

Barnwood Park and Arboretum
Management Plan 2019–2023



*Many thanks to friends group
member Pete Wilcox for providing many of the photographs
of the Park and Arboretum*

Please see www.barnwoodarboretumpark.yolasite.com for more information.

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1.0 Park Overview

1.1 Vision Statement

To conserve and enhance Barnwood Park and Arboretum with a high sensitivity to its historical context, ensuring that the beauty and diversity of the area is maintained for future generations to enjoy.

1.2 Site Description

Barnwood Park and Arboretum (Figure 1) are situated to the east of Church Lane in the City's Barnwood Ward. Located in one of the City's more affluent areas, Barnwood Park and Arboretum are surrounded by mostly detached, privately owned housing.

The park and arboretum lie parallel to one another with Wotton Brook forming a dividing line between them. The arboretum is located north of the park with residential gardens encompassing the perimeter whilst to the south of Barnwood Park lies a large dry balancing pond which when not flooded provides a valuable contribution to the city's stock of public open spaces. The grid reference is SO 860 177. Postcode for the site is GL4 3JB.

A small Victorian Chapel is located near the Church Lane entrance of the park. Both the park and arboretum are blessed with a legacy of trees planted extensively from the Victorian and through Edwardian times up until the early 1950's. Trees of note include numerous impressive Wellingtonias, *Sequoiadendron giganteum*, a veteran Indian Bean tree, *Catalpa bignonioides*, a rare Variegated Beech, *Fagus* sp, mature Turkey Oak, *Quercus cerris*, Swamp Cypress, *Taxodium distichum*, two old mulberry, *Morus nigra*, two Dawn Redwood, *Metasequoia glyptostroboides*, one of which was planted for the Queen's Coronation in 1952. In the arboretum anthills are located in the unimproved grassland and a riparian habitat running adjacent to the brook encourages a rich tapestry of wildlife to the area.

1.2.1 Facilities

The park and arboretum are well used throughout the day by local residents and there is an increase in visitor numbers at lunchtime when staff from a large company located near to the site stroll through. Local nurseries and child minders regularly bring small groups of children to the park, and during milder periods the local primary school will visit.

The park has a formal path which runs from the Church Lane entrance right through to a cycle path at the east end of the park encouraging year round passive recreation such as dog walking, picnicking, watching wildlife or strolling. The park has six benches located around the site and they are well used throughout the year. There is also a rustic bench which has been carved from a fallen tree.

The arboretum also has a number of more informal paths which allow year round access to the site. Since 2012 the Friends have built relationships with local rare breed small holders resulting in the arboretum being grazed by Dexter cattle in the summer and followed by sheep in the winter. The livestock are a popular visitor attraction.

The balancing pond, when dry, provides a useful open space for dog walking and informal ball games. There is a single set of Rugby World Cup 2015 rugby posts installed on the driest

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section of the balancing pond, which have been installed to mark Gloucester's hosting four Rugby World Cup fixtures. Native tree planting took place in part of the balancing pond during 2018 in order to increase the biodiversity of the area.

A notice board and a separate interpretation board are located at the Church Lane entrance to the park, and a welcome sign and interpretation board have been erected at the entrance to the arboretum. There are also smaller welcome signs located at all the formal entrances to the park.



Figure 1: Barnwood Park and Arboretum Interpretation Board located at the Church Lane entrance

The features and facilities of Barnwood Park and Arboretum are listed below:

Facilities	Number
Benches	7
Litter Bins	4
Dog Waste Bins	5
Single Gates	4
Double Gates	4
Bridges	2
Interpretation Boards	3
Notice Boards	3
Entrance 'Welcome' Signs	4

Table 1: Facilities and features in Barnwood Park and Arboretum

1.2.2 Access

There are four vehicle access points to the site, three of which are situated along Church Lane. They are located by the balancing pond, the park and the arboretum. The fourth access point is to the east of the park off Cherston Court. All these entrances are kept locked and used mostly for access for maintenance vehicles, and occasionally to bring

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equipment onto site when events are held. Amey (Gloucester City Council's Streetcare Service provider), the City Council, tenants of the chapel and Barnwood Park and Arboretum Friends group hold keys to these gates.

Two of the vehicle entrances, the access from Church Lane into the arboretum and the Cherston Court access, have recently been improved to make vehicle access easier.

There are four pedestrian access points into the park, one on Church Lane, another on Cherston Court, a third links to a path/cycle way located behind Newstead Road and the fourth goes from the Church View Drive estate located off Church Lane via Spire Way into the dry balancing pond that adjoins the park. There is a formal path running through Barnwood Park which links to a footbridge providing access to the arboretum. The arboretum entrance has a stock proof gate that is wheelchair and pushchair accessible. The informal tracks are covered in grass or chippings and are normally suitable for wheelchairs and pushchairs in all seasons.

Due to set covenants on the land (see appendix 1) the arboretum has restricted access and is closed at 7pm in summer and at 4:30pm in winter. Barnwood Park and the dry balancing pond are open to the public at all times.

The park is easily accessible by bus. The number 10 runs along Barnwood Road, a bus stop is located by the north end of Church Lane which is approximately 250 metres from the park. Alternatively the number 5 bus runs along Metz Way which crosses Coney Hill Road, south of Church Lane. Directional signage to the park and arboretum is now located on Barnwood Road facing down Church Lane.



Figure 2: Barnwood Park and Arboretum

1.3 Site History

Barnwood Park and Arboretum were once part of a larger arboretum and formal parkland that was attached to Barnwood House. Barnwood House was built by Sir Charles Hotham, and was bought in 1813 by David Walters who acquired land around the house and converted it into a large estate with formal landscaping and trees. David Walters died in 1833 and the estate was inherited by his son James Woodbridge Walters who died in 1852 heavily in debt to the County of Gloucester Bank. The estate consequently fell into the ownership of the bank.

In 1858 the bank agreed to sell Barnwood House and 48 acres of land to a committee of subscribers who wanted to establish a private mental hospital (see figure 3 below). The existing house was converted into a residence for the medical superintendent and two large

wings were added on. The existing gardens were extended down to the brook with gravel walks and additional trees and shrubs.



Figure 3: *Barnwood House Hospital 1867*

The number of patients increased steadily over the following years and the finances were so healthy that additional accommodation and amenities were provided including a private chapel and cricket ground.

The introduction of the National Health Service in the 1950s resulted in a steady decline of patients from the hospital. In 1968 the hospital closed and most of the land was sold for development. The site of the cricket pitch was dug out to form the balancing pond. The central block survived as a private house until 2001 when the site was developed for housing with the remaining land becoming Barnwood Arboretum.

The Arboretum was opened to public access in June 2002 and gained local nature reserve status soon after. The local residents (now Friends) were instrumental in the creation of the Local Nature reserve as a “green island” which could not be developed due to set covenants on the land. Please see Appendix 2 for a more detailed account of site history.

Notable points of historical interest still remain in situation today. The Chapel is located in Barnwood Park -this building is leased and currently used as a gym. Sections of the wall that were located in the grounds of the hospital may be found within the arboretum. An impressive legacy of trees continue through the site contributing a tremendous amount to the current landscape.

1.4 Strategic Framework

Public open space (POS) is a vital component of the city's urban fabric, creating places for formal sport and informal recreation as well as providing numerous environmental benefits and valuable places for wildlife. The city has a wide variety of parks and open spaces ranging from intensely managed sports pitches to nature reserves and a country park.

In 2014, following public consultation, the City Council published its Public Open Space Strategy to cover the period from 2014 to 2019. The strategy sets out policies and proposals for the protection and enhancement of the City's open spaces. There have been significant changes since the previous strategy was adopted in 2001.

The Barnwood ward, where the site is located, meets and exceeds the council's open space standard of 2.8ha per 1000 population. The complete Public Open Space Strategy can be viewed at the Gloucester City Council's website.

The Gloucester City Council Open Space Strategy 2014 – 2019 vision statement reads ***'To create and manage a diverse network of good quality, sustainable and accessible open spaces to serve the needs and aspirations of the residents of Gloucester.'***

The protection and enhancement of Gloucester's green infrastructure is a key component in the City's strategic planning policy framework. The emerging development plans for the City are the Joint Core Strategy (JCS) for Gloucester City, Cheltenham Borough and Tewkesbury Borough and the Gloucester City Plan (GCP). Together they will include policies to ensure that access to quality open spaces for all residents is well considered. More information is available at www.gct-jcs.org.uk and www.gloucester.gov.uk/cityplan.

1.5 Partnership Working

Day to day operational maintenance activities across grounds maintenance and the arboriculture service is performed within the neighbourhood partnership by Amey on behalf of Gloucester City Council. Amey are Gloucester City Council's Streetcare Service provider.

Environmental maintenance and cleansing are undertaken in partnership between Amey, Neighbourhood Management Services at Gloucester City Council, the Countryside Unit and the Friends Group. These works are also undertaken with various community groups and local individuals.

The partnership is fully committed to integrating operational requirement to fit the changing environmental needs of the site, typically coordinating mowing to integrate with community events. Amey also cut and collect grass in the orchard to assist development of a wild flower meadow there.

Future planning and development as regards maintenance changes are considered when seasonal landscape works are undertaken and embodied within the seasonal programme of works to ensure the park benefits from economies of scale.

1.6 Health and Safety

The health, safety and environmental (HS&E) considerations of Barnwood Park and Arboretum are fully considered on each and every occasion the site is visited for operational works. HS&E implications are both monitored and recorded by each operational individual and Site Specific Risk Assessments (SSRA) are completed when needed. Service commodity including consumables is recorded when used at Barnwood Park. Copies of SSRA are available for safety auditing within the operational management office at Amey. For example all tree works are undertaken by Amey, very often under the instruction of the City Council's Tree Officer, given the sensitivity of the site.

1.6.1 Care of Volunteers

The volunteer base on this site is well established - the group hold work mornings and are insured to do so without the presence of a council officer.

The Friends Group carry out their own risk assessments based on the work that is to be undertaken using the format provided by Gloucester City Council. A pre job brief is carried out before the work is started. Volunteers share their own tools.

For any new activities or ones requiring assistance with machinery the Friends often enlist help from the Countryside Unit or the City Council's Tree Officer.

First Aid training has been provided for a number of the Friends who attend the work mornings.

1.6.2 Security

Barnwood Park is an open and freely accessible open space asset, available seven days per week all year. The site, by its local geographic and landscape setting is 'open for access'. Security arrangements for Barnwood Park are limited to monitoring of un-authorised behaviour and usage.

Additional security of 'access' is limited to specific perimeter boundary fences and adjoining third party boundaries and gated access points.

The Friends Group and the City Council also rely upon the public to report unauthorised use although very often the matter will be identified and reported by a member of the Friends Group given their high frequency of visits.

There is very little evidence of anti-social behaviour in the park and arboretum.

Gloucester City's PCSOs (Police Community Support Officers) patrol all the city parks and open spaces during their daily routines, so adding additional resources and integrity to the security aspects.

1.7 Demographics

The population of Gloucester District is estimated at around 121,700 (source MAIDEN and Census of 2011). The ward of Barnwood in which Barnwood Park and Arboretum are situated held 10,315 residents in 2011.

1.8 Community and Voluntary Involvement

Friends of Barnwood Park and Arboretum:-

The Friends of Barnwood Park and Arboretum was set up in 2002 and is made up of local residents in the main. There are 86 people on the mailing list and 43 of these are active members i.e. come to work sessions. Some Friends help by regularly using the site and several Friends inspect the park and arboretum daily and look out for problems. They take action when appropriate or pass the information on to others such as the council, police or Environment Agency. The Friends hold about 12 work mornings each year when they carry out activities to support the park and arboretum as a place for recreation and nature. The Friends' activities include planting, coppicing, pruning, path maintenance and the removal of invasive vegetation. A list of the Friends activities is shown in the appendices.

In addition to caring for the park and arboretum the Friends help the council care for all who use these areas. This involves gathering information on defects and taking the appropriate action. In times of high rainfall the Friends monitor the trash screen condition and notify the Council when it needs clearing. The Friends clear the overflow grids in the Arboretum when they become blocked.

The Friends hold regular site meetings with the Council to discuss proposed developments in the park and arboretum. The City Council Open Spaces Officer, responsible for Parks and Open Spaces, is in regular contact and the Tree Officer is always willing to give advice and support, as well as leading sessions on tree care.

The group continues to increase its knowledge of plants and wildlife by inviting experts to lead sessions on trees, birds and wildflowers.

The Friends group is integral to the care and maintenance of the park and arboretum and has been actively involved in the production of the management plan for the park and arboretum.

The Friends also arrange an annual production by the Rain or Shine Theatre Company in the park.

Bee Guardians

In 2011 the Bee Guardian Foundation visited the arboretum, carried out a survey and hosted a bee house making workshop. They attended the Barnwood Fun Day and led a bee identification walk. They supported and championed the planting of bee friendly flower beds in the Park during 2011 and this has continued in the years following.

In early 2014 the Friends built an insect hotel at the eastern end section of the dry balancing pond, which now has the grass left longer to encourage insects and pollinators.

In the autumn of 2016 the Friends changed the annual seeding of the flower bed to planting bee and pollinator friendly perennial plants.



Figure 4: Bee and pollinator friendly perennial planting.

Local Employers

Several local companies regularly use the park and arboretum for team building events, which are carried out in conjunction with the Friends Group. EDF Energy has provided pavers for the vehicle access track into the arboretum via Church Lane, donated and planted 1000 crocus bulbs and helped with tree planting and tidying the site. The image below shows the vehicle access track being laid by the Friends.



Figure 5: The improved vehicle access point from Church Lane into the Arboretum

1.9 Marketing

The Friends of Barnwood Arboretum take the lead in the marketing of the site. A link from the City Council web site directs to The Friends website www.barnwoodarboretumpark.yolasite.com. The Friends maintain and update this website regularly. The website contains information on up and coming events and also photos from local photographers. The Friends and City Council are keen to encourage involvement in the park and arboretum by people of all ages and from all walks of life.

Events are often publicised via local radio, posters in the park, the website and local magazines.

The Park and Arboretum has a tree trail leaflet which is readily downloadable from The Friends of Barnwood Arboretum website. We are also planning to produce a leaflet containing information on the history of the site.

1.10 Events

The Friends aim to make the park and arboretum available for all to enjoy. The arboretum requires more in the way of maintenance than the park and the Friends hold regular work mornings to attend to the upkeep of the site, please view **Appendix 3** for calendar of events. The activities include planting, coppicing, tree care, bulb and wild flower planting and path maintenance.



Figure 6: Buttons Kindergarten and a member of the Friends planting wild flower seeds on top of the insect hotel

Since August 2009 the Rain or Shine Theatre Company has given annual performances in the park.

In 2007 the Friends were successful in obtaining a Big Lottery Fund grant to improve and publicise the Arboretum. Many events were held by the Friends and the community. One community event involved a local artist coming to the Arboretum for the day and encouraging artists of all ages to use the Arboretum for inspiration to paint or draw. The Friends also hosted a bird box-building day for the community and 30 bird boxes were made.

The Friends have undertaken many planting projects in the park and arboretum, one of which was the creation of an orchard using local apple varieties. The trees were donated by the City Council's free tree scheme and were planted as part of the BBC Tree O'clock record attempt.

In January 2010 the Friends group took part in the RSPB's Big Garden Birdwatch in the park and arboretum for the first time, inviting local people to join in. This has now become an annual event and, a record of the results may be located in **Appendix 4**.



Figure 7: Audience enjoying their picnics prior to the Rain or Shine performance



Figure 8: Rain or Shine Theatre Company production in the park

1.11 Awards and Recognition

The arboretum achieved Local Nature Reserve status in 2002 and was awarded a Green Flag its first Green Flag in 2005.

A Bees' Needs award was also achieved in 2015 and 2016.

1.12 Finance and Funding

Capital injection to ensure onward progression of site improvements is becoming an increasing challenge to both the local authority and its partners.

Section 106 funding is slowing down and competition for funding allocation is increasing. However, section 106 funding will be sought for capital injection into future regenerative projects within the park.

Through shared and collaborative working with partners, we are making better use of our site maintenance budgets to direct resources to site specific tasks that otherwise would not have been able to be completed without capital injection.

Typically better management of site funding has enabled us to:

1. Enrich grass land through regime changes and machinery types.
2. Improve hard porous surfaces through enhanced maintenance practices previously not included or afforded.
3. Increase biodiversity through urban meadow development.
4. Generally improve footpaths and vehicle access points.

In addition the many organisations and people who offer their help free of charge provide huge amounts of added value to the whole site.

1.13 Inspections

A site inspection is undertaken annually with the Friends, Neighbourhood Management Services team from Gloucester City Council and Amey.

Litter and dogs bins are inspected weekly when collections are undertaken.

For continual feedback on day to day maintenance and upkeep of the open space, the Friends volunteers walk around the site daily and act as the park's eyes and ears. Any problems that are noted are fed back to the City Council for action.

1.14 Additional Information: Developmental

Planning Policy Guidance note 17 (PPG 17) recommends that an analysis of any park and open space should allocate a *primary use or purpose* to any one park and that all decisions should follow from this. Generally this has proved untenable throughout the country. This is because the PPG 17 approach does not correspond to the reality of the way people use open space or of their preferences.

Barnwood Park is designed as an attractive landscape environment to attract local communities. It has developed significant wildlife value with waterfowl and abundant species of wild birds. Importantly, the presence of both interests adds value to each and the co-existence of users with a variety of enthusiasms adds social value to the park.

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Managing this site for singular use would not be good recreational management or land use practice for this site. Moreover this example illustrates how difficult it would be to come up with a consistent and justified way of identifying “primary purpose” and so attracting specific funding. Onward investment and site development moving forward will be target specific based upon user need.

2. Maintenance

2.1 Maintenance Diary - SEE COLOUR CODE BELOW FOR OWNERSHIP DUTIES

INDICATIVE ANNUAL WORK PROGRAMME AT BARNWOOD PARK and ARBORETUM FOR LANDSCAPE AND GROUNDS MAINTENANCE

ITEM	J	F	M	A	M	J	J	A	S	O	N	D	comment
1.0 Grassed Areas													
Grass Cutting - Amenity and Lawn Areas				x	x	x	x	x	x	x			
-Conservation/ special grass							x		x				
-Grazing of Arboretum	x						x	x	x	x	x	x	
2.0 Tree Maintenance													
Semi and Mature Trees - remove Suckers	x												
Mature Trees - see tree survey recommendations													
3.0 Formal Hedges													
- cut formal hedges								x	x				
4.0 Informal Hedges													
- cut informal hedges	x	x								x	x	x	
5.0 Gravel Paths													
- maintain edges	x												
- maintain surface levels	x	x					x			x	x	x	
6.0 Streams Brooks and Water Course Inspection													
- undertake inspection	x	x	x	x	x	x	x	x	x	x	x	x	
- clear obstructions	x	x	x	x	x	x	x	x	x	x	x	x	
- clear drainage channels	x	x	x	x	x	x	x	x	x	x	x	x	

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7.0 New hedge planting - as agreed with Tree Officer	X	X									X	X
8.0 New Tree Planting / shrub planting - as agreed with Tree Officer	X	X	X	X	X				X	X	X	X
9.0 Litter & dog bins - empty and cleanse	X	X	X	X	X	X	X	X	X	X	X	X
10.0 Furniture - cleanse and inspect	X	X	X	X	X	X	X	X	X	X	X	X
11.0 Litter - litter removal	X	X	X	X	X	X	X	X	X	X	X	X
12.0 Security - Integrity of fencing and gating	X	X	X	X	X	X	X	X	X	X	X	X
13.0 Bird Box inspections	X									X	X	X
14.0 Health and Safety Audit - Annual H&S integrity inspection								X				
15.0 Quarterly infrastructure inspection - gates / paths / furniture / signs	X			X			X			X		
16.0 Annual tree survey						X						

Key

X In total column indicates the indicative period of maintenance

TBA indicates where a task will need to be agreed / scheduled or require injection

Notes: Specification of works may be located in Appendix 5

Notes that specific site risk assessment to be undertaken before hedge-cutting to determine any birds nesting

Tasks identified in blue = Amey

Tasks Identified in Red = Friends of Group

Tasks Identified in Green = Countryside Unit

Tasks identified in Black = Joint working

Tasks identified in 'light/black text' Neighbourhood Management **Grey**

2.2 Site Statistical Data

Ref	Description	Unit	Measure
1	Gravel Footpaths	m2	700
2	Footpath edges	Lm	644
3	Triple cutting	m2	15,182
4	Gang mowing	m2	11,877
5	Trimming out	m2	850
6	Dog waste bins	unit	5
8	Litter Bins	unit	4
9	Informal Hedge cutting	m2	288
10	No. information boards		5
11	Drainage outlets/ grills		1
12	Stream pinch points	unit	4
13	Area of conservation grass	ha	1.45
14	Area of meadow (incl' cut freq' / type)	ha	1
15	Area grazed	ha	1.45
16	No. of gates	Unit	4
17	Length of fencing	m2	160
18	No. of buildings	Unit	1
19	Bridges / inspections	Unit	2
20	Hibernaculums	Unit	6
21	Mown paths		1
22	Bird boxes	Unit	6
23	Signs	Unit	4

2.3 Supporting Information

2.3.1 Grazing of Arboretum

Mechanical mowing of the more sensitive areas of species rich grassland should not be undertaken as it would damage the nests of the resident Yellow Ants (*Lasius flavus*). These nests as well as supporting diverse herb assemblages, are also used as part of the lifecycle of the Common Blue Butterfly (*Polyommatus icarus*). Vital scrub and grassland management in the arboretum is now undertaken by cattle and sheep. These are loaned by local livestock keepers. The cattle arrive at the end of July and stay for approx 60 days and are then followed by the sheep and these usually stay until January. The Friends check on the cattle and sheeps' wellbeing every morning and evening during their stay. During the summer, from end of July to the end of September, the arboretum is grazed by Dexters. Once the cattle leave the arboretum they are followed by sheep which graze the arboretum until late December/early January. The sheep are provided via St.James City Farm. Breeds used for grazing include Cotswold, Hebridean and Jacobs. Both the cattle and sheep are very popular with visitors.

Many of the trees in the arboretum were already protected from grazing animals, however as a precautionary measure some additional tree works were carried out by the Friends prior to the introduction of the cattle and sheep.

In 2016 the dogs on leads order that exists for the arboretum was enforced with new signage at the entrance to the arboretum.



Figure 9: Cattle grazing the Arboretum.



Figure 10: Sheep grazing the Arboretum

2.3.2 Brambles

There is an ongoing need to control the spread of brambles and nettles in the arboretum. This work is carried out in consultation with the Friends Group by the Countryside Rangers using a flail mower. In order to ensure continuity of nesting habitat for small birds in the following spring areas of bramble are mown in rotation in late autumn or winter.

2.3.3 Arboretum Paths

Wood chip is used on the paths in the arboretum; these are replenished by the Friends and other community groups as required. EDF and NCP have helped with spreading the chippings

2.3.4 Maintenance of Buildings

In Barnwood Park a Victorian Chapel remains from the former estate. This is currently leased to Severnside Weightlifting Club. The club lease was renewed on the 1st April 2011; issued with a 15-year lease. The club are held responsible for ensuring the building is tested for health and safety requirements and are not allowed to make any structural alterations to the building. The club must also ensure that they repair and keep the chapel in good condition, both internally and externally, including any pipes, services etc serving the property.

The club have a statutory right to renew their lease at end of term and it would only be terminated under fairly limited and unlikely grounds. If the club declined to renew the lease they would need to ensure the building was left in good repair and condition.

2.3.5 Tree Maintenance

A comprehensive tree survey for both the Park and Arboretum has been produced by Amey in conjunction with the City Council's Tree Officer . Copy available on request.

The lack of planned planting from the 1950s until the end of the century resulted in an uneven age structure of specimen trees across the arboretum and park. When the arboretum was opened in 2002 it was characterised by a mix of mature and aging specimen trees and a resurgent shrub / young tree layer of native and invasive species such as bramble, blackthorn, *Prunus spinosa*, ash, *Fraxinus excelsior*, sycamore, *Acer pseudoplatanus*, poplar, *populus sp*, that developed as the site became unmanaged.

Since 2002, with the founding of the Friends of Barnwood Park and Arboretum new trees have been planted in the arboretum to redress this imbalance and ensure a continuity of specimen tree cover. The aim of the tree planting is to establish a range of species that enhance the feel of a "Victorian collection"; that is unusual or specimen species from around the globe. To date, new planting includes Monkey Puzzle, *Araucaria araucana*, Wollemi Pine, *Wollemia nobilis* and Gingko, *Gingko biloba*. The Friends are also taking part in the Great British Elm Experiment and the elm sapling is registered on the national database of new trees developed from disease resistant stock.

To ensure continuity an Indian Bean tree and a Dawn Redwood have been planted so that when the existing old Indian Bean and Dawn Redwood decline, replacements are already thriving.

With support and training from the City Council, the Friends have ensured that all new tree planting survives by suppressing vegetation growth around the bases. This is achieved by using a combination of mulching and weeding. The friends also water the trees, erect protective fencing around them and carry out formative pruning. Although natural methods are employed in the arboretum wherever possible, glyphosate is used occasionally around the base of young trees.

It is necessary to dig up saplings from the grassland every year to prevent it being taken over and shaded out by young trees in the longer term. Sycamore, *Acer pseudoplatanus*, is particularly invasive and together with Horse Chestnut, *Aesculus hippocastanum*, produces a thick layer of leaf litter which would blanket the grassland.

2.3.6 Wotton Brook

Wotton Brook, that travels through the site, has been designated “Main River” status by the Environment Agency (EA) due to its flood risk significance. As such the EA are the Land Drainage Authority and are responsible for issuing Flood Drainage Consent for works within 8 metres of the watercourse and carrying out enforcement under the Land Drainage Act. The EA and City Council work closely to resolve any issues and carryout relevant works.

The City Council also have Riparian responsibilities of the banks and up to the centre line of the watercourse on the Barnwood park side of the brook as do residents on the opposite side of the watercourse.

On occasions the brook can look cloudy (and smell) due to a number of misconnections (usually from residential properties) discharging grey water into the surface water drainage which ultimately ends up in the brook. These misconnections are usually the result of extension works and the resiting of sinks and washing machines/dishwashers which are wrongly connected into the surface water drainage (drain pipes). Investigation works will be undertaken to trace and remediate these misconnections with the cooperation of residents when they occur.

There is no formal schedule for de-silting the brook, and due to the brook quickly silting up again it is unsustainable and is of little advantage.

A number of water samples are taken by the EA from the Wotton brook from below the Trading Estate to Cole Bridge on a regular basis to analyse the chemical and biological content of the water.

In April 2009 works were carried out to a 30 metre section of bank opposite the rear of properties (on the park side) to the eastern side of the park. The works were to prevent further erosion and to improve the flow of water in addition to providing extra capacity during heavy rainfall events.

The works were carried out to two sections of the bank, and included:

Removal of soil from the top of the bank that was causing slippage, and the creation of a two-staged channel (designed to ease flow during normal times and provide extra capacity during high flows) and the bank was planted up with wetland plants to help knit the bank together. In addition the laying of large stones to the base of the bank was topped with pre planted coir roll. The coir rolls were pegged in place allowing the pre planted wetland plants to grow up through the biodegradable coir roll, which decompose when the plants are well established.

At a second section similar works on an outside bend were carried out but in addition willow was planted up on the two staged channel ledge to help strengthen and knit the banks together and to provide additional habitat to encourage wildlife. These works will ease flow during normal times and provide extra capacity during high flows.

The bank erosion was not seen as a flood risk but there were concerns over the banks slipping into the watercourse during or after high flow incidents. A local company that specialises in bio-technical and soft engineering solutions completed the works.

The more recent planting of reed beds and water plants has been undertaken to enhance the existing marginal planting and localised narrowing of the brook increases water flow which in turn reduces the build up of silt but **at** the same time increases wildlife habitat and has ecological value.

The previous trash screen at the west end of the park was replaced in 2016 and this will reduce the continual risk of blockages. The new trash screen will improve conveyance of flows during heavy rainfall/flooding events and will incorporate a platform for operatives to work from.

Figure 11: *New trash screen after heavy rainfall*



Figure 12: *New trash screen during normal conditions*



3.0 Landscape and Maintenance Issues and Actions

3.1 Signage

Small 'welcome' signs have been designed and installed at entrances in order that visitors are aware that they are in the park.

Directional signage have been installed on Barnwood Road, facing down Church Lane, directing to the park and arboretum.

'Danger, deep water' signs have been installed around the balancing pond.

A new 'dogs on leads' sign was installed at the entrance to the arboretum in 2018

There are now three information display cabinets, which also act as notice boards, one being located at the entrance to the park off Church, one at the entrance to the arboretum and the third at the east end of the park.

3.2 Environment and Sustainability

The orchard area to the East of the park has previously been on a bi-weekly cut regime. From 2011 it was decided to change to a once annual cut and collect to promote insects and wildflowers. The Friends Group have started to introduce Yellow Rattle to a small area of the orchard and wildflower plug plants which were grown from seed have now been planted. Pipistrelle bats are regularly seen in this area and the long grass ensures a good supply of insects is available.

Since 2010 the Friends have taken part in The Big Garden Birdwatch, monitoring the differing species of birds that come into the park and arboretum. This has become an annual event which will help monitor the bird population with the Friends also now taking part in the annual Big Butterfly Count for Butterfly Conservation. The Friends now host two moth events per year and send the records to the Gloucestershire Moth Recorder. There were no records for this site before 2014.

A wildflower monitoring group was formed by a small number of interested members of the Friends in 2014, this group meets during the spring and summer each year.

The Friends have always demonstrated keenness to use natural methods in the arboretum, for example, caring for young trees by using matting to suppress weeds, using woodchips for the paths, and harvesting bird cherry stakes for use as fence posts. The Friends do not use peat in any of their activities. Prunings are generally left on the site as habitat for insects and small mammals. A deadwood hedge has been constructed around the wildlife pond. This is an approach that the City Council is keen to support and develop further.

The Friends Group have now created a wildlife pond in the arboretum. They consulted with the Environment Agency, TCV, Gloucestershire Wildlife Trust and City Council officers and grant funding for the wildlife pond was obtained from Gloucestershire Environmental Trust Company in 2013 with the pond being completed in September 2014. The pond was relined in 2016 as it was not managing to retain water.

3.3 Community Involvement

The Friends group has been a consistent presence in the life of the arboretum since its formation in 2002. The Friends communicate with Gloucester City Council, the Countryside Unit, local councillors and other interested groups to promote the arboretum as a green resource for the benefit of all visitors. The Friends group are a prominent force in the care and maintenance of the site and there is a strong relationship between the Friends and the City Council.

The Friends now organises an annual visit from the Rain or Shine Theatre Company in the park and sometimes a community day. In 2013 and 2014 the Friends held Love Parks Week events with activities to engage local people with nature.

Both the Friends and City Council are keen to involve local schools and nurseries in the park and arboretum. A number of local primary schools and nurseries regularly visit. When the wildlife pond is established contact will be made with local schools to make them aware that this facility is available for pond dipping.

The Friends hold regular work mornings, the activities of which are detailed on the notice board in the park and the website.

3.4 Maintenance of Buildings, Equipment and Landscape

The gradient of the existing compact gravel path at the Church Lane entrance was reduced in 2016, making use of a mini digger that was on site when the trash screen was replaced. The path is now more easily accessible for wheelchair users.

The orchard area of the park is being developed as a wildflower meadow. A mown path is maintained to further encourage its use. Bats can be observed in this area at dusk in the summer.

In recent years the main footpath through the park has been resurfaced, new litter bins have introduced, the vehicle access points from Church Lane into the arboretum and from Cherston Court into the park have been improved.

A single set of Rugby World Cup 2015 rugby posts have been installed in the dry balancing pond. This is one of ten sets installed at various sites across the City and is in recognition of Gloucester being a host city for four Rugby World Cup fixtures in 2015. They are used for informal play (see figure 14).

The winter of 2013/2014 saw the loss of some trees in the park and arboretum due to very wet and windy weather. In one overnight incident an Incense Cedar tree fell, striking the side of the chapel on the way down resulting in damage to the chapel. Repairs to the chapel roof took place in September 2015 and the old chimney was removed in December 2015. The resulting fallen tree trunks have been salvaged and are currently located in the park and used for informal play and seating. The Friends submitted a grant application to Gloucestershire County Council 'Active Together Fund' to have a Lime tree trunk professionally carved and this was undertaken in August 2015 (see figure 15).



Figure 13: The wildlife pond in the Arboretum, relined in 2016



Figure 14: The Rugby World Cup 2015 rugby posts in the dry balancing pond; and figure 15: The carving in the park

4.0 Action Plans



Mystery Shopping - Interim Quality Assessment

Answer the questions below providing detailed feedback that will benefit the site. All 'No' responses require comments.

Name of Site: Barnwood Park and Arboretum

Managing Organisation: Gloucester City Council

Date, time and duration of visit: Tuesday 31st May, 10 – 11am

Weather conditions: Warm, dry and cloudy

Name of Judge: Jo Lewis

1. Was the site easy to find e.g. directional signage?

Yes No N/A

Comments:

The site was well signed off of Church Lane

2. On approaching the site were you encouraged to enter?

Yes No N/A

Comments:

The site looked interesting and inviting and there was welcoming signage.

3. Were entrance signs visible announcing the site and did they provide contact details for complaints/praise?

Yes No N/A

Comments:

4. Were entrances safe and accessible to people of differing abilities?

Yes No N/A

Comments:

5. Were entrances and car parks clean, litter free and well maintained?

Yes No N/A

Comments:

The site was completely litter free (except for a small amount in the stream which had probably been washed down from elsewhere).

6. Were signs throughout the site of good quality, well maintained, and displaying up to date and relevant information?

Yes No N/A

Comments:

7. Were paths in good condition, clean, unobstructed and accessible to people of different abilities?

Yes No N/A

Comments:

8. Were any staff on site easily identifiable to the public, knowledgeable and approachable?

Yes No N/A

Comments:

No staff were on site.

9. Were facilities such as toilets, cafés etc. clean, well maintained and open as advertised?

Yes No N/A

Comments:

No such facilities on the site.

10. Were buildings, structures and features such as walls fences etc in good condition and free from graffiti?

Yes No N/A

Comments:

No graffiti was evident.

11. Was all children's play equipment well maintained and clean?

Yes No N/A

Comments:

12. Were benches, bins etc. well located, clean and in good condition?

Yes No N/A

Comments:

13. Was safety equipment present, fit for purpose and in good condition (if provided)?

Yes No N/A

Comments:

14. Was lighting, CCTV and other security measures in good condition (where provided and able to be assessed)?

Yes No N/A

Comments:

15. Did litter bins appear to be emptied regularly and was the site litter free?

Yes No N/A

Comments:

16. Was dog and other animal fouling adequately controlled?

Yes No N/A

Comments:

I saw no evidence of dog fouling although there were dog walkers on site.

17. Were horticultural standards being maintained?

Yes No N/A

Comments:

All the plants and trees were maintained to a high standard. However the pond appeared to be overgrown and no water was evident at the time of my visit. I notice this was mentioned in previous feedback as a potential problem which hopefully the site plan to address.

18. Did trees appear to be safe and in good condition?

Yes No N/A

Comments:

19. Were features requiring or undergoing maintenance made safe with appropriate signage?

Yes No N/A

Comments:

20. Did you feel safe during your visit?

Yes No N/A

Comments:

21. Was the site flying its Green Flag, and was the flag in good condition and recognisable and was a certificate displayed?

Yes No N/A

Comments:

The flag was flying but I did not notice if they had the certificate displayed.

22. Did you obtain feedback from park users and/or staff?

Yes No N/A

Comments:

23. Would you like to make any additional observations?

Yes No N/A

Comments:

The park and arboretum were in great condition and clearly being used and enjoyed by the local community.

Overall is the Green Flag Award standard being maintained on the site?

Yes No

If no please indicate the main areas that require action to achieve the standard.

Comments

4.2 Action Plan

Comment/Recommendation	Action	Who	Status
<ul style="list-style-type: none"> • Trash screen 	<ul style="list-style-type: none"> • New trash screen now installed, debris to be cleared following heavy rainfall and as required. 	<ul style="list-style-type: none"> • Amey 	<ul style="list-style-type: none"> • Amey to clear trash screen of debris regularly
<ul style="list-style-type: none"> • Pond in Arboretum 	<ul style="list-style-type: none"> • Contractor to re-install fencing around pond. 	<ul style="list-style-type: none"> • Contractor 	<ul style="list-style-type: none"> • Completed Sept 2016
<ul style="list-style-type: none"> • Chapel 	<ul style="list-style-type: none"> • Concerns raised over the condition of the chapel roof. 	<ul style="list-style-type: none"> • Gloucester City Council 	<ul style="list-style-type: none"> • Ongoing monitoring
<ul style="list-style-type: none"> • Insect hotel in Arboretum 	<ul style="list-style-type: none"> • Friends to tidy up and use top section of insect hotel as a seed bed. 	<ul style="list-style-type: none"> • FOBA 	<ul style="list-style-type: none"> • Winter 2018/Spring 2019
<ul style="list-style-type: none"> • Silt by bridge close to Cherston Court entrance 	<ul style="list-style-type: none"> • Gloucester City Council to monitor. 	<ul style="list-style-type: none"> • Gloucester City Council 	<ul style="list-style-type: none"> • Ongoing monitoring
<ul style="list-style-type: none"> • Planting along brook line 	<ul style="list-style-type: none"> • Existing planting has been successful. Would like to undertake more planting. 	<ul style="list-style-type: none"> • Gloucester City Council 	<ul style="list-style-type: none"> • Ongoing
<ul style="list-style-type: none"> • Flower seed 	<ul style="list-style-type: none"> • Sow wildflower seed over silt removed from brook and left in Arboretum 	<ul style="list-style-type: none"> • FOBA 	<ul style="list-style-type: none"> • To be completed Spring 2019
<ul style="list-style-type: none"> • Tree Planting 	<ul style="list-style-type: none"> • Ballancing Pond 	<ul style="list-style-type: none"> • Gloucester City Council FOBA 	<ul style="list-style-type: none"> • Completed November 2018

APPENDIX 1

Covenants

For a period of 99 years (“the period”) from the date hereof:-

Not to use or permit to be used the Property for any purpose other than open public park land and during the Period not to erect any buildings thereon (other than such Temporary Buildings as may enhance the use of the open public park land) and to keep the Property well-stocked with trees and shrubs

Not to lay out or permit to be laid out any sports pitches on the property nor to permit any ball games to be played on the property

Not to allow any members of the public to use the property during the hours of darkness and to take all reasonable measures to prevent such access (if access cannot be prevented by any other means) including constructing a gate on the bridge giving access to the property.

Not to allow public access to the Property except pedestrian access only over the footbridge to be constructed by the Transferee at the approximate position marked in yellow on the plan numbered 1 annexed hereto.

Not to site any paths and/or benches immediately adjacent to the boundaries of the property with the Adjoining Properties and to manage any livestock kept on the Property in accordance with good husbandry and to use all reasonable endeavours to store animal foodstuffs so to discourage vermin

Not to construct or site any play equipment within the property without the prior consent of two-thirds of the residents (provided that the two-thirds of the residents giving consent include the owners of the two Adjoining Properties which are nearest to the location of the proposed play equipment).

Not to allow the public to trespass on the Property by climbing over the weir (which is for the purpose of identification only marked green on plan1 annexed hereto) and to take all reasonable steps in accordance with the Health and Safety regulations to prevent such access.

Not to gain vehicular access to the property other than through the existing gate leading on to Church Lane unless such access becomes unusable because it does not comply with the appropriate planning and highway safety regulations

For the purposes of the above covenants the following expressions shall have the following meanings:-

- a) ‘the adjoining property’ means the three properties to be constructed on part of the said Retained Property of the Transferor and being shown hatched red on plan 2 annexed hereto
- b) ‘the health and safety regulations’ means all Health and Safety Regulations imposed by statute whether in force at the date hereof or to be enacted or imposed in the future.
- c) ‘the residents’ means the owner or owners for the time being of the adjoining properties
- d) ‘the temporary Buildings’ means buildings which have a limited life in that they only have temporary planning permission.

Indemnity Covenants by the Transferee

The transferee HEREBY COVENANTS with the Transferor to observe and perform the covenants contained or referred to in the Charges Register of the above title number as varied and extended so far as they relate to the Property and to indemnify the Transferor against any breach in respect thereof.

APPENDIX 2

Barnwood House and Grounds

By Hugh and Rosemary Conway-Jones

The original Barnwood House, on the south side of the road to Cirencester, was built as a gentleman's residence sometime during the first five years of the nineteenth century¹. It was a square block of three storeys with two full-height bays on the garden front, a service wing to the west and a semi-circular drive at the front². It was built by Robert Morris of nearby Barnwood Court, a partner in the Gloucester bank of Turner & Morris and MP for Gloucester from 1805 to 1816³. It is unlikely that Morris built the house for his own use as he had recently undertaken considerable improvements to the Court⁴, and so it is possible that it was intended for his son Robert. However, Robert jnr set up home in Cheltenham where he ran a branch of the bank⁵, and by 1808 Barnwood House had been purchased by Sir Charles Hotham bart. Sir Charles had inherited the family baronetcy of South Dalton near Beverley, Yorkshire, but his estate there was entailed⁶. As he had recently married a young bride and he was not in good health, it seems he wanted a property where she could continue to live after his death⁷.

As well as buying the land immediately associated with the house, Sir Charles also purchased neighbouring properties fronting on to the turnpike road together with the field between those properties and the Wotton Brook and some fields to the south of the brook⁸. One difficulty was that a public footpath ran across the field close behind his house, which may have been the reason why the house was built so close to the main road. In 1810, however, Sir Charles managed to get the right of way diverted on to neighbouring roads, although other parts of the route still survive between Barnwood Avenue and Eastern Avenue⁹. Unfortunately, Sir Charles did not enjoy his new property for long, as he died at Barnwood House on 18 July 1811 at the age of 45. He was buried at the cathedral, where his memorial is a white marble plaque on the north wall of the nave¹⁰. In the following year, his widow married the Rev. George Morgan of Wadham College, Oxford, and the house was put up for sale with 48 acres of land¹¹.

Barnwood House and grounds were purchased in 1813 by David Walters¹² who came from Richmond, Surrey, where he had banking connections. He may well have had business with the Turner & Morris bank, as his daughter Louisa soon married Thomas Turner who joined his father as a partner in the bank¹³. The house was described as being "beautifully situated on a lawn, fronting to the south, commanding extensive and highly diversified views of the adjacent country". The property included a greenhouse and a kitchen garden which was "surrounded with lofty walls well clothed with the choicest fruit trees"¹⁴. David Walters lived in the house until his death on 6 May 1833, and then it became the home of his son James Woodbridge

Walters, who was a founder director of the new County of Gloucester Bank in 1836¹⁵.

Either father or son had added wings to the original house by the time of the Tithe Survey in 1838. The lawn and garden extended about 50 yards behind the house, and then there was a pasture sloping down to the Wotton Brook, which was dammed to form a small lake. The Tithe Map shows trees to the east and west of the pasture, framing the view from the house which included two distant spinnies. There was also a plantation of trees on the north side of the main road. To the east of the house were two cottages, a walled kitchen garden and an orchard sloping down to the brook. Both father and son had added much further land to the estate on both sides of the main road, and by 1838 the total area was 719 acres¹⁶.

As well as being a director of the County of Gloucester Bank, James Woodbridge Walters also became prominent in public life. He was a captain in the volunteer militia, a Justice of the Peace and in 1841 Sheriff of Gloucestershire¹⁷. It seems, however, that his pretensions were rather greater than his resources, and when he died in 1852, he was heavily in debt. He had arranged for the bank to settle all his debts in exchange for taking over his property, but the bank soon found that the debts considerably exceeded the value of the estate. For several years, the other directors did not formally recognise this as a bad debt, and instead they tried to sell the property at unrealistic prices - but without success¹⁸.

Eventually, in 1858, the bank agreed to sell Barnwood House and 48 acres of land to a Committee of subscribers who were wanting to establish a private mental hospital. The subscribers had formerly supported patients in the Horton Road Hospital, but this arrangement had ended due to a great increase in the number of pauper patients needing the accommodation¹⁹. The chairman of the subscriber's committee was W.H. Hyett of Painswick House, who would have been familiar with Barnwood House as his sister had married previous owner James Woodbridge Walters²⁰. The existing house was converted to a residence for the Medical Superintendent with some offices and communal rooms, and large new wings were added on either side to provide accommodation for about 70 patients. Water was obtained from the brook which ran through the grounds and was pumped up to the house by two hydraulic rams installed at the weir. The existing gardens were extended down to the brook with gravel walks and additional trees and shrubs²¹. The walled kitchen garden was reserved as an airing ground for the ladies, and a separate area was enclosed with a paling as "a court for the more excited gentlemen patients"²². A bridge was built near to the weir so that patients could follow a gravel walk around the field beyond the brook, returning via an existing bridge further east. The route of this walk, known as the Ladies Mile, was marked by a line of trees²³.

The hospital patients were expected to pay for their care according to their means, the richer ones helping to subsidise those less well off, with additional contributions coming from generous subscribers. In the first year,

1860, twenty-five patients were admitted and eleven were discharged cured. The number of patients increased steadily over the following years, and the finances were so healthy that additional accommodation and other amenities were provided as required, including a private chapel to the south of the brook in 1869 reached via a third bridge. In the mid 1870s, the farm on the north side of the main road was purchased with the help of a bequest, and this was managed for the hospital by a farm bailiff. By the mid 1880s, the hospital buildings extended for 215 yards along the main road and the annual average number of patients had risen to well over 100, some being accommodated across the road in North Cottage²⁴. A cricket ground was formed to the south of the chapel, fancy dress balls and garden parties were attended by some of the local gentry and groups of patients occasionally visited local houses for tea²⁵.

Towards the end of the century, it was realised that the original Barnwood House forming the central block of the hospital was in such poor condition that it was unsafe, and in 1896-97, it was replaced by a four-storey building. By the end of the century, the annual average number of patients was near to 150. Additional facilities were provided in the early years of the twentieth century, including a block of coach sheds and stables with a small clock tower on the north side of the main road, later converted to garages. Suitable patients were taken shopping or for drives in the country. In 1919 the Manor House near Upton Lane was opened for a few lady patients and North Cottage became the nurses home. In May 1924, a cloudburst over Coopers Hill caused so much water to rush down the Wotton Brook that the wall over the weir in Church Lane was destroyed and property downstream was inundated²⁶. The replacement wall was built with additional apertures for flood water.

Patients were graded according to the severity of their illness. A few were so serious that there was little the medical staff could do for them, but most were suffering from temporary illnesses, and they were encouraged to take part in a wide variety of activities as part of their treatment. Between the wars, the hospital's hall was in regular use for concerts, lectures, amateur theatricals, films, dances and indoor games. Other activities for patients included handicrafts, physical exercises, croquet, tennis, Morris dancing and ballroom dancing with a live orchestra. For the gentlemen, there was also billiards, a skittle alley and cricket matches in the summer, and ladies were encouraged to walk around the grounds and watch the cricket. The grounds were kept in fine condition by a dozen or more gardeners, who also provided vegetables for the kitchen.

During 1938, the district was affected by the development of an aircraft factory at Hucclecote, and this led to a search for a new site for the hospital. After some disappointments, the Woodchester Park estate was purchased in 1939. Although the outbreak of war then prevented any early action, planning for the move continued, and the County Council agreed to purchase the Barnwood House estate after the war with a view to making it

their administrative headquarters²⁷. In the event, the agreement lapsed and the hospital continued at Barnwood.

Following the appointment of Dr G.W.T.H. Fleming as Medical Superintendent, Barnwood House became the first hospital in the country to carry out electric shock treatment in 1939, and pre-frontal leucotomy was tried in 1941. Both treatments followed a study by Dr Fleming and the Director of the Burden Neurological Institute at Bristol, Prof G L Golla, of pioneering work abroad. After the war, they set up a research department to study the biochemistry of the brain before and after these treatments were undertaken. Meanwhile, several new houses were built on the hospital's land to provide homes for key workers. In November 1953, to commemorate the coronation year of Queen Elizabeth II, two metasequoia glyptostroboides trees were planted in the grounds by the Chairman, Mr W J Croome, in the presence of a representative gathering of the Committee, patients, officers and staff²⁸.

From the mid 1950s, following the introduction of the National Health Service, the number of patients fell and the hospital began to have financial problems. After several years of using up reserves, the main hospital was closed in 1968 and most of the land was subsequently sold for development. The work of the hospital initially continued on a much smaller scale at the Manor House, until in 1977 this became a day home for the elderly .

Most of the hospital buildings were demolished, although the central block survived as a private house until 2001. Most of the former gardens were developed for housing with the rest becoming Barnwood Park and Arboretum. The site of the cricket pitch was dug out to form a balancing pond to avoid overloading the Wotton Brook with the run-off from more housing to the south. Much of the route of the patients' walk is still marked by walk-ways through the new housing lined by mature trees. One of the spinnies visible from the house in the 1830s survives at the south-east corner of the patients walk and the other is at the junction of Spinney Road and Broad Leys Road off Abbeymead Avenue. Much of the hospital's land on the north side of the road has been used for office and retail developments, but the plantation and some of the farm buildings survive, some of the houses for key workers are in Welveland Lane and North Cottage is now occupied by the Emmaus charity.

Acknowledgement

The second half of this account draws heavily on a history of the hospital: *Barnwood House Condensed* by A.G.T. Gale, who was Secretary to Barnwood House Trust from 1946 to 1974.

References

¹ In 1799 the property 70) and in 1804 the property was described as Messuage & Garden 2r 5p belonging to Robert Morris (Glos RO D936 E144).

² Glos RO Q/SRh 1810 A/1; D3725 Box 1 Photograph.

³ See 1 above; Williams, W.R., *Parliamentary History of Gloucestershire*.

⁴ VCH Glos IV p413.

- ⁵ *Griffith's New Historical Description of Cheltenham* 1826 picture after p14; T. Hannam Clark in D3398 2/4/1.
- ⁶ House mentioned in codicil of Sir Charles Hotham's will 22 Oct 1808 but not in original will 5 Jun 1807 (PRO PROB 11/1528 Q536).
- ⁷ Glos RO D3725 Box 144 Manuscript notebook: *Records of Barnwood House*.
- ⁸ Glos RO D936 M1/2.
- ⁹ Glos RO Q/SRh 1810 A/1.
- ¹⁰ GJ 22 Jul 1811.
- ¹¹ GJ 13 Jul 1812; GJ 19 Oct 1812.
- ¹² Glos RO D936 M1/2.
- ¹³ *Records of Barnwood House* qv.
- ¹⁴ GJ 13 Jul 1812.
- ¹⁵ GJ 11 May 1833; D2025 Box 128 Deed of Settlement.
- ¹⁶ GDR T 1/16.
- ¹⁷ *Records of Barnwood House* qv; *Trans BGAS* 1967.
- ¹⁸ GJ 3 Jul 1852; Glos Coll JR 13.7(6).
- ¹⁹ VCH Glos IV p274.
- ²¹ *Barnwood House Condensed* by A.G.T. Gale (copy in Glos RO PA 35/3)
- ²¹ *Barnwood House Condensed* by A.G.T. Gale (copy in Glos RO PA 35/3)
- ²² Report of the Commissioners in Lunacy 1860 (thanks to Ian Hollingsbee).
- ²³ The remainder of this article is largely based on *Barnwood House Condensed* by A.G.T. Gale and on Mr Gale memories, with some additional sources noted below.
- ²⁴ VCH Glos IV p274; 1883 OS map.
- ²⁵ Verey, David, *The Diary of a Victorian Squire*.
- ²⁶ GJ 24 May 1924.
- ²⁷ Darell, Sir Lionel, *Ratcatcher Baronet* p245.

APPENDIX 3

Events 2017/18

14-Jan-17	Chippings on to paths. Cleared leaves from below Beech & Turkey Oak. Rem elder from shrub in park	14
25-Feb-17	Planted second row of hedging by Nick's house. Cleared bramble from Indian Bean Enclosure and south of IB enclosure, East Mulberry tree, Walnut, New Dawn Redwood, Beech enclosure, Dogwoods. Removed saplings from by Balsam Poplars.	14
11-Mar-17	Burnt bramble from Feb event. Coppiced willows by brook. Moved plants from insect hotel to Orchard. Tidied new heedge bed. Tidied Bluebell bed. Primroses into park flowerbed. Loostrife into silt area.	19
29-Apr-17	Weeded and checked the new flower bed. Painted the carved logs in the park.	9
22-May-17	Weeded area beside wildlife pond for the new path	1
27-May-17	Weeded the new flower bed. Installed a path beside the wildlife pond	10
05-Jun-17	World Environment Day at EDF	4
07-Jun-16	Sowed wild flower seeds in tray above insect hotel with Buttons Kindergarten (6 children, 3 adults)	2
07-Jun-16	Strimmed weir path, logs, dawn redwood path, new flower bed, notice boards area, church lane access.	2
17-Jun-17	Moth morning. Moths collected in N Meeks & Ron's gardens	11
03-Jul-17	Strim around park logs and arboretum foot paths	2
07-Jul-17	Weeded the park flower bed	6
24-Jul-17	6 Dexter cattle arrived from Minchinhampton	
26-Jul-17	AGM @ St Lawrences	
19-Aug-17	Moth morning. Moths collected in N Meeks & Ron's gardens	
14-Sep-16	Coppice willow above the arbo bridge	1
23-Sep-17	Planted 500 snow drop bulbs, Coppiced willow in the arboretum by the brook, Removed weed from the wild life pond	12
09-Oct-17	Scarify Orchard & plant blacknapweed plants & yellow rattle seed. Cleared grass from underneath apple trees	5
28-Oct-17	Coppiced willow in orchard. Removed grass from wildlife pond. Planted bluebell bulbs. Cleared the path by the chapel. Coppiced willow in park.	16
01-Nov-17	Tidied flower bed. Strimmed inside wildlife pond fence	5
08-Nov-17	Sowed seeds in the insect hotel	2
11-Nov-17	Church Lane entrance tidy. Planted 2 dogwoods. 3 Cypress at Cherston Court entrance raised crown. Removed 5 m chestnut paling fence. Put fences around birch, red oak, hungarian oak, tulip trees in the park	7
23-Nov-17	Remove debris from the Orchard where Amey had cut down bramble and sedge at the east end.	3

Barnwood Park and Arboretum Management Plan 2019 - 2023

09-Dec-17	Removed wild cherries from area near Geraldine, removed hedge from between park & balancing pond, tidied up around the chapel.	17
14-Dec-17	Put up fences around Liquidambar and Scots Pine. Removed 20 concrete fence posts & paling between Park and Balancing pond. Planted Acer, cleared up stumps around the chapel, tidied up the lime tree bases, Laid chippings on the weir path.	21 EDF
10-Jan-18	Tidied the wood that had fallen from the pine trees at the west end of the park. Cut to size and moved into the arboretum. Large pieces will need to be cut up by chain saw and transported into the arboretum for use as a log pile.	5
20-Jan-18	Chippings on the paths, Improved the habitat pile. Set the fallen log into the ground by the carved log, Replaced the fallen fence by the Church Lane entrance	15
01-Feb-18	Planted a new hedge by the Church Lane fence which is degrading	2
06-Feb-18	Put chippings onto the paths and created a new path by the pond. Sorted the burn pile ready for a fire on Saturday. Sticks will go to the dead wood hedge.	11
10-Feb-18	Removed bramble from around Ginkgo, Dawn Redwood, Walnut, Indian Bean tree. Coppiced willows along the bank above the arbo bridge. Felled an Ash tree near the Poplars and made a habitat pile.	12
15-Feb-18	Coppice the twisted Hazel between the park and the balancing pond. Remove debris from the stream above the Cherston Court bridge	3
20-Feb-18	Removed bramble from the beech enclosure	5
13-Mar-18	Clear bramble in Arboretum	3
21-Mar-18	Fire in arboretum to dispose of bramble	2
24-Mar-18	First Aid Course	1
24-Mar-18	Pruned orchard trees, Raised crown on 3 Cypress, Removed bramble, Created 2 habitat piles, Topped up deadwood hedge, Log pile in wild life pond area	22 + 2 children
20-Apr-18	Planted 3 oak trees	2
21-Apr-18	Chippings onto the east end path, Planted wild flowers, Tidied the deadwood hedge, Fire to burn bramble, Barley straw into the pond.	18 + 1 child
25-Apr-18	NCP group put chippings onto the path from the gate to the pond. Malcolm organised this.	5
25-Apr-18	Installed the new noticeboard at the east end of the park. EDF had funded the noticeboard.	3
18-May-18	Bat walk led by Petra. Saw Pipestrelle & Daubenton bats	20
26-May-18	Moth morning. Richard Catlin identified the moths. Traps placed at 45CC & Brian Walker's house	
05-Jun-18	EDF World Environment Day . FOBA stand	2

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14-Jun-18	Planted Ragged Robin in Arbo, Cut down teasels by pond, tidied the flower bed, removed bramble in arbo, removed nettels by corale path, raked up chippings, tidied around J Weston tree, removed burnt branches from Thuja, rem elders by gym, rem chicken wire from bridge, trim Holm Oak, trim Hazel above CC bridge, rem sycamore from gym path, rem 2 posts from 5 pines area, rem lower branch from Himalayan Birch.	15
25-Jul-18	Watered new trees, Oiled carved logs, Planted in flower bed, Cleared grass from new trees enclosures, Removed elders and nettles from park trees.	11
25-Aug-18	Moth morning. Richard Catlin identified the moths. Traps placed at 45CC & The Owens' house	15 & 4 children
19-Sep-18	6 Dexter cattle leave the arboretum after their summer grazing (60 days)	
29-Sep-18	Planted 300 crocus by church lane entrance, planted 75 knapweed in orchard and arboretum grassland, sowed yellow rattle in orchard. Removed dead branch from corral. Dismantled broken fence from around Indian Bean tree. Coppiced 2 Willows by the brook.	18
11-Oct-18	Removed dead branches from Ash above Cherston Ct bridge	1
25-Oct-18	Removed brash from around the Caucasian Wingnut in the Orchard & 2 dead branches	2
27-Oct-18	Installed 8 new posts for the deadwood hedge by the pond. Renewed the chippings on the paths in the Arboretum	14

APPENDIX 4

During the Big Garden Birdwatch, hosted by the Friends in January 2018, they saw:

Blackbirds
Blue tits
Carrion Crows
Dunnock
Goldfinches
Great Tits
Greenfinch
House sparrow
Kingfisher
Lesser Black Backed Gulls
Long Tailed Tits
Magpies
Mallards
Moorhens
Robins
Wood Pigeons
Wrens
Magpies
Mallards (21)
Mistle Thrushes
Moorhens
Robins
Sparrowhawk
Starlings
Trecreeper
Wood Pigeons
Wrens

Big Butterfly Count in Barnwood Park and Arboretum 2018

On 4 August 17 children and 36 adults counted butterflies in the park, arboretum and balancing pond for 15 minutes during the morning. In that time we saw:

Comma
Common Blue
Holly Blue
Gatekeeper
Green Veined White
Large White
Small White
Large Skipper
Meadow Brown
Peacock
Red Admiral
Ringlet

Silver Y
Small Tortoiseshell
Speckled Wood

Look at some of the beautiful moth photos on our website:

APPENDIX 5

Works Specification at - BARNWOOD PARK

Note that the timing of operations may vary slightly according to climatic and ground conditions prevailing, and also because of the specific requirements of the site.

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1.0 GRASSED AREAS

1.1 General

Areas of grass on the site will be classed as follows:-

1.1.1 Any reference to 'grass' or 'vegetation' above will include all vegetation and weed growth in the turf. Cutting will take place whenever required to ensure compliance with this specification throughout the full calendar year. During the calendar year, no grass growth regulators of any type will be applied to any area of turf.

1.1.3 Prior to grass cutting operations being undertaken, areas to be mown will be inspected, and cleansed of all litter, deleterious matter and all items and obstructions as may cause damage or injury to people, property or machinery irrespective of its source. All such items being collected and removed from site.

1.2 Cutting

1.2.1 The majority of grassed areas, will be mown using recognized mowing equipment of a cylinder type. Conservation and rough grass areas will be cut with approved reciprocal or rotary type machines that allow managed seed dispersal in desirable areas.

1.2.2 The mowing will cover the full extent of the identified area and be as near as possible to buildings, boundaries, trees, shrubs, fixed features or equipment, furniture and other obstacles without causing damage.

1.2.3 Margins that cannot be cut by machine are trimmed by other means to the same standard as the main areas.

1.2.4 Barnwood Park has many differing grass regimes and as such demands different cutting machinery types to achieve the desired vegetation management heights.

1.3 Cutting Amenity Areas

All areas, with the exception of those listed below, will not be allowed to grow to a length of more than 60mm and will not be longer than 45mm or less than 25mm immediately after cutting.

1.4 Conservation / Meadow Areas

Grass will be cut to a height of 75mm on two occasions during the year, as agreed by the management partnership. Cuttings will be removed and paths through conservation / meadow areas will be maintained in accordance with the particular

requirements of the park.

1.5 Strimming and Brush Cutting

Strimmers will be used in and around un-mown margins or where damage from machinery could be detrimental. Where new or young trees are planted, strimmer guards may be affixed to prevent cambium damage.

The height of cut will conform to the height of grass cut with conventional mowing equipment within the immediate adjacent vicinity.

1.6 Mowing where Bulbs and Corms are planted

These areas will be cut using the same mowing regime as for surrounding grass areas except that the first cut is delayed until after the bulb foliage has died down, or in any event 6 weeks after initial flowering.

1.7 Turfing/ Seeding

1.7.1 Grass seed used for the different biodiversity areas of the park will be selected from specific seed mixes agreed within the park management team. Selection of species is critical to the establishment of sustainable plants to enrich the swards.

1.7.2 Topsoil for use in regulating and grading existing lawns and beds will comply with BS 3882 and will be classified as medium, slightly stony. When placed, it will be free of stones more than 12mm in gauge and all traces of perennial weed material.

1.7.3 Where grass areas are to be re-sown or re-graded, the entire area concerned will be cultivated by manual or mechanical means to a minimum depth of 150mm, graded, consolidated and raked to a fine and true seed bed. All stones exceeding 12mm gauge, all weeds and other injurious matter resulting from these operations will be removed from site to an approved tip site.

1.7.4 Where grass seed is to be sown, the seed bed will be prepared as above. Seed will be supplied and sown evenly broadcast over the entire area at rates applicable to the mixture type.. The bed will be lightly raked to cover the seed and rolled with a light roller. Any area, which fails to germinate, will be re-sown within 4 weeks.

2.0 TREE MAINTENANCE

2.1 General

The inclusion of the arboretum trees forms an integral part of the overall landscape and environmental aspect of the park and will be maintained in such a way as to preserve the function for which they were originally intended.

Trees will be surveyed annually by the arboriculture surveyor with condition reports added to maintain the health data.

2.2 Mature Trees

During the winter months each tree will be inspected, sucker growth will be cut back to the main trunk of the tree and arisings removed from site as the work proceeds.

All young tree bases will have a base clear of vegetation by the use of a non-residual herbicide or organic bark mulch for a 150mm radius using the base of the trunk as the centre point to help ensure competition is reduced and tree health promoted.

3.0 HEDGES

3.1 Classification

Informal Hedges - i.e. field or boundary hedges which are cut once a year

3.2 General

Hedges in the park, are valuable wildlife corridor and as such they will be treated as valuable resource.

No hedges will be cut during the period April – July inclusive where birds are known to have nesting sites within the hedgerow.

3.3 Informal Hedges

Will be cut once a year using a tractor mounted flail 'mower' or by other approved means between the months of September/ February. Any growth not possible to be cut by flail cutter will be trimmed by hand equipment. Hedges will be cut back to the previous year's growth where not identified as a food source and when trimmed will present a neat and symmetrical appearance.

4.0 LAND DRAINAGE - Streams and Water Courses

4.1 General

Land drainage is classified as all drainage effecting the drainage of all areas and in the park it is simply an open ditch and the stream.

Any blockages that occur at the weir will be identified and removed by operational staff.

5.0 USE OF PESTICIDES – Within Barnwood Park will be severely restricted and only authorized in extreme cases.

6.0 MISCELLANEOUS ACTIVITIES

6.1 Litter Bins

Litter bins throughout the site will be emptied on regular weekly basis or as scheduled on need.

6.2 Leaves

Leaves will be collected / cleared on site from key footpath areas each Autumn/ Winter and stocked on site in appropriate areas to encourage wildlife.

6.3 Animal Nuisance

The clearance of dog faeces found to be present on the site will be undertaken by a service provider if and when instructed. **The Friends also remove dog faeces.**

6.4 Emergency Work – General

In the event of an emergency occurring, a service team eg; tree team will be deployed to undertake works as instructed by the management team.

7.0 MATERIALS - GENERAL

7.1 All materials will be of new manufacture and of the respective kinds described. Current British Standards will apply in all cases where appropriate.

7.2 Grass Seed

All grass seed will be of British OECD or EEC origin and will have been certified as to purity and germination rate.

7.3 Pesticides

7.3.1 Only products approved under the Control of Pesticides Regulations 1986 for use on amenity and sports areas will be used in respect of the contract works.

7.3.2 Only materials containing the following active ingredients will be used for the purpose specified below:

Glyphosphate

7.3.3 Apart from the materials listed above, there will from time to time be a need to use pesticides to deal with specific problems.

7.4 Mulch (Bark)

7.4.1 Bark mulch used for the works will be a natural product containing no added nutrients. Free from disease, pests or weed seeds. Clean, free flowing and easily distributed.

APPENDIX 6:- Other Relevant Sources of Information

- Barnwood Park & Arboretum's Tree Survey now excluded from the management plan due to the size and the detail of the document but is available upon request from the City Council.



Help with accessing this information
www.gloucester.gov.uk

For large print versions, or help to overcome other accessibility issues you have with this publication, phone **01452 396396**.

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