

Management Plan for Clyde Valley Woodlands National Nature Reserve

Plan details

Start 01-Apr-2017

End 31-Mar-2028

Sign Off DRAFT

1 Site description

Clyde Valley Woodlands National Nature Reserve (NNR) is a real gem located on the very edge of Scotland's Central Belt. The reserve contains six separate woodlands dispersed along the Clyde valley between Hamilton and New Lanark. These woodlands occupy dramatic river gorges whose steep rugged sides are clothed in trees and mosses, a real escape from the surrounding landscape. Each has its own distinct character as a place for visitors.

The reserve has outstanding examples of the ancient, semi-natural, deciduous woodland which would once have covered great swathes of lowland central Scotland. In spring the woodlands come alive with colour with a carpet of bluebells, wild garlic, wood anemone and primroses. The woodlands and ravines are also home to a fascinating and unusual array of invertebrates. Beetles and hoverflies thrive amongst the deadwood whilst in the summer a rare species of caddis fly emerges from its larva. Visitors to the reserve also have the opportunity to see badgers, great spotted woodpeckers, treecreepers and dippers at close quarters.

A partnership of three organisations, Scottish Natural Heritage (SNH), Scottish Wildlife Trust (SWT) and South Lanarkshire Council (SLC), manage Clyde Valley Woodlands. Each organisation prepares separate management plans but we all work to an over-arching management strategy for the whole NNR.

South Lanarkshire Council (SLC) own and manage the woodlands at Chatelherault and Mauldslie and the Scottish Wildlife Trust (SWT) those at Nethan Gorge and the Falls of Clyde. Scottish Natural Heritage (SNH) own and manage Cartland Craigs and Cleghorn Glen. This management plan covers work at both of these sites. When we talk about the reserve in this document we are referring to both Cleghorn Glen and Cartland Craigs (and not the other NNR sites).

2 Clyde Valley Woodlands NNR for people

Close to the central belt of Scotland, the Clyde Valley Woodlands NNR is easily accessible to local people and tourists. The reserve attracts over 200,000 visitors each year to enjoy this spectacular place.

The reserve provides visitors with many opportunities to explore with each of the six sites offering a different experience.

The SLC visitor centre and facilities at Chatelherault are the starting point for a series of well managed paths exploring the woodlands of the Avon water and the rich historical interest of this area. In 2017 very significant forestry work has been undertaken at Chatelherault to restore the former broadleaved woodlands and open up magnificent views.

From the SWT visitor centre at the Falls of Clyde, in the New Lanark World Heritage Site, visitors can follow a path along the river to spectacular viewpoints over the waterfalls of Corra and Bonnington Linn. It is an excellent site for wildflowers, viewing badgers, and, if they continue to breed, peregrine falcons.

The walks at Mauldslie Woods explore the parklands of the former Mauldslie Castle while the path through the woodland at Nethan Gorge takes visitors to the dramatic Craignethan Castle, sat atop the crags and managed by Historic Environment Scotland.

Visitors to Cartland Craigs and Cleghorn Glen can follow a path along the Mouse Water. Here visitors can escape and enjoy a tranquil walk through the most dramatic of the woodland gorges with steep slopes carpeted in wildflowers beneath towering oaks.

3 Our Vision for Clyde Valley Woodlands NNR

Clyde Valley Woodlands are the most extensive complex of woodland gorges in Scotland. These woodlands contain some of the ecologically richest areas of Scotland. The woodlands of Cleghorn Glen and Cartland Craigs are integral components of this wider wooded landscape running the length of the mid Clyde Valley. They are outstanding examples of the ancient, semi-natural, deciduous woodland which once covered great swathes of lowland central Scotland.

The ancient woodlands of Cleghorn Glen and Cartland Craigs are thriving. Native tree species are abundant, thanks to our continuing programme of removing non-native species. Oak and ash make up much of the woodland.

A combination of management and natural regeneration maintains a woodland mosaic with a rich mix of species and ages of tree. Plenty of dead wood provides for the special invertebrates found here. The patchwork of open and shady areas encourages a carpet of woodland flowers in spring.

These woodlands offer visitors a tranquil and relaxing place to explore and enjoy the changing seasons. Despite the steep, craggy landscape, visitors can safely enjoy walking through these woodlands on established paths, and admire the dramatic river gorges at viewpoints. Interpretation boards and information sources, both on and off site, help people get the most from their visit.

The more established visitor locations on the NNR at Chatelherault and the Falls of Clyde, where visitor centres and facilities are available, complement the low key approach adopted at Cleghorn Glen and Cartland Craigs. These are the places where we can explain the importance and value of this precious habitat to a wide

range of audiences. Large numbers of local people and tourists visit some of these other sites.

Local people are proud to have the Clyde Valley Woodlands NNR on their doorstep. Many are regular visitors, while others take a more active part supporting events, working as voluntary wardens or monitoring the wildlife on the reserve.

4 Natural Heritage Management

Protected Areas and special features

The Clyde Valley Woodlands NNR is designated for its wildlife interest at European and UK level. Cartland Craigs and Cleghorn Glen (along with Hamilton High Parks and Nethan Gorge) form part of the Clyde Valley Woodlands Special Area of Conservation (SAC), which includes 11 woodlands in the Clyde Valley. The Clyde Valley Woodlands SAC is designated for its *Tilio-Acerion* (lime - sycamore) forests of slopes, screes and ravines.

The Clyde Valley Woodlands SAC is part of a European Union (EU) wide network of protected sites known as the Natura 2000 network. This network aims to protect those habitats and species that are rare, endangered or vulnerable within the European Community. The Natura 2000 network includes other areas across the EU that have also been designated as SACs for their *Tilio-Acerion* forests of slopes, screes and ravines. These include dramatic gorge woodlands found in France.

At a national level the Cartland Craigs section of the reserve forms part of the Cartland Craigs Site of Special Scientific Interest (SSSI), and at Cleghorn Glen, it forms part of the Cleghorn Glen SSSI.

The management of the Clyde Valley Woodlands NNR has to take account of our legal obligations and Government policy to manage the features listed as important in a European context. Where a project is likely to have a significant effect on the qualifying interests of the SAC this will be subject to 'appropriate assessment'. Only where it can be ascertained that a project will not adversely affect the integrity of the SAC will a proposal be carried forward. Likewise, we will also take account of obligations to manage features that are valued as important in a British context, as well as features that are locally important.

Feature	Protected Area
Fluvial Geomorphology of Scotland	<u>Falls of Clyde SSSI</u>
Quaternary of Scotland	<u>Falls of Clyde SSSI</u>
Beetle assemblage	<u>Hamilton High Parks SSSI</u>
	<u>Nethan Gorge SSSI</u>
Invertebrate assemblage	<u>Cleghorn Glen SSSI</u>
Mixed woodland on base-rich soils	<u>Clyde Valley Woods SAC</u>

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Feature	Protected Area
associated with rocky slopes	
Upland mixed ash woodland	<u>Cartland Craigs SSSI</u>
	<u>Cleghorn Glen SSSI</u>
	<u>Falls of Clyde SSSI</u>
	<u>Hamilton High Parks SSSI</u>
	<u>Nethan Gorge SSSI</u>
Wood pasture and parkland	<u>Hamilton High Parks SSSI</u>

Management Objectives

Objective NH1: Woodland management: To maintain a naturally dynamic semi-natural gorge woodland.

One of the problems that we face at the NNR is the presence of non-native species. In the past the amount of sycamore and beech found in the woods has increased at the expense of the native species, whilst in a few places we find invasive shrubs such as snowberry and periwinkle. Since the woodlands became a reserve we have regularly removed non-native species.

In 2001 we developed a planned approach to the removal of non-natives; zoning the woodland and targeting specific areas where our efforts would yield the best results. An added benefit of targeted thinning of non-native tree species is the creation of small clearings, ideal for the regeneration of native species, such as oak and ash. We will continue to remove non-native trees following our planned approach. Our aim is to ensure that at least 80% of the trees are native species. Some of the beech trees on the reserve are of landscape value so we will retain these. We will concentrate on removing beech saplings, some of the mature beech and sycamore (subject to the caveat raised in the next paragraph). Snowberry and periwinkle will also be removed.

However, following the recent spread of ash dieback (*Chalara*), SNH has amended its woodland management guidance with respect to sycamore. It is possible that, if the disease badly affects the abundance of ash, then sycamore may have a role to play in occupying the ecological niche partly vacated by ash. Consequently, for the moment we will be removing fewer sycamore trees. This may have implications for the overall condition of the reserve and have an implication for how we assess the woodland for Site Condition Monitoring (SCM), a national monitoring programme, until advisors agree revised feature assessments to account for a change in approach to sycamore.

Deadwood is a natural feature of a dynamic woodland. We will continue to leave felled non-native trees on the reserve where they fall as well as any trees lopped or removed for health and safety reasons. The deadwood created provides an invaluable resource for the rare invertebrates that make their home here. The steep gorges also mean that besides the obvious difficulty of access, extracting trees can cause soil erosion on the steeper slopes. So in many instances the physical removal of the fallen trees would create too much ground damage to justify their removal from the woodland.

We will investigate reintroducing some coppicing to the woodland. We shall seek woodland advice as to whether coppicing is currently appropriate. It is important that we monitor the impact of this management so that we can gauge how successful or otherwise our management has been. We can then use this information to refine our management and target areas where our efforts are best placed. To do this we will set up monitoring transects to see how the woodlands are regenerating in the clearances. In addition, we will continue with our programme of site condition monitoring (SCM) at least once every six years. Finally, we shall continue to monitor the browsing impacts of herbivores within the woodlands (chiefly roe deer) to

determine whether deer management might become necessary at some point. We shall consider whether a Deer Management Plan needs to be developed.

Projects planned to deliver Objective NH1 during life of plan:

NH1.1	Continue removal of agreed non-native trees and shrubs
NH1.2	Leave most felled timber as a deadwood resource for invertebrates and birds
NH1.3	Investigate reintroducing coppicing to parts of the reserve
NH1.5	Carry out site condition monitoring in line with national programme
NH1.6	Carry out periodic Herbivore Impact Assessments
NH1.7	Monitor woodland regeneration and related processes.
NH1.8	Consider the development of a Deer Management Plan.

Objective NH2: Biodiversity: To maintain and enhance biodiversity on the reserve

The reserve is home to a rich variety of plants, invertebrates, and birds that enjoy the woodland habitats it offers. There are at least 23 invertebrate species that are of national or local importance and our site condition monitoring results show that the invertebrate interest of the reserve is in good condition.

There are over 210 species of flowering plants including some that are scarce in the south west of Scotland such as herb paris, a UK Biodiversity Action Plan (UKBAP) species, Dutch rush and alternate-leaved golden saxifrage. Other UKBAP species on the reserve include aspen, spotted flycatcher, bullfinch, song thrush, otter, brown hare and pipistrelle bats. We have only found herb paris in one location on the reserve.

We have also been involved in an initiative to increase aspen in the woodlands. Over 800 aspen root cuttings taken from trees on the reserve are growing on at the Roslin Tree Nursery. We will liaise with South Lanarkshire Council and Scottish Wildlife Trust to assist with the planting on the wider reserve.

The woodlands are perfect for badgers and they thrive throughout. This does however mean that we have to be careful to follow legal requirements when working close to badger setts. We will continue to monitor sett locations and activity to ensure that our management of the reserve does not inadvertently affect the resident badgers.

As part of our woodland management, we will continue to leave both standing and fallen deadwood on the reserve. This will provide a rich habitat resource for many of the rare invertebrates that occur here. There is great potential for expanding our knowledge of the invertebrate populations. The last formal survey of the invertebrates was carried out in 1977. However, in 2012 we commissioned a new invertebrate survey of Cleghorn and Cartland which yielded some exciting results. This survey may influence our future management of the reserve, especially with respect to any veteran trees, which are of particular importance to invertebrates.

We will also try to make sure the riverine habitat that supports special species such as the rare caddis fly, *Adicella filicornis*, is not damaged. We will continue to monitor the invertebrate interest at least once every six years to ensure that it continues to do well.

Projects planned to deliver Objective NH2 during life of plan:

NH2.1	Leave felled timber as a deadwood resource for invertebrates
NH2.4	Monitor badger sett locations and activity (to avoid disturbance)
NH2.5	Complete SCM of invertebrate interest as required for national programme

Objective NH3: Research: To encourage research, survey and monitoring appropriate to the reserve.

Over recent years some research has been carried out in the Clyde Valley Woodlands. A number of university students have used the reserve over the years for research projects. Cleghorn Glen and Cartland Craigs provide opportunities for continued survey and research, but do not lend themselves well to larger participation events. The other woodlands of the reserve are better placed to provide opportunities for these activities.

However there are some projects which are of direct benefit to managing the reserve. Mature aspen trees naturally die off quite quickly in comparison to many other species of trees found on the reserve, which means their contribution to the woodland is more dynamic. A study of its role in the ecology of the woodland would help us to plan for its management, and the management of the reserve as a whole, in the future.

Research projects have been carried out looking at the ecological importance of deadwood within the woodland and the role that canopy gaps (clearings) play in the abundance of natural regeneration. There is scope for similar applied research in the future.

In the immediate future the reserve is well positioned to provide opportunities for studying the impacts of ash die back (*Chalara fraxinea*) on a woodland. We will also continue to welcome and encourage students who wish to carry out projects on the reserve, especially where these will be of use to the conservation management and records of the reserves.

Projects planned to deliver Objective NH3 during life of plan:

NH3.1	Monitor the impacts of ash die back and adapt woodland management accordingly.
NH3.3	Continue to encourage and welcome students who wish to carry out research projects on the reserve

Objective NH4: Historical interest: To ensure that the historical features of the reserve are maintained

The only Scheduled Ancient Monument on the reserve is Castle Qua of which only an earth mound is visible. We have always recognised the significance of Castle Qua and strived to maintain its integrity and to ensure we do not damage it during our day to day management activities.

There is relatively little of the Castle for visitors to the reserve to see, only by excavation would we see the full extent of the remains. We would like to explore the possibility of securing a grant to carry out excavations at Castle Qua. If appropriate we would like to include the local archaeological group in any excavation work. We will look at the potential for any findings to inform interpretation of the castle. Archaeological investigations are currently ongoing (July / August 2017) and have yielded some exciting discoveries; a report is anticipated in the autumn of 2017. We hope to use the findings of this excavation to inform some on site interpretation of Castle Qua.

Projects planned to deliver Objective NH4 during life of plan:

NH4.1	Ensure reserve management does not damage Castle Qua
NH4.2	Carry out appropriate archaeological field surveys and seek expert advice prior to any excavations on the reserve
NH4.3	Contact the local archaeological society to investigate ideas for further community-led excavation and future interpretation of Castle Qua.

4 Management for People

Objective VM1: Management for People: To increase awareness and understanding of the rich natural and cultural heritage of the Clyde Valley Woodlands NNR.

Throughout the Clyde Valley Woodlands NNR, we and our partners plan a zoned approach to promoting the reserve to our visitors. Chatelherault and Falls of Clyde already attract large numbers of visitors and their facilities are set up to manage high numbers. It is therefore fitting that they are the 'gateway sites' for the reserve, introducing visitors to the special habitats of the Clyde Valley Woodlands NNR. We hope that having enjoyed visits to Chatelherault and/or the Falls of Clyde, people will be inspired to visit some of the other, quieter woodlands like Cleghorn Glen and Cartland Craigs.

Establishing the coherent link between the six woodlands that make up the reserve is a difficult task and one that requires a considered approach. As a first step we introduced a 'badger' logo to help people recognise the reserve, and this is included on any new interpretation we produce for Cleghorn Glen and Cartland Craigs.

We will produce a plan to guide interpretation and promotion of the sites. We will agree overarching messages for promoting the whole NNR. We will produce a plan for interpretation at Cleghorn Glen and Cartland Craigs. This is to be discussed with the NNR partners and SNH communications colleagues.

During the course of the last Reserve Plan we produced a new CVW NNR leaflet depicting all 6 sites and a separate trails leaflet, showing a key walk from each of the sites. These leaflets should reinforce the coherence of this composite NNR. We will continue to make these available for visitors.

We are keen to raise awareness of Cleghorn Glen and Cartland Craigs through events. Working with South Lanarkshire Council rangers, the SWT and the Clyde and Avon Landscape Partnership (CAVLP) we will co-ordinate programme of activities covering the wider reserve. The CAVLP is due to end in March 2018 and we are keen to embed further NNR work and volunteering into the emerging legacy structure of the Landscape Partnership.

The facilities at Chatelherault and the Falls of Clyde visitor centre offer us a great opportunity to promote the woodlands of the Clyde Valley. These facilities will also be the focus and base for educational activities on the reserve. We have worked closely with a number of local schools, through guided walks and a variety of projects. We are keen to encourage closer links between the schools and the woodlands and to explore creative ways of making the reserve relevant to the curriculum. We would also like to explore the possibility of running some Forest Education Initiative (FEI) and health and well-being events at Cleghorn Glen and Cartland Craigs. We would like to continue and provide more momentum to this educational and health and well-being work.

Projects planned to deliver Objective VM1 during life of plan:

VM1.1	Work with partners to promote the whole NNR
VM1.2	Produce a plan for interpretation on SNH sites
VM1.3	Work closely with local schools
VM1.4	Deliver events at Cleghorn Glen and Cartland Craigs as part of a co-ordinated programme of events for the whole reserve, and publicise extensively
VM1.5	Liaise with South Lanarkshire Council education department about potential uses of the reserve for outdoor education and health and well-being. We are particularly keen to pursue health related initiatives.

Objective VM2: To maintain access and improve the quality of the visitors' experience of the woodland

Over the course of the previous Reserve Plan we made considerable improvements to the path network at Cleghorn and Cartland, as part of a Path Resilience Project. We decided not to fence the paths or introduce overly formal elements into this largely unspoilt landscape. These are natural woodlands rather than a park, and fences might detract from this sense of wildness and compromise people's experience. There are warning signs in place where there are steep slopes at the edges of the paths. Visitors are trusted to exercise their own common sense and behave responsibly in this kind of environment without artificial intervention.

Car parking is restricted with the only formal car park being the South Lanarkshire Council car park at the western end of Cartland Craigs. Whilst options for enhanced parking, based on a feasibility study we undertook, appear to be very limited we need to be aware of the possibility of the existing informal parking on Bellefield Road becoming unavailable, and be ready to explore alternatives.

With six separate woodlands forming the Clyde Valley Woodlands NNR, it is essential that all of the facilities we and our partners provide complement each other. We have installed new entrance signs and welcome information at all the main access points.

We will undertake visitor management planning to help us find solutions to some of the multi-use issues that we are currently trying to manage on the reserve. In particular, the growing concern over mountain bikes and the fact that the paths on the reserve are not suitable for mountain bike use, leading to path and habitat damage and potentially conflicts with other users.

We will ensure that any plans consider all possible user groups and address behavioural messages about hazards on the reserve such as 'steep cliffs'.

There is also potential to work with South Lanarkshire Council and other land owners to link the existing core paths through the reserve with a wider core path network around the reserve, and create a circular route.

In the near future we hope to improve the key viewpoints so that people can more easily enjoy the fantastic vistas down the gorge.

Projects planned to deliver Objective VM2 during life of plan:

VM2.1	Work with user groups to resolve access issues on the reserve, particularly inappropriate mountain bike use.
VM2.2	Develop low key viewpoints with seating at 3 locations

Objective VM3: Improve links with local community and encourage them to become more involved with the reserve.

The reserve has strong links with the local community through the Lanimer Week tradition of cutting birch twigs from the woodland and the Lanimer Marches. We will continue our links with the local community through these celebrations and by, whenever possible, working with communities of interest.

We are also fortunate to have an excellent Honorary Warden for Cleghorn Glen and Cartland Craigs. This role has become our eyes and ears for the reserve. We will continue to support this important role and discuss options and opportunities for extending this role, or other people becoming more involved, to help us increase our community engagement.

We work with volunteer groups, TCV, Butterfly Conservation and CCI to deliver practical works on the Reserve. We expect this approach to continue, and will consider other models of voluntary involvement in the future.

We will develop this work in conjunction with our Partners in the NNR. The Scotland's NNRs website has opportunities to keep visitors and local people informed and social media offers lots of ways we can keep people up to date with news and events.

Over the past five years we have worked closely with the Clyde and Avon Valley Landscape Partnership and their communications / social media platforms and expertise has helped to raise the profile of the CVW NNR. We will continue this relationship (or similar) and try to ensure we work jointly on events and promotions.

Over the course of this plan we will look to better engage the local community in managing the site. We are open to proposals from communities of place or interest, and other organisations, regarding future ownership, lease and/or management of the reserve.

Projects planned to deliver Objective VM3 during life of plan:

VM3.1	Improve our ties with the local community
VM3.2	Continue to support the Honorary Warden
VM3.3	Working with partner organisations encourage and support volunteering across the NNR.
VM3.4	Explore opportunities for improving engagement in the management of the site from communities of place or interest.

5 Property Management

Objective PM1: Property management: To manage the reserve property responsibly following best practice.

SNH owns Cartland Craigs, and a section of Cleghorn Glen. These were purchased in 1983 and 1980 respectively. We manage the remainder of the NNR under a 99-year lease from the Elliott-Lockhart family, which is due to continue until 2080.

Scottish Power has a right of access for maintenance and repairs along the wayleaves and has permission to coppice trees below and close to the power lines crossing the reserve.

We will continue to monitor regularly the condition of the paths, boardwalks, bridges, and interpretation boards, including any new infrastructure we install. We will carry out repair and maintenance work as and when necessary.

The Honorary Warden and Reserve staff regularly check fences to ensure they are in good repair. Fence repairs are carried out jointly with the relevant adjacent landowners unless trees from the reserve damage the fences. In these circumstances we are responsible for their repair. There is an up-to-date fire plan for the reserve and we carry out quarterly inspections of all visitor facilities.

Projects planned to deliver Objective PM1 during life of plan:

PM1.1	Maintain all visitor infrastructure (trails, boardwalks, viewpoints etc) in good condition for visitors.
PM1.2	Carry out quarterly safety and condition assessments of all visitor infrastructure and keep accurate records.
PM1.3	Ensure property and equipment is maintained and conforms to Health & Safety Regulations including risk assessment and fire plan reviews.
PM1.4	Ensure payments are made for Nature Reserve Agreement and other annual payments.
PM1.5	Path Improvement project phase 4 (and future improvement projects).

6 Planning and reporting

Objective PR1: Ensure management planning is adaptive and effective

We manage all our sites on a planning cycle. Reserve staff are responsible for in-year and annual reporting. They must ensure they complete all appropriate reserve planning and reporting using internal SNH systems.

PR1.1	Update annual budget in Q3 for bidding.
PR1.2	Report on finance and projects in corporate systems
PR1.3	Update annual report at least every quarter and finalise by end of Q1 of following financial year.