

## The Seven Lochs Wetland Park

Masterplan and Visioning Study

*How can endangered species and landscape be protected, by the formation of a proposed wetland park of international significance, whose very creation is reliant on developer contributions from the construction of new housing within the curtilage of the park?*

Submitted by Nick Walker  
Output No. 1



# OUTPUT

Collective Architecture were appointed by Glasgow and Clyde Valley Green Partnership in October 2010, to undertake a Masterplan and Visioning Study for the area of Gartloch and Gartcosh. The area had formed the basis of a number of studies which provided a detailed understanding of the area's hydrological significance, documented its unique wildlife and heritage, and which investigated the area's potential for new homes. However, all of this work had been undertaken by various independent disciplines, at different times, which lead to a diverse and unrelated series of outputs.

Collective Architecture's remit was to bring all of this information together, to form a single overarching vision for the area as a wetland park, which sought to promote the area's unique character, protect and enhance the existing heritage and natural heritage, and which considered Gartloch and Gartcosh as a whole in terms of its hydrology, heritage and recreational importance. As the study progressed, it became evident that integrating development from the out set would help to ensure the success and viability of the proposals for a wetland park. If housing was to be built by private developers on land identified for development, principles could be developed for integrating housing into the park. Working with these principles, developers would realise that integrated design could be achieved without additional cost, which in turn would make their properties more appealing to prospective purchasers.

## Research Question -

How can endangered species and landscape be protected, by the formation of a proposed wetland park of international significance, whose very creation is reliant on developer contributions from the construction of new housing within the curtilage of the park?

Title

*The Seven Lochs Wetland Park*

Submission No.

01

Authors/Creators

*Nick Walker - Project Architect - MSA / Collective Architecture*

*Lizzie Smith - Collective Architecture*

*Nathan Cunningham - MSA / Collective Architecture*

*Jude Barber - Collective Architecture*



*Diagrammatic plan of proposed 7 Lochs Wetland Park together with photographs of habitat.*

# CONTEXT

The Seven Lochs Wetland Park Masterplan and Visioning Study has been undertaken as part of the SIGMA for Water program, funded by INTERREG IVC. This program promotes inter-regional co-operation across Europe, with a vision to restore and develop new lakes and wetlands for climate change, and for the improvement of the environment in the participating regions. It is implemented under the European Union's territorial co-operation objective and is provided with 2.5 million Euros of finance through the European Regional Development Fund. The SIGMA for Water program involved 11 projects within 8 European Union countries, undertaken between January 2010 and the spring of 2013.

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. The International Resources and Recycling Institute (IRRI), as the Scottish partner in the SIGMA for Water project, is working with the Glasgow and Clyde Valley Green Network Partnership (CVGNP) on the Seven Lochs Wetland Park project.

Collective Architecture were appointed to undertake the Seven Lochs Wetland Park Masterplan and Visioning Study in October 2010. The first phase of the project, the final draft of the masterplan and visioning study, was completed in March 2013. This was accompanied by a Business Plan undertaken by MCM Associates, and a Cost Plan completed by Brown + Wallace.

The immediate client for the study was GCVGNP, who in turn reported to IRRI. 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, GCVGNP, IRRI, Scottish Natural Heritage, Forestry Commission Scotland, the Scottish Government's Housing and Regeneration Directorate, and the Royal Society for the Protection of Birds Scotland.

The project is now in its first stages of realisation, with work having commenced on site to improve access and awareness. The 7 Lochs Wetland Park is expected to be realised in 3 phases over the course of 15 years, at an estimated cost of £6 million pounds.





# CONTEXT

The lochs and wetlands which lie within the Gartloch and Gartcosh area, are one of Glasgow and the Clyde Valley's hidden treasures. The area supports a diverse range of habitats and species, and is also home to a significant number of cultural heritage sites from the Iron age through to remnants of the area's recent industrial past.

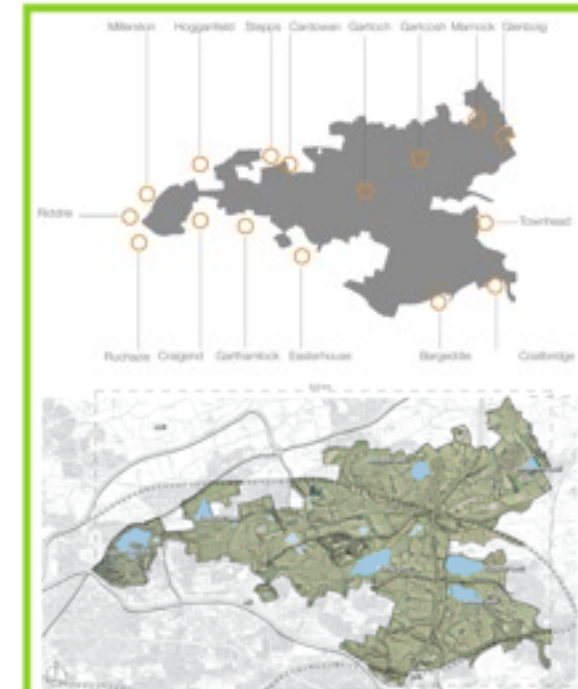
The Seven Lochs Wetland Park Masterplan and Visioning Study puts forward proposals for a new wetland park of international significance to the east of Glasgow, and to the west of Coatbridge. The proposed park is a 20 square kilometre area within the council boundaries of the City of Glasgow, and North Lanarkshire. The proposals will create Scotland's largest urban park, which, with its unique combination of habitat and wildlife preservation, opportunities for recreation, and the integration of new housing in an urban setting, will represent an innovative model for truly sustainable development.

The communities surrounding the park have been identified as areas of significant deprivation. Glasgow and North Lanarkshire Councils have sought to encourage inward investment through the creation of a number of Community Growth and Business Enterprise Areas.

These initiatives focus on housing renewal and socio-economic development. However, the councils also recognise the need to protect and enhance the natural and cultural assets as part of the regeneration process, as well as the opportunities for health and well being afforded by the potential to engage the surrounding areas of deprivation with the lochs and the wetlands.

*'The vision 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 biodiversity of the area as a national resource that promotes the general health and wellbeing of both visitors and residents alike, and contributes to the environmental, economic and social regeneration of the area.'*

The park's main roles, as an ecologically diverse wetland sustaining and protecting a range of habitats and species, and as an attractive and accessible recreational resource, will only come into being as a result of the payment of developer contributions related to the construction of approximately 4500 new homes in both Glasgow City Council and North Lanarkshire Council.



*Location and context for 7 Lochs Wetland Park*

# CONTEXT

The Seven Lochs Wetland Park lies within the area designated for the Glasgow and Clyde Valley Joint Structure Plan 2006, which proposes the creation of a 'Green Network' to manage and link green spaces. The plan aims to enhance the quality of life in communities within the area by improving green assets through the use of unused or derelict land for community benefit.

The main context within which the wetland park is situated is green belt and countryside, with an emphasis on the protection of environmentally designated sites. Community Growth Areas (CGAs) have been identified in and around the proposed wetland park by Glasgow City Council and North Lanarkshire Council, to deal with the anticipated shortfall in available housing. In addition there are a number of proposed private developments.

Central to the success of the proposed park is the integration of the proposed CGAs, private developments and a proposed new road. The boundary of the wetland park has been carefully considered to include the proposed CGAs and other private developments that lie towards its edges, to ensure that a high standard of design and sensitive integration into the park is achieved.

The areas of Gartloch and Gartcosh have been offered a temporary respite from overdevelopment as a result of the economic recession. A number of housing developments were completed before the downturn in the economy, which demonstrate the lack vision exercised by developers, who on the one hand exploit the location, whilst at the same time completely turning their backs on the opportunities the wetlands afford.

Developments address the wetlands with high timber fences, which block off any visual connections, as well as any opportunities for recreation and species movement. Roads are located in confusing cul-de-sacs ring fenced within the housing, disconnecting the housing from its surroundings and context. Lack of vision on the part of housing developers extends to the integration of the requirements of sustainable urban drainage (SUDS). Whilst these could offer up genuine habitat and species opportunities, most developers treat SUDS as a planning hurdle, which can be dealt with by the creation of isolated and sterile kidney shaped SUDS ponds.

The Seven Lochs Wetland Park represents an innovative approach to the incorporation of housing within an ecologically sensitive site.



*Proposed areas for CGAs, private developments and new road, together with examples of existing housing.*

# CONTEXT

The Seven Lochs Wetland Park Masterplan and Visioning Study addresses the issue of development by integrating the proposed Community Growth Areas and private developments within a clear strategy linked to recreational opportunities, and habitat and species preservation, as well as putting forward proposals for a positive engagement with the hydrological restrictions of the Gartloch and Gartcosh area.

Community Growth Areas, through reference to Scottish Natural Heritage's Integrated Habitat Network Model, were identified as areas of considerable opportunity for the growth and enhancement of habitat and species movement within the park.

Development related to community growth was strategically integrated into the park within the masterplan, by acknowledging the sensitivity, location, landscape and character of each individual area. Although it is anticipated that the CGAs will be privately funded by developers, their inclusion within the wetland park will ensure that clear design guidelines for developers are set out from the start, with an ambition to create exemplar integrated new housing within both Glasgow and North Lanarkshire's governance.

Developer contributions will act as a key revenue source towards maintenance and management of the park facilities.

The strategy for development within the wetland park focuses on an Integrating Green Infrastructure (IGI) approach, 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, whilst linking paths, natural habitats, play areas and amenity spaces with these to ensure the benefits of green space and green networks are maximised.

The benefits of the IGI approach include a reduction in flood risk, the incorporation of sustainable construction techniques, a reduction in long term maintenance costs, a buffering between urban form and the existing environment, and the integration of accessible networks and open green space into development for both human recreation and well being, as well as species movement.



*Development areas in relation to visitor gateways and recreational facilities. Integration of development.*

# METHODOLOGY

The Design Process involved the following tools and procedures -

## Information gathering and interpretation -

Topographical surveys, LIDAR & GIS, Integrated Habitat Network Modelling information and OS information were gathered from Glasgow City Council and North Lanarkshire Council, together with a number of other related sources. Desktop information gathering was carried out in conjunction with a series of detailed site investigations to record and interpret information at grass roots level. Information was then assessed, distilled and compiled in order to form the basis for design drawings and study findings.

## Policy and Advice -

The masterplan takes 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 wealth of information contained within these documents and reports informed the development of the masterplan and vision for the area. The masterplan incorporates Community Growth Areas and core path strategies identified by both Glasgow City Council and North Lanarkshire Council.

## Working with Consultants

Collective Architecture employed Aecom as sub consultants to provide specialist input in relation to ecology and GIS information interpretation. Brown + Wallace and MCM Associates were also employed as consultants to provide costings input and a Business Plan. To ensure clear and coherent input, a series of Constraints and Opportunities workshops took place, both within the office environment as well as on site. These ensured that ideas and information were quickly shared and investigated between the different disciplines.

## Stakeholder Consultations

During the course of the study, Constraints and Opportunities Workshops and Progress Reports were also programmed to involve the Steering Group at specific points in the development of the study. This not only provided Collective Architecture with an opportunity to keep the members of the Steering Group abreast of progress, but also provided an opportunity to obtain information from the various members of the Steering Group, which may not have been forthcoming previously.



*The 7 Lochs Wetland Park Masterplan and Communication and Stakeholder Consultation*



# METHODOLOGY

The Design Process involved the following tools and procedures -

## Precedents and Comparison

Existing wetland park precedents were researched as part of the study in order to inform approaches to landscape and species preservation. Wetland parks are generally designed to combine wildlife and habitat preservation. Those that place a strong emphasis on recreation and education alongside nature conservation and interpretation tend to be the most successful. Some wetland parks also place a focus on economic regeneration, both within the park area and within surrounding communities.

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, the Darns to Darnley Country Park and the Flanders Moss National Nature Reserve.

The 7 Lochs Wetland Park will represent the largest urban park in Scotland, and at 20km<sup>2</sup> will be comparable in scale to the Pentland Hills Regional Park (18km<sup>2</sup>).

## Report on Stakeholder Consultations

Further to the completion of the Draft Report Collective Architecture were commissioned by Glasgow and Clyde Valley Green Network to assist them in undertaking and documenting a series of consultations, as well as providing information for a consultation website.

A series of community engagement workshops took place over the course of 3 months, with members of the local community, landowners and stakeholders. Presentation boards and booklets were produced, and attendees were encouraged to leave their comments by way of 'post it' notes. These comments were collated and recorded by way of the Report on Communication and Stakeholder Consultations.

The findings were then discussed with the client. This process lead to a process of significant revision of the draft report, culminating in the completion of the Final Report in spring 2013. Both documents are now available to download on line and are listed within the dissemination section of this document.





# METHODOLOGY

## Conclusion

The Seven Lochs Wetland Park Masterplan and Visioning Study is an award winning exemplar project which provides a clear approach to the integration of development into proposals for a wetland park of international significance, with an anticipated 1 million visitors a year. The 20 square kilometer area, which will incorporate an anticipated 4500 new homes within CGAs, will form Scotland's largest urban park. Proposals for the park have been arrived at by way of the interpretation and re-presentation of significant bodies of existing information into an accessible vision for the viable development of the Gartloch and Gartcosh area.

The masterplan demonstrates that, with integrated and strategic planning, heritage, landscape, habitat and species can be protected in tandem with the development of new housing and infrastructure projects. Indeed the formation of the park is reliant on development for it to become a reality. Without the co-operation of developers as part of the overall vision for the park, Gartloch and Gartcosh will remain unprotected, and will be slowly and incrementally destroyed by piecemeal development for profit alone.

Collective Architecture are currently in the process of undertaking an additional green network and green infrastructure planning study with GCVGNP to investigate a number of the proposed Community Growth Areas in more detail. The study will aim to provide clear spatial plans which recognise the constraints common throughout many of the CGA's including road and rail infrastructure, pylons, and gas main lines and associated buffer zones. Adjacent Sites of Importance for Nature Conservation (SINC), Sites of Special Scientific Interest (SSSI), Sites of Special Landscape Interest (SSLI) and Local Nature Reserve (LNR) designations also provide a unique mix of spatial constraint, along with opportunities for outstanding environmental quality to be on the doorstep of new communities.

The study involves consulting directly with the companies who intend to develop these areas once the economy has improved. It is anticipated that this approach of direct consultation, accompanied by detailed planning studies, will ensure that developers are provided with clear evidence that the Integrated Green Infrastructure approach will not increase costs, and will make the homes they intend to sell more marketable and profitable.

*'The same area of land can frequently offer multiple benefits if its ecosystems are in a healthy state. Green Infrastructure investments are generally characterized by a high level of return over time, provide job opportunities, and can be a cost-effective alternative or be complementary to 'grey' infrastructure and intensive land use change. It serves the interests of both people and nature.'*

European Commission -  
Extract from Green Infrastructure Strategy



*Quote and example of multi functional space*

# DISSEMINATION

## Public Lectures by Collective Architecture -

Urban Design Group Scotland  
7th March 2012 - Glasgow

MSA Research Symposium  
Mackintosh School of Architecture  
7 March 2013 - Glasgow

Doors Open Day  
The Bridge, Easterhouse  
22nd September 2013 - Glasgow

## Abstracts -

Paper submitted by Collective Architecture  
accepted for Masterplanning the Future  
Conference - Xi'an Jiaotong-Liverpool University  
Suzhou, Jiangsu Province, PR China  
18th - 19th October 2012

## Articles -

Architecture+Design Scotland Website  
11th November 2011 - Caroline Ednie  
Article - <http://www.ads.org.uk/access/noticed-board/7-lochs-wetland-park-masterplan-2>

## Websites -

[www.gcvgreennetwork.gov.uk/seven-lochs/seven-lochs-wetland-park/vision-and-masterplan.html](http://www.gcvgreennetwork.gov.uk/seven-lochs/seven-lochs-wetland-park/vision-and-masterplan.html)

<http://www.collectivearchitecture.com/projects/7-lochs-wetland-park>

## Reports -

The following completed documents are available  
for download from the internet -

### Masterplan Report -

<http://issuu.com/gcvgreennetworkpartnership/docs/120815145940-b9e507d9d9614bb4bc64dbc593e1b47e>

### Consultation Report -

[http://issuu.com/gcvgreennetworkpartnership/docs/wetland\\_park-\\_masterplan\\_consultation\\_report\\_os](http://issuu.com/gcvgreennetworkpartnership/docs/wetland_park-_masterplan_consultation_report_os)



*Visions for the 7 Lochs Wetland Park*

# DISSEMINATION

**Presentations given by Glasgow and Clyde Valley  
Green Network Partnership /  
International Resources and Recycling Institute.**

## **Draft vision and masterplan**

Central Scotland Green Network Annual Forum,  
June 2011, Falkirk, Scotland

Wildfowl and Wetland Trust Annual Conference,  
June 2011, Preston, England

European Forum on Urban Forestry Annual  
Conference, June 2011, Glasgow, Scotland  
Sigma for Water Interreg IVC project meeting,  
September 2011, Glasgow, Scotland

Peri-urban Parks Interreg IVC project meeting,  
October 2011, Aberdeen, Scotland

UK and Northern Ireland Lakes  
Network Annual Conference,  
November 2011, Perth, Scotland

Sigma for Water Interreg IVC project meeting,  
April 2012, Genoa, Italy

Sigma for Water Interreg IVC project meeting,  
September 2012, Bucharest, Romania

## **Final vision and masterplan**

SIGMA for Water Interreg IVC Project  
Final Conference  
February 2013, Thessaly, Greece

Green Infrastructure,  
Design & Place Making Conference,  
June 2013, Glasgow, Scotland

Adaptation Scotland  
'Adapting to climate change' Conference,  
September 2013, Edinburgh, Scotland.



*The Lochs within 7 Lochs Wetland Park*

# DISSEMINATION

## Competition -

A national competition was launched in September 2013 by the Glasgow Institute of Architects (GIA) in association with GCVGNP and Central Scotland Green Network (CSGN). Design professionals and students were asked to produce concept design proposals to connect two key sites within the Seven Lochs Wetland Park on either side of the M73 motorway.

Glasgow Institute of Architects -  
Connecting the Seven Lochs Wetland Park  
<http://gia.org.uk/our-work/competitions/architecture-people-and-places>

## Related Web News -

[http://www.landscapeinstitute.org/news/index.php/news\\_articles/view/competition\\_launches\\_for\\_seven\\_lochs\\_wetland\\_park/](http://www.landscapeinstitute.org/news/index.php/news_articles/view/competition_launches_for_seven_lochs_wetland_park/)

<http://worldlandscapearchitect.com/connecting-the-seven-lochs-wetland-park-design-competition/#.UmPaThZdX8s>

<http://www.architectsjournal.co.uk/competitions/competition-launched-to-connect-glasgows-seven-lochs-wetland-park/8653000.article>

## Impact -

### Esteem Indicators

- 2012 Scottish Design Awards  
Placemaking / Masterplanning Award
- 2011 Roses Design Awards -  
Promoting Excellence in Design in the UK out with London.  
Placemaking / Masterplanning Silver Award





## Acknowledgements

### Client

Glasgow and Clyde Valley Green Network Partnership  
International Resources and Recycling Institute

### Steering Group - Gartloch Gartcosh Strategic Delivery Partnership

Glasgow City Council / North Lanarkshire Council  
Glasgow and Clyde Valley Green Network Partnership  
Scottish Natural Heritage  
Forestry Commission Scotland  
Scottish Government's Housing and Regeneration Directorate  
Royal Society for the Protection of Birds  
International Resources and Recycling Institute

### Funding

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.

### Project carried out with Collective Architecture

Project Architect - Nick Walker  
with Lizzie Smith, Nathan Cunningham and Jude Barber

The project was carried out with GIS interpretation and Ecology input from Aecom and Cost Consulting by Brown and Wallace. A business plan was developed by MCM Associates as an accompanying document.

