooting and fly tipping are also prevalent throughout and are having a negative impact on the general area. Unauthorised fishing is taking place with camp fires built from wood from adjacent trees. A bird hide in the vicinity of Woodend Loch was apparently destroyed by fire.

Increased access to sensitive locations, which would be identified through the in-depth survey, could lead to an increase in disturbance and loss of sensitive or fragile species and habitats. As such, routing and construction of footpaths and boardwalks requires careful consideration. Increased access to the immediate vicinity of Bishop Loch and or Woodend Loch, may be detrimental to the management strategy of the SSSIs, and therefore, negotiations with Scottish Natural Heritage should be undertaken.

Fig. 10.01 Bishop Loch looking towards the Gartloch Hospital site

Fig. 10.02 Bishop Loch

The Landscape of the Seven Lochs Study Area

The Seven Lochs Wetland Park study area comprises a significant region of green space on the edge of Glasgow and North Lanarkshire urban conurbations and forms part of the Glasgow Green Belt.

Much of the area is rural in character with open fields and hedgerows, with traces of historic peat cutting and of former mining activities such as bings. Large public parks are located along the periphery of the study area with recreational facilities at Drumpellier and Hogganfield Parks.

Water is a dominant feature within the landscape here in the form of open water, burns and seasonally flooded or persistently wet ground with a complex catchment area converging on the Bothlin Burn then draining to the north and east.

A substantial proportion of the study area is made up of natural or semi natural open green space in the form of open water, woodland, wetland and moss.
The main water bodies of the study area include:

- Hogganfield Loch;
- Frankfield Loch;
- Bishop Loch;
- Johnston Loch;
- Lochend Loch;
- Woodend Loch;
- The ponds and pools of Gartcosh Local Nature Reserve and Garnqueen Loch;
- The emerging Gartloch Pools; and
- Small streams and water courses such as the Bothlin Burn.

There are pockets of scattered woodland which include field boundaries and riparian corridors; plantation woodland on the western edge of Cardowan Moss; community woodland adjacent to Easterhouse; mature estate woodland at Gartloch; and copse fringe along Garnkirk Moss North and Heathfield Moss. Semi natural woodland exists at Gartcosh Local Nature Reserve; Drumpellier Park; Woodend Loch; Frankfield Loch and parts of Hogganfield Park.

The network of wetland and woodland habitats together with open water, reedbeds, wet grasslands, mosses and wet woodlands, and along with substantial peat deposits, provide a rich and valuable natural. The value of this resource is recognised by the SSSIs at Bishops Loch and Woodend Loch. Local Nature Reserves have also been designated at Commonhead Moss, Gartcosh, Craigend Wood, Cardowan Moss and Hogganfield. Several of these extensive areas are designated as Sites of Importance for Nature Conservation. Further details of landscape and environmental designations across the study area are described within Chapter 2 of the report - ‘Context’.

Fig. 10.03 Gartloch Pools viewed from Gartloch Road

Key Landscape Issues and Constraints

At present, the Seven Lochs study area lacks a coherent identity, with attractive managed areas such as Bishop Loch and Drumpellier Park in contrast to neglected or degraded areas. A fragmented pattern of land ownership along with a lack of integrated long term management and protection to the Seven Lochs area, will threaten its sustainability as both a valuable local resource and biologically diverse open green space.
Key landscape considerations are:

- The Seven Lochs study area is enclosed by the surrounding urban fabric and suffers from intense development pressure. New developments are under construction at Frankfield Loch and Gartcosh; permission has been granted for further developments at the Gartloch Pools and Craigendmuir, along with a new road. Community Growth Areas are also identified at Gartcosh, Netherhouse, Lochwood and the area adjacent to Cardowan Moss. Development poses the danger of further fragmentation of the open space, which may result in loss of character and isolation of areas of natural green space.

- The landscape quality varies greatly across the study area with areas of degradation where farmland is unmanaged and land drains have not been maintained. This contributes to the 'broken window syndrome' encouraging the fly tipping and vandalism evident in those areas.

- The study area is publicly accessible from a number of points along the urban edge but access is fragmented with footpaths of variable quality, with railway and motorway corridors forming physical barriers to north – south and east - west. Gartloch Road running west / east forms the main cycle access. There are good walking facilities at Bishop Loch and Drumpellier Park, but poor footpath connections to other parts of the study area.

- New pools emerging at Gartloch may be the result of former mining activity and may create issues of contamination with potential for long term effects downstream on the SSSI area at Bishop Loch.

Fig. 10.04 Hogganfield Loch

Key Opportunities

The creation of a wetland park in this area providing framework mechanisms for integrated land management across the seven lochs could provide a framework to protect and enhance this unique wetland system, incorporating access, education and recreation provision. The Seven Lochs Wetland Park would also offer an important resource as part of long term flood management of the wider urban area.

With immediate access from urban communities in (east) Glasgow and North Lanarkshire, there is potential to provide significant local opportunities for education, training and health which, along with the potential to attract users from the wider region, could potentially be a driver for regeneration in adjacent areas.

Specific opportunities include:

- Expansion of the existing wetland by appropriate management and carefully judged intervention such as impeded drainage, natural colonisation of wetland species and specific habitat enhancements. The ongoing management will be the key factor in retaining, creating or expanding the wetland areas.

- Successional planting in areas of TPO mature estate woodland close to Gartloch Hospital to preserve and reinforce the historic landscape structure.

- Significant areas of new native woodland planting particularly in areas of former industrial activity such as Gartharmlock Quarry.

- Management and restoration of those areas retained as agricultural land including restoration of hedgerow and boundary planting and provision of broad shallow ditches to provide both field drainage and habitat opportunities. There would be an opportunity to introduce meadow management to seasonally wet or flooded fields as part of a wider SUDS management programme.

- Improving access by expanding and upgrading the existing footpath network to create linkages throughout and across the site including improvements to cycle provision. This provides opportunities for interpretation and orientation signage including links to and from local transport and railway.

- Specific management of the emerging Gartloch Pools including investigation of potential contamination and any required remediation.

- Promoting local use, community engagement and education through local gateway visitor centres, specific projects and activities such as path restoration, community woodland, school activities, guided nature walks or bird watching groups.

- Engagement in any development proposals within the Seven Lochs Wetland Park to limit impact on the landscape character and biodiversity, to ensure appropriate design solutions that maintain the integrity of the wetland network and to avoid fragmentation of the green space.

- Identification, use and establishment of the study area as a wetland park will protect its future survival as biodiverse open greenspace, improve perceptions of the wider local area and discourage the existing anti social behaviour problems arising from neglect.

Fig. 10.05 Frankfield Loch

Comments from RSPB Scotland

The following comments were received from the RSPB as part of the initial consultation process. These comments were incorporated into the masterplan proposals.

Development

1. The maps in the draft proposal include reference to a housing development at Gartloch Farm, which encroaches on two Sites of Importance for Nature Conservation. After four years, a decision is still pending on this application and there are outstanding objections from RSPB Scotland, amongst others. We suggest that the proposal is removed from the maps and instead some reference be made to it in the text.

2. Developer contribution is likely to be vital to the delivery of the wetland park. There should be an assumption that new development in this area should contribute financially or through land allocation to the masterplan.

Access and visitor facilities

3. RSPB Scotland is currently working with Glasgow City Council on a winter bird feeding project at Hogganfield Loch, where visitors will be provided with grain to feed the ducks and swans. The aim is to inspire and educate people about the birds and should they wish to feed them, encourage them to provide more nutritious alternatives to bread.

4. It is important that new access provision does not lead to increased disturbance to the nature conservation sites in the area. It would be useful to define which of the lochs will be kept undisturbed and primarily for wildlife and which lochs are able to cope with improved or increased access, albeit it with careful management.

5. One of the footpath routes on the initial proposal appears to cut through part of Gartloch Pools C-SINC, which could have adverse effects on the sensitive wildlife using the site. We recommend that the route be taken up to the west of the Gartloch Hospital development, across the B806 and to the north of the main Gartloch Pool (see 10.06). This could then be easily linked to the proposed route to Hogganfield Loch. The higher ground to the north of the main Gartloch Pool also means that the route would benefit from improved views and could be a suitable location for one of the lookout structures that the designers are proposing.

6. We have similar concerns as above, about the circular route around Bishop Loch, though there is a greater degree of existing disturbance at this site and it may be possible to manage and screen the access, so as to reduce disturbance. Methods of screening can include using topography, low scrub or materials such as wicker or wood. The edge of Bishop Loch could be a suitable location for a viewing hide. Viewing facilities such as this not only improve the experience for visitors but also help to limit disturbance to wildlife by channelling people to specific areas.

7. To the east of Bishop Loch there is one of, if not the largest reedbed in Central Scotland. Few people will have had chance to explore this habitat, which provides an exciting multisensory experience, with the rustling and texture of the reeds and the feeling of being deep in amongst the vegetation. RSPB has successfully used boardwalks combined with viewing screens to provide access through reedbeds at other sites.

8. There is an opportunity to provide an artificial sandmartin bank on the edge of Bishop Loch, preferably on the north bank and away from access routes. Not only does this provide a valuable habitat but it would also become an exciting visitor spectacle.

9. There is a risk of vandalism and anti-social behaviour in the area and so all structures should be designed with this in mind.

Fig. 10.06 Ordnance Survey map - RSPB's preferred route around Bishop Loch shown in red

Land management

10. The Gartloch Pools complex and the land on the north west edge of Bishop Loch should be brought into public or charitable ownership as a priority, as these sites form a key part of the wetland corridor and careful management of them is crucial. The acquisition could potentially be achieved as planning gain from one or more of the housing release sites.

11. The open grassland and wetland habitat of the area would benefit from a well managed grazing regime. Though this is hard to implement through a masterplan, it is important to ensure that proposed development does not inhibit grazing access. It would be useful to include provision of stock shelter within the proposed masterplan. The use of Konik ponies, which are an attractive but extremely hardy breed, requiring very little care, could be explored. The ponies would also provide a visitor attraction.

12. Specifically, the habitat at Gartloch Pools and at Bishop Loch would benefit from ongoing management, including rush and reed control, some management of water levels and increased grazing.

13. Farmland wading birds such as lapwing and redshank have suffered very serious declines in the last 50 years, meaning that probably the majority of people have never seen and enjoyed these once common birds. Providing and managing a number of wader scrapes – a very shallow excavation, surrounded by short grass and open aspects – around the wetland park, will provide a important wildlife habitat and allow people to view these spectacular birds. We would suggest the farmland between Hogganfield Loch and Gartloch Pools as a suitable location.

Infrastructure

14. SUDS ponds should generally be located at the edge of the developments and aim to provide an ecological link to the surrounding countryside. Care needs to be taken, however, when linking SUDS ponds and existing sensitive wetland areas, as there is a risk of contamination. Where there is uncertainty about whether contamination can be fully controlled, we would suggest a precautionary approach - the SUDS and wetlands should not be directly linked. SUDS ponds can also be used to positively manage disturbance, where the edge of a development is close to a sensitive site. Creating a permanent wetland barrier ensures that predation from domestic cats and dogs and disturbance from people is reduced.

15. New or existing roads through the wetland park should be designed to be as porous for wildlife and people as possible. Some guidelines are provided in the Design Manual for Roads and Bridges (http://www.standardsforhighways.co.uk/dmrb/). However we would recommend that the masterplan seeks to go further than this, with high quality underpasses, designed specifically for wildlife provided at key points along the roads.

Other

16. There is an existing facility with a cafe and boats on the northern shore of Johnston Loch and this could serve as a useful local hub for promoting the wetland park.

17. We would support the employment of one or more rangers to cover the area to help deliver an education programme, improve access and reduce anti-social behaviour. Again, funding for this post could be delivered through planning gain from one or more of the housing release sites.

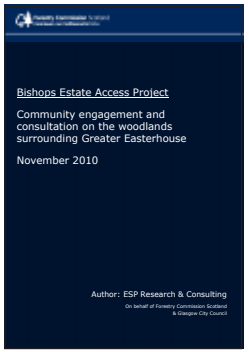
18. We support the provision of allotments in the Masterplan Proposals providing these do not impact on Commonhead Moss or any of the other LNRs of Sites of Importance for Nature Conservation.

Fig. 10.07 Walkways and pond dipping facilities at RSPB's Saltholme Reserve (Anne McCall, RSPB Scotland)

Fig. 10.08 RSPB Newport Wetlands Reserve (Anne McCall, RSPB Scotland))

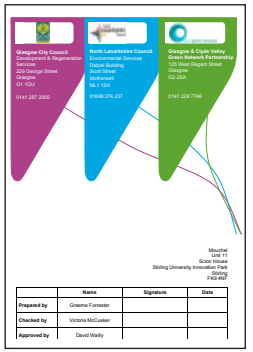
1.

2.

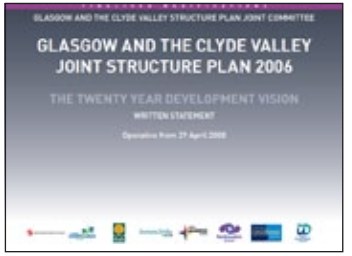


3.

4.



5.

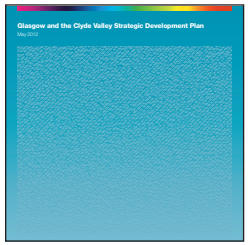


6.

7.

8.

9.

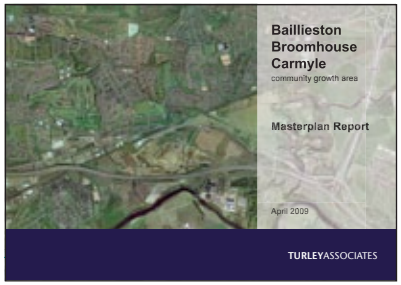


10.

11.

12.

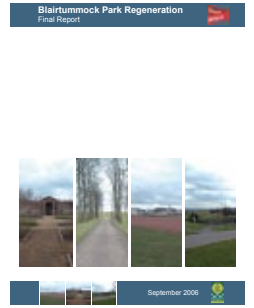
13.



14.

15.

16.



17.

Policy and advice

The Seven Lochs Wetland Park study has taken cognisance of key Scottish Government and Local Government policy documents, together with a number of detailed reports relating to the area, carried out by a variety of consultants.

The masterplanning and visioning study draws on the wealth of information contained within these documents and reports, to inform the development of a masterplan and vision for the area. The masterplan incorporates community growth areas identified by both Glasgow City Council and North Lanarkshire Council within its proposed boundaries. The core paths strategies adopted by both Glasgow City Council and North Lanarkshire are also included within the masterplan.

Policy documents, reports and design studies of particular relevance are noted to the left hand side of this page.

Reference Documents

1. Gartloch Gartcosh Green Network Strategy and Management Plan for the Bishop's Estate - January 2008 - Prepared by Land Use Consultants

2. Gartloch / Gartcosh Site Selection and Development Guidance - September 2010 - URS / Aecom

3. Bishop's Estate Access Project - Community Engagement and Consultation on the woodlands surrounding Greater Easterhouse - November 2010 - ESP Research and Consulting

4. Glasgow City Plan - Comprehensive Planning Study to determine capacity and the potential for development - Easterhouse / Gartloch - October 2004 - Babtie Group

5. Glasgow City Council, North Lanarkshire Council & Glasgow and Clyde Valley Green Network - Gartloch and Gartcosh Hydrological Scoping Study - 2010 - Mouchel

6. Glasgow and the Clyde Valley Joint Structure Plan 2006 The Twenty Year Development Vision - Written Statement - April 2008 - Glasgow & Clyde Valley Structure Plan Joint Committee

7. North Lanarkshire Local Plan - Executive Summary - 2009 - North Lanarkshire Council

8. Gartcosh : Glenboig Community Growth Area Concept Statement - April 2010 - North Lanarkshire Council

9. Glasgow City Plan 2 - 2009 - Glasgow City Council

10. Glasgow Local Biodiversity Action Plan - 2008 - Glasgow City Council

11. North Lanarkshire Local Biodiversity Action Plan - 2009 - North Lanarkshire Council

12. Glasgow Core Paths Plan - 2008 - Glasgow City Council

13. North Lanarkshire Core Paths Plan - Draft - 2008 - North Lanarkshire Council

14. Baillieston Broomhouse Carmyle Community Growth Area Masterplan Report - April 2009 - Turley Associates

15. Robroyston / Millerston Community Growth Area Finalised Masterplan Consultation Report - August 2009 - Stewart Milne

16. Monkland Canal: Development Framework - July 2009 - LKMK Landscape Architects

17. Blairtummock Park Regeneration - September 2006 - Scott Wilson

Fig. 10.09 Vestvagoy - Lofoten Islands, Norway

Fig. 10.10 Dearne Valley, England - RSPB

Fig. 10.11 Boardwalk - Ontario, Canada

Fig. 10.12 Dulwich Wetland Boardwalk,London

Fig. 10.13 Slimbridge WWT Centre - England

Fig. 10.14 Flanders Moss - viewing platform affording views across the boglands

Dams to Darnley Country Park:
Dams to Darnley is a project developed by East Renfrewshire and Glasgow City councils covering an area of 1350 acres of green belt land. Recreational activities and a network of paths have been developed. The park's landscape includes different landscape features and habitats including open water, wetland and burn, grassland and woodland. Much of the park area is working farmland.

Fig. 10.15 Dams to Darnley Country Park

Flanders Moss National Nature Reserve:
Located in an area of bogland 10 miles west of Stirling, Flanders Moss is the largest raised bog in Britain. It is a remnant of what was one of the largest lowland bog areas in Britain, the majority of which was reclaimed for farming during the 18th century. The site has many rare and uncommon features, undisturbed vegetation, and provides visitors with the opportunity to stroll along boardwalks through a remote and waterlogged landscape.

Fig. 10.16 High level view of Flanders Moss

Colne Valley Regional Park:
A river valley with wetland landscape over 40 square miles. The focus of this park designation was the protection of the area against development pressures posed by surrounding regional and national road, rail and air infrastructure at such a busy location near to Greater London.

- Positive management of green belt land
- Conservation society
- Organised walks and events

Fig. 10.17 Colne Valley Regional Park

Precedents

Wetland parks are generally designed to combine wildlife and habitat preservation with a strong emphasis on recreation and education. Parks that provide nature conservation and interpretation in conjunction with both informal and formal recreational facilities tend to be the most successful. Some wetland parks also place a focus on economic regeneration, both within the park area itself, and more widely within surrounding communities. The inclusion of water on a site immediately allows for a more diverse park area and can be a key element in encouraging people to use a park. A number of park areas throughout the UK promote an emphasis on water as a way of attracting visitors.

Wetland focused parks range from large parks with regional status, such as the Colne Valley Regional Park to the West of London, and the River Nene Regional Park in Northamptonshire, through to smaller wetland centres such as the Slimbridge Wetland Centre on the Severn Estuary, which is run by the Wildfowl and Wetlands Trust, and the London Wetland centre, featuring a variety of purpose built habitat areas.

Many wetland parks include specialist centres, promoting an understanding of habitats and species, whilst also providing facilities for visitors, and an important source of revenue. There is scope for the Seven Lochs Wetland Park to ensure an appropriate balance of visitor attractions, together with the preservation of habitats and wildlife, by drawing on existing precedents within the UK, Europe and further afield.

The Wildfowl and Wetlands Trust offers guidance on the development of wetland parks and has overseen the development of a number of wetland centres across the UK. These typically include areas of reedbeds, meadows and wet woodlands, with pathways and boardwalks interspersed throughout. Structural elements such as bird hides and observation towers can also be incorporated in order to sustain a visitor programme of walks and educational tours.

Meetings & site visits

28 October 2010

Inception Meeting
Venue - Offices of Glasgow Clyde Valley Green Network Partnership

International Resources and Recycling Institute
Nick Lythe - Director
Glasgow Clyde Valley Green Network Partnership
Max Hislop - Programme Manager
Collective Architecture
Jude Barber - Director
Nick Walker - Project Architect
Nathan Cunningham - Architectural Assistant
MCM Associates
John McManus - Director / Lead Consultant
Brown and Wallace
Gordon Wallace - Partner

15 November 2010

Constraints and Opportunities Workshop
Venue - Offices of Collective Architecture

Glasgow Clyde Valley Green Network Partnership
Max Hislop - Programme Manager
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Glasgow City Council
David Mowat - Senior Planning Officer
North Lanarkshire Council
Mark Forrest - Senior Planning Officer
Collective Architecture
Jude Barber - Director
Nick Walker - Project Architect
Nathan Cunningham - Architectural Assistant
Aecom
Sian Lovell - Principal Landscape Architect
Dr Brian Cuthbert - Associate Director, Environment
MCM Associates
John McManus - Director / Lead Consultant

24 November 2010

Meeting with Aecom
Venue - Offices of Aecom in Edinburgh

Collective Architecture
Nick Walker - Project Architect
Nathan Cunningham - Architectural Assistant
Steven Byrne - Architectural Assistant
Aecom
Dr Brian Cuthbert - Associate Director, Environment
Sian Lovell - Principal Landscape Architect
Andrew Mitchell - Environmental Scientist

02 December 2010

Progress Meeting with representatives of GCC & NLC
Venue - Offices of Brown and Wallace

Glasgow City Council
David Mowat - Senior Planning Officer
Seamus Connolly - Development and Regeneration Services
Geoff Foord - Strategic Drainage
Dave Garner - Ecologist - Land and Environmental Services
Dave Marshall - Assistant Manager Parks Development - Land & Environmental Services
North Lanarkshire Council
Vicky Abernethy - Assistant Business Manager, Greenspace
Glasgow Clyde Valley Green Network Partnership
Max Hislop - Programme Manager
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Forestry Commission Scotland
Tom Wallace - Beat Forrester
Collective Architecture
Jude Barber - Director
Nick Walker - Project Architect
Nathan Cunningham - Architectural Assistant
Steven Byrne - Architectural Assistant

16 December 2010

Strategic Delivery Partnership Meeting Presentation (GCVGNP)
Venue - Offices of the Clyde Valley Green Network Partnership

Glasgow City Council
Cathy Johnston - Chair - Group Manager Design & Environment Planning GCC
Geoff Foord - Strategic Drainage
Dave Marshall - Assistant Manager Parks Development - Land & Environmental Services
North Lanarkshire Council
Phillip Gaunt - Business Manager (Strategic Planning)
Mark Forrest - Senior Planning Officer
Glasgow Clyde Valley Green Network Partnership
Max Hislop - Programme Manager
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Ruby McKeown -Administration Assistant
Scottish Natural Heritage
Jimmy Hislop - Urban Area Officer
Royal Society for the Protection of Birds
Anne McCall - Regional Director
Collective Architecture
Jude Barber - Director
Nick Walker - Project Architect
Nathan Cunningham - Architectural Assistant
Steven Byrne - Architectural Assistant

10 January 2011

Meeting with MCM Associates John McManus
Offices of Collective Architecture

MCM Associates
John McManus - Director / Lead Consultant
Collective Architecture
Nick Walker - Project Architect
Steven Byrne - Architectural Assistant

18 January 2011

Meeting with SNH Integrated Habitat Network Officer
Venue - Offices of Scottish Natural Heritage (Clydebank)

Glasgow Clyde Valley Green Network Partnership
Max Hislop - Programme Manager
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Ruby McKeown -Administration Assistant
Scottish Natural Heritage
Fiona Stewart - Glasgow Clyde Valley Integrated Habitat Network Officer
Collective Architecture
Jude Barber - Director
Nathan Cunningham - Architectural Assistant

19 January 2011

Meeting with Brown and Wallace
Venue - Offices of Brown and Wallace

Collective Architecture
Nick Walker - Project Architect
Lizzie Smith - Architectural Assistant
Nathan Cunningham - Architectural Assistant
Brown and Wallace
Gordon Wallace - Partner

20 January 2011

Glasgow Building Preservation Trust / Provan Hall Presentation
Venue - Offices of Glasgow Building Preservation Trust

Glasgow City Council
Dave Marshall - Assistant Manager Parks Development - Land & Environmental Services
Glasgow Building Preservation Trust
Anne McChlery - Director
Elaine Lee - Project Development Officer
Collective Architecture
Nick Walker - Project Architect
Lizzie Smith - Architectural Assistant
Nathan Cunningham - Architectural Assistant
Moffat Institute
Tony Harrison

24 January 2011

Meeting with Aecom (Edinburgh)
Venue - Offices of Aecom in Edinburgh

Collective Architecture
Nick Walker - Project Architect
Nathan Cunningham - Architectural Assistant
Lizzie Smith - Architectural Assistant
Aecom
Dr Brian Cuthbert - Associate Director, Environment
Sian Lovell - Principal Landscape Architect
Debbie Hay-Smith - Hydrology
Colin Stewart - Senior GIS Specialist

26 January 2011

Meeting with the Clyde Valley and Green Network Partnership
Venue - Offices of Collective Architecture

Glasgow Clyde Valley Green Network Partnership
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Collective Architecture
Nick Walker - Project Architect
Nathan Cunningham - Architectural Assistant
Lizzie Smith - Architectural Assistant

28 January 2011

Meeting with British Waterways
Offices of British Waterways - Falkirk Wheel

Collective Architecture
Nick Walker - Project Architect
Lizzie Smith - Architectural Assistant
British Waterways
Richard Miller - Business Development Manager

3 February 2011

Meeting with Brown and Wallace
Venue - Offices of Brown and Wallace

Collective Architecture
Lizzie Smith - Architectural Assistant
Nathan Cunningham - Architectural Assistant
Brown and Wallace
Gordon Wallace - Partner

8 February 2011

Design Team Progress Meeting
Venue - Offices of Collective Architecture

Glasgow Clyde Valley Green Network Partnership
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Collective Architecture
Nick Walker - Project Architect
Lizzie Smith - Architectural Assistant
Nathan Cunningham - Architectural Assistant
Brown and Wallace
Gordon Wallace - Partner
MCM Associates
John McManus - Director / Lead Consultant

21 February 2011

Steering Group Progress Meeting
Venue - Offices of Collective Architecture

Glasgow City Council
David Mowat - Senior Planning Officer
Dave Marshall - Assistant Manager Parks Development - Land & Environmental Services
North Lanarkshire Council
Mark Forrest - Senior Planning Officer
International Resources and Recycling Institute
Steve Taylor -
Glasgow Clyde Valley Green Network Partnership
Max Hislop - Programme Manager
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Collective Architecture
Nick Walker - Project Architect
Lizzie Smith - Architectural Assistant
Nathan Cunningham - Architectural Assistant

03 March 2011

Strategic Delivery Partnership Meeting (GCVGNP) Presentation
Venue - Offices of Glasgow Clyde Valley Green Network Partnership

Glasgow City Council
Cathy Johnston - Group Manager - Design & Environment Planning
David Mowat - Senior Planning Officer
Alan Russell - GCC DRS Neighbourhood Planning
Dave Marshall - Assistant Manager Parks Development - Land & Environmental Services
North Lanarkshire Council
Mark Forrest - Senior Planning Officer
John Turnbull - Countryside and Landscape Business Manager
Glasgow Clyde Valley Green Network Partnership
Max Hislop - Programme Manager
Scott Ferguson - Project Manager, Gartloch Gartcosh Green Network
Ruby McKeown - Administration Assistant
Scottish Government Housing and Regeneration Directorate
Sue Harris -
Forestry Commission Scotland
John Farrell - Development Officer West
RSPB Scotland
Anne McCall - Regional Director
Scottish Natural Heritage
Jimmy Hyslop - Urban Area Officer
Collective Architecture
Nick Walker - Project Architect
Lizzie Smith - Architectural Assistant
Nathan Cunningham - Architectural Assistant
MCM Associates
John McManus - Director / Lead Consultant

Site Visits

28 October 2010
15 November 2010 - with Aecom
24 November 2010
11 January 2011
12 January 2011
28 January 2011
8 February 2011
17 February 2011

CD Rom

The Seven Lochs Wetland Park
masterplan and visioning study
Collective Architecture 2011

Contents -
study document - pdf for printing
study document - pdf for reading (double pages)
proposed site plan - pdf for printing

COLLECTIVEARCHITECTURE AECOM BW+ MCM ASSOCIATES LTD