

Brackenhurst Campus

Landscape Management Plan

Date: January 2024

Version: 01 Date: 22/02/13	Version: 10 Date: 31/01/24
Author: ST	Author: JM
Version: 02 Date: 31/01/14	
Author: CPH	
Version: 03 Date: 30/01/15	
Author: CPH	
Version: 04 Date: 29/01/16	
Author: SB	
Version: 05 Date: 19/01/17	
Author: ZT	
Version: 06 Date: 26/01/18	
Author: KDM	
Version: 07 Date: 28/01/19	
Author: OH	
Version: 08 Date: 29/01/20	
Author: HT	
Version: 09 Date: 10/02/22	
Author: SR	

Contents

1. Introduction and Background	5
1.1. Location	6
1.2. Current Use	6
1.3. History	7
1.4. The Gardens and Grounds	8
1.5. Home Farm	12
1.6. Outdoor Classroom	13
1.7. Hedgerows	14
1.8. Campus Development	14
2. A Welcoming Place	17
2.1. Good and Safe Access	
2.2. Signage	19
2.3. Equal Access for All	
3. Health, Safety and Security	21
3.1. Appropriate Provision of Quality Facilities and Equipment	
3.2. Safe Equipment and Facilities	
3.3. Personal Security	24
3.4. Health and Safety	
3.5. Accident and Incident Reporting	
3.6. Dog Fouling	
3.7. Working Hours	
4. Cleanliness and Maintenance	27
4.1. Litter and Waste Management	
4.2. Horticultural Maintenance	
4.3. Tree Maintenance	
4.4. Hedgerow Management	
4.5. Building and Infrastructure Maintenance	
4.6. Equipment Maintenance	
4.7. Maintenance Planning	
5. Environmental Management	
5.1. Managing Environmental Impacts	
5.2. ISO 14001	
5.3. Pesticides and Herbicides	

	5.4. Composting and Elimination of Pesticide Use	. 36
	5.5. Nottingham City Transport (NCT) Number 26	. 36
	5.6. Cycling	. 37
	5.7. Electric Vehicles	. 38
	5.8. Solar Photovoltaic Panels (PV)	. 38
	5.9. Combined Heat and Power (CHP) Plant	. 38
	5.10. Biomass Boiler	. 39
	5.11. Wind Turbines	. 39
	5.12. Environmental Management Review Committee	. 39
	5.13. Engagement	. 39
	5.14. Fairtrade	. 40
	5.15. Climate Change and Adaptation	. 40
6.	Biodiversity, Landscape and Heritage	. 41
	6.1. Management of Natural Features, Wild Fauna, and Flora	. 42
	6.2. Water Conservation	. 45
	6.3. Planting Policy	. 45
	6.4. Conservation of Landscape Features	. 47
	6.5. Hedgerows	. 47
	6.6. Conservation of Buildings and Structures	. 49
	6.7. Rose Garden Pergolas	. 50
	6.8. Gatehouse Wall	. 50
	6.9. Gates to Walled Garden	. 51
	6.10. Bramley Apple Tree	. 51
7.	Community Involvement	. 53
	7.1. Community Events	. 53
	7.2. Flower Pod	. 56
	7.3. Hedgehog Friendly Campus (HFC)	. 57
	7.4. Community Access	. 57
	7.5. Conferences, Catering and Room Hire	. 57
	7.6. Sports Facilities	. 58
8.	Marketing and Communication	. 59
	8.1. Marketing and Promotion	. 60
	8.2. Communication Channels	. 60
	8.3. Educational and Interpretational Information	. 61
9.	Management	. 63
	9.1. Management Structure	. 63

9.2. Project Funding	63
9.3. Management Priorities	64
Appendices	65
Appendix A – Sample Maintenance Plan	65
Appendix B – Implementation Plan	68
Appendix C – Brackenhurst Campus Master Plan	69
Appendix D – Brackenhurst Campus Map of Access	70



Section 1: Introduction and Background

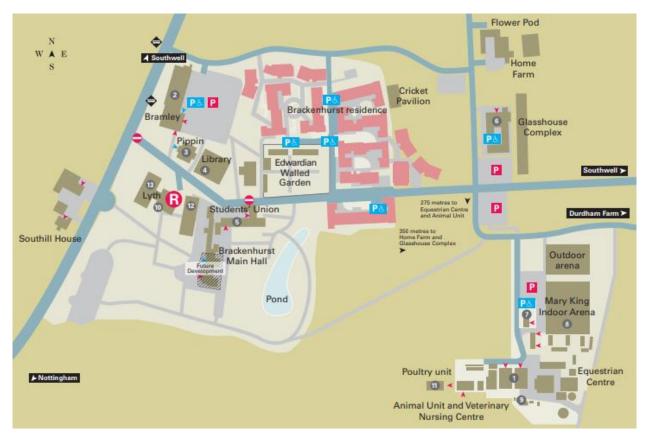
1. Introduction and Background

1.1. Location

Nottingham Trent University's Brackenhurst Campus is a 200-hectare rural estate in Nottinghamshire, located south of the town of Southwell. The campus consists of groups of buildings and related infrastructure, farmland, woodland, and gardens.

Brackenhurst can be reached from the M1 by leaving at any of the Nottingham exits (Junctions 24, 25 or 26), travelling through Nottingham city centre, then following the A612 towards Southwell. From the A1, exit at Newark and follow signs to Southwell. Brackenhurst is on the A612 about one mile beyond Southwell.

Brackenhurst is served by the Nottingham City Transport (NCT)'s Pathfinder 26 bus service, which links Nottingham city centre to Southwell. Buses to Brackenhurst Campus leave Nottingham City Centre every 30 minutes and the journey time is about 40 minutes.



2023 Plan of Brackenhurst Campus

1.2. Current Use

Brackenhurst Campus has been a centre for education and training for land-based industries for more than 60 years. During this time, the character of the house, gardens, grounds, and parkland has been retained.

In April 1993, the Farm Institute became a College of Further Education under the Further and Higher Education Funding Council. In April 1999, the College underwent a formal merger with Nottingham Trent University (NTU). It is now called the School of Animal, Rural and Environmental Sciences (ARES). Over the past 10 years, the school has doubled in size, catering for an increasing number of students on diversified courses.

As a working farm and a wildlife haven, Brackenhurst is fully equipped with outstanding facilities including lecture theatres, residential accommodation, glasshouses, a dedicated veterinary nursing centre, an animal unit, food laboratories, a cattle roundhouse, engineering workshops and more. These tools allow staff, students, and researchers to work on some of the most dynamic and innovative topics in the field of animal, rural and environmental sciences.

The Equestrian Centre, comprised of an indoor arena and outdoor school alongside stabling for approximately 60 horses, is a British Horse Society (BHS) approved training and livery establishment which holds a full local authority riding school licence.

1.3. History

In 1827, Reverend Thomas Coats Cane of Halloughton bought approximately 37 acres of land, which included the fields or 'closes' surrounding the site of the existing Main Hall, which was built in 1828. Thomas was educated at St John's College Cambridge and ordained a deacon and priest in 1824. He was squarson' reverend, both a farmer and landowner and bred cattle and pigs on the estate.

William Norton Hicking purchased the estate in 1899 and began to aggrandise the house and gardens, making considerable improvements to the gardens. Between 1899 and 1919 he created the Dew Pond with its willow-pattern bridge, boat house, Japanese Wilderness, Sunken Garden, Orangery, terrace, ha-ha, Rose Garden with its pergolas of Italian tiles, lodge, ornamental gates, and walled kitchen garden. He also added various pieces of imported Italian statuary around the grounds and planted two avenues of trees leading towards the Main Hall. The Dew Pond is believed to be the first in the country that filled naturally from rainwater.

The Main Hall has been developed since, with the roof balustrade, chimneys and tower all added. The original coach house was joined to the house in the middle of the 20th Century. By 1901 the house had been named Brackenhurst Hall. The farm building and large trees, including the cedars, all date from the 1830s.

More land was bought and eventually, Hicking owned 250 acres, including Home Farm. He became a nationally known breeder of dairy cattle; the Brackenhurst gene was reputed to be the finest type of dairy shorthorn ever bred. The cows provided cream and butter for use in the kitchen.

Brackenhurst was also home to a regional weather station, from where the data was phoned through daily to a national centre and, during the First World War, the hall was used as one of 17 auxiliary hospitals in Nottinghamshire by the military for service members recovering from injury.

In 1947, the Nottingham Farm Institute was established. World War II had left the country short of food and skilled farm workers, so the Ministry of Agriculture searched for locations to accommodate men to train in the skills necessary for farming, one within each county. A suitable large house and associated farmland were sought in Nottinghamshire. Brackenhurst was thought to combine an excellent farm with a large hall providing an ideal location. The Council made the necessary purchase in 1947, buying the Hall and 260 acres. The conference hall, laboratories, and residential accommodation (The Willows, Sycamore and The Limes which are no longer present) were opened in 1964. That institute was then absorbed into Nottingham Trent University in 1999. Throughout the intervening years, Brackenhurst underwent several changes, but since 1947 has remained a place of learning.



Brackenhurst Hall, Estimated 1918

1.4. The Gardens and Grounds

In 1928 the gardens were landscaped in the style of Sir Edwin Lutyens, including an Italianate courtyard, a sunken Dutch garden, a Rose Garden, a Japanese rock garden and a teardrop-shaped Dew Pond that was partly set in ornamental woodland, with a boathouse and 'willow

pattern' bridge. *Figure 1* shows the most up-to-date plan of the grounds and gardens at Brackenhurst Campus.

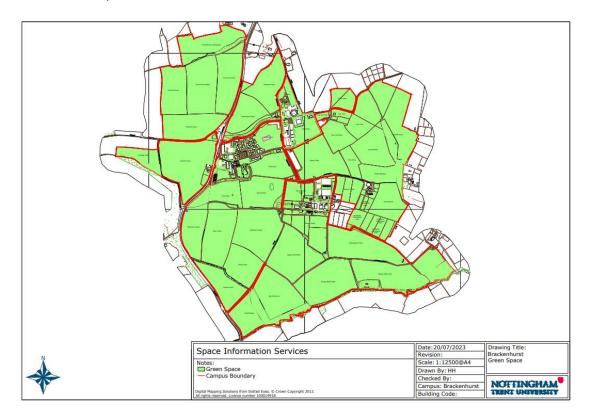


Figure 1: Greenspace Map of Brackenhurst Campus1.4.1. Historical Entrance to the Brackenhurst Estate

A Grade II listed gateway and railings laid out in a semi-circular arrangement lead onto the Grade II listed Lodge to Brackenhurst hall, a stone gatehouse, and a tree-lined avenue, which historically provided main access to the hall. Mature shrubs and broadleaved trees along Nottingham Road screen the hall.

1.4.2. Rose Garden

South of the new Lyth Building is the Rose Garden, laid out in an elongated oval arrangement, with a semi-circular pond and low wall situated to the southern extent. The 80-year-old Rose Garden was restored by students in 2009, funded by donations from a former lecturer and alumni. The restorative work included planting a wide selection of roses and installation of a commemorative sundial and benches.



Historic Image of the Rose Garden Pond

1.4.3. Sunken Garden & Dew Pond

East of the Main Hall, adjacent to the Orangery (used as the Students Union Cafe), lies the Sunken Garden. Measuring approximately 30 metres long and 15 metres wide, this rectangular garden is paved and formally laid out with flowerbeds and a central pond.

Immediately south of the Sunken Garden is a large formal lawn, which is accessible from the Main Hall via curved stone steps. Beyond this, to the east, lies the Japanese Wilderness and Dew Pond, which is filled from water collected from the roof of the Main Hall and fed through a drainage system. Excess water drains out of the system via outflow pipes into the ha-ha that surrounds the gardens. At the northern edge of the teardrop-shaped pond lies a timber-shingled boat house. The lake can be crossed in front of the boat house via a 'willow-pattern' bridge.

1.4.4. Walled Garden

The historical importance of the Edwardian Walled Garden and Potting Sheds is reflected in the wall's Grade II listing. The garden forms an important element of the campus, which is managed by staff and used by students for various activities such as pruning and planting.

1.4.5. Cricket Pitch

Between the heart of the campus and the Home Farm Workshops lies a football pitch and a cricket square with cricket nets and a pavilion. On the East boundary of the pitch lies a boardwalk which connects a car park with the footpath that runs through the centre of the main campus.



Walled Garden

1.4.6. Wider Estate

In addition to the gardens, the campus includes sports pitches, a publicly accessible library with student-designed landscaping, an Equestrian Centre, glasshouses, and a wide range of academic, residential, administrative, and other specialist buildings.

The estate also incorporates a working farm and associated agricultural land. The farmland comprises arable and pastoral farmland, hedgerows, field ponds and woodland. Sheepwalk's Pond and bird hide, located southeast of Brackenhurst Farmhouse, is accessed via public footpaths and permissive paths. Several rights of way pass through the campus grounds.

A new heritage orchard is in the process of being established with sites being identified. NTU lecturers aim to plant every variety of apple tree developed in Nottinghamshire. Planting days have already taken place, involving student and staff volunteers, with approximately 30 trees planted at South Hill house.



Boathouse and Bridge of the Dew Pond

1.5. Home Farm

Brackenhurst Campus has a working farm that is home to around 75 Lincoln Red suckler beef cows and 2 stock bulls, producing around 50 calves per year. There are also approximately 200 ewes and with a busy lambing season there can be as many as 300 lambs a year. As part of the DEFRA Environmental Stewardship Scheme, Home Farm promotes sustainable land use and management, integrating modern farming techniques with conservation work. The farm is made up of 53ha of permanent pasture, 11ha of woodland and 152ha of combinable cropping.

The site is located on heavy Keuper marl clay soil and is farmed "in house" using a regenerative mixed farming approach, using techniques such as:

- Strip-till drilling
- Cover crops
- Ruminant rotation
- Reduced fertiliser usage by band under sowing
- Variable rate seed and fertiliser
 applications
- Yield mapping
- Companion cropping
- Application of soil conditioners
- RTK GPS guidance

In 2022/23, Environmental Land Management Schemes (ELMS) implemented across the farm included 2.4 Ha of flower-rich margins, 9.2 Ha of buffer strips, 1.9 Ha of winter bird food and 0.5

Ha of bumble bird flower mix. The Farm aims to be sustainably productive whilst enhancing soils and the environment.

1.6. Outdoor Classroom

The Brackenhurst estate provides a wealth of practical experience and the perfect outdoor learning environment for student research and field work. The farmland forms part of an invaluable teaching resource for students studying a variety of courses available. Agriculture students learn valuable skills on the farm, helping to look after the animals and learning farming techniques. Countryside Management students also use the farm to learn about the diverse native habitats and to develop skills for the practical application of conservation and countryside management theory. The equestrian centre uses the bridle paths throughout the estate to hack out horses in practicable sessions for livery use and for equine grazing.

Conservation students also use the estate for habitat surveys, mammal trapping and bird ringing. Student research projects also regularly install camera traps across the site, providing valuable insight into the wildlife found across the estate. Students are encouraged to upload any images of biodiversity found across the site to the campus <u>iNaturalist Biodiversity Monitoring project</u> so that any observations can be used to inform estate management for biodiversity. Foxes, bats, hedgehogs, badgers, roe deer and hares are among the mammals recorded on campus.



Camera Trap Image of Roe Deer at Sheep Walks Pond

1.7. Hedgerows

Hedgerows are an important habitat that offer a variety of ecological benefits. Hedgerows not only provide a physical home, but they also provide an excellent complementary habitat for foraging and serve as wildlife corridors, connecting pockets of habitat and providing flowers and fruits for birds and insects.

Hedgerows on the Brackenhurst estate vary widely in terms of age, species-diversity, structure, and condition. In general, the hedges are in good condition and form significant linear features within the landscape, increasing the connectivity between habitat patches of open water and woodland. Some of the hedges are of great antiquity and historic importance, forming parish boundaries or ancient drove routes. Others are more recent, particularly those on the Northwest block of fields.

A hedge-specific survey completed in 2000 identified 97 hedges on the estate of which over 79% were found to have a moderately high to very high biodiversity value, which gives them conservation priority status. The hedgerows directly and significantly support a range of species of conservation concern including badgers, hedgehogs, brown hares, stoats, weasels, the common shrew, the harvest mouse, great crested newt, smooth newt, frogs, and toads.

1.8. Campus Development

Under the Sustainable Construction Policy for NTU, all new builds are required to achieve a BREEAM Excellent rating and all major refurbishment projects are assessed for environmental performance and certified using the RICS SKA Rating.

NTU is a proud Client Partner of the Considerate Constructors Scheme (CCS). We are an active member of the Scheme, aiming to improve the image of construction not only by minimising the negative impacts associated with construction activities, but by working collaboratively to promote excellence in site appearance, respecting the community, protecting the environment, securing everyone's safety, and valuing our workforce.

1.8.1. Library (2013)

The library achieved a BREEAM Excellent rating, putting it in the top tier of sustainable buildings nationally. The library has achieved an increase in study space whilst using stimulating design with green credentials, utilising the energy from the onsite biomass boiler.

1.8.2. Glasshouse Development (2014)

A 384m2 Glasshouse was built adjacent to the existing glasshouse facilities. At a cost of circa £100k, this provides plants for landscaping projects across NTU's estate. The suite of

modern greenhouses has automatic climate control which enables student, academic and commercial research to be undertaken in the spaces.

1.8.3. The Lyth Building (2020)

Completed in 2020, Lyth offers state-of-the-art facilities and a wide range of inviting teaching and social spaces. The brand-new 200-capacity lecture theatre includes retractable seating, allowing for a more flexible approach to teaching and event management.

The building also includes two Scale-Up teaching rooms, a purpose-built refectory, and a laboratory that has been specifically designed to encourage cross-disciplinary research.

1.8.4. New Accommodation (2020)

The new accommodation complements the existing 300-bed provision on campus with a further 120 student rooms. The accommodation successfully received its Post Construction BREEAM Excellent certificate in 2021. This project funded the planting of a new woodland on the adjacent bund on Brackenhurst Lane. There is also the opportunity to use these rooms to support the hosting of future conferences and summer events.

1.8.5. Home Farm Workshops (2023)

The original workshops, constructed in 1953, were part of the original Brackenhurst College site which merged with NTU in 1999. The construction's features are typical of a building of its age: a single-storey building with a concrete structural frame, clad in brick, incorporating a corrugated asbestos roof. Wear and tear over the years, as well as the building's asbestos roof reaching its end of life are the reason behind development works which began in January 2023.

The development refurbished the facilities and reconfigured up to 400 sqm of the existing 1,000 sqm workshop space to create more effective, flexible, and enhanced teaching and ancillary facilities. A new foyer, practical teaching space, and student locker room were also created. These works have not only allowed the building to be occupied and used but also removed asbestos-related health and safety risks and prolonged the life of the building by a minimum of 15 years.

1.8.6. Main Hall Refurbishment (2023)

Internal works are currently underway at Main Hall, to address all the long-term maintenance requirements of the building. To date, works have included insulation improvements using Sheep Wool to keep with the university's wider sustainability initiatives. Works are expected to be completed by January 2025.

1.8.7. Wider Landscaping Masterplan

The university's institutional goal is to be recognised as the most environmentally responsible university in the world; this can only be accomplished by conserving and enhancing biodiversity within NTU's estate. This university aims to:

- Protect and enhance biodiversity within the NTU Estate.
- Increase awareness and understanding of the importance of biodiversity among students, staff, and visitors.
- Integrate biodiversity considerations into campus planning and management.

NTU has become a founding signatory of the Nature Positive Universities Alliance, which was launched at COP15 in Montreal on 8th December 2022. The Alliance is a global network of universities that have made an official pledge to work towards halting, preventing, and reversing nature loss by addressing their impacts and restoring ecosystems harmed by their activities. NTU has established the following objectives in accordance with our institutional goals and the Nature Positive Universities pledge:

- Conduct a baseline biodiversity survey of the NTU Estate, identifying key habitats and species.
- Set SMART and ambitious biodiversity targets.
- Undertake actions to conserve and enhance biodiversity within the estate.
- Annually and transparently report on progress.
- Engage with staff, students, and the wider community, regarding the ecological crisis by raising awareness and empowering individuals to take action to conserve biodiversity.

There are long-term wider landscaping plans for the campus currently being designed and approved at a Senior Management level. These aim to improve the connectivity of the 'Three Teaching Zones' whilst enhancing the user's experience and interest in the surrounding rural land.

In 2022, a new footpath between Cricket Pitch Car Park and Hicking Lane on our Brackenhurst Campus was constructed. The footpath is made of Millboard decking, a material manufactured from recycled materials, and is completely recyclable. To avoid damage to the tree roots, the deck has been mounted on 90mm diameter screw piles, so no excavation was required during construction. The lights along the path are LED and low level to directly light the path. Soft landscaping and redesign of central walking routes around the campus will complement people's experience and interaction with their environment.

In October 2019, a decision was made to replace mown lawn path verges with native wildflower strips as appropriate across the estate. The university also participates in no-mow may and allows the grass to go unmown for as long as possible into the summer, to provide habitats for pollinators and other invertebrates.



Section 2: A Welcoming Place

2. A Welcoming Place

2.1. Good and Safe Access

2.1.1. Access & Accessibility

There is one key vehicle entrance to Brackenhurst from the A612; a further pedestrian entrance provides access from the bus stops located outside of the campus, as well as footpath access to Lyth and the Main Hall through the gatehouse and rose garden. Access across the site complies with BS 8300 (design of buildings and their approaches to meet the needs of people with disabilities) to ensure that buildings are accessible to all. This includes level or ramped access into buildings, as well as dropped kerbs at most road crossings.

Where possible, paths across the estate have been made accessible to wheelchairs and pushchairs. However, this is not always feasible as many paths cross fields and rough terrain. When any new development is conducted, consideration is given to disabled access. Ramped access has been provided to the wildlife hide at Sheep Walks East, with further design features within the hide made to accommodate wheelchairs.

Planting along the Nottingham Road frontage is positioned and maintained to ensure that good sight lines are retained, with clear views into the campus at these main entrances. This planting also helps to screen the built elements, in-keeping with the wider countryside landscape. Immediately north of the main access road, an earth bund with native tree planting was constructed to help screen the buildings from the north. Many of these trees were planted as part of the BBC Breathing Places 'Tree O'clock' world record event held in 2009.

2.1.3. Travel & Transport

Due to the rural setting of this campus, a large proportion of students, staff and visitors access the site using private vehicles. However, many of the students living in Nottingham access the campus by the regular Pathfinder 26 bus service from Nottingham City Centre. The buses have spaces and ramps for wheelchair users.

There are plenty of parking spaces available on site for all visitors, staff, and students. A student car park has been built in Upper Close Field, a few minutes' walk away from the main area of campus, equestrian facilities, and the animal unit. The car park features a permeable surface to slow surface water runoff and a low LED lighting scheme to minimise the environmental impact of the lighting.

Cycle paths run between Nottingham City Centre and Brackenhurst Campus, and the campus is also accessible by bike from Southwell. The university collaborates continuously with local partners to improve and promote these alternative modes of transport and conducts travel surveys every two years to monitor the progress of this work. Students and staff are encouraged to take advantage of the bike hire scheme, more details of which are included in **Section 5.6**.

There are a total of 42 cycle parking spaces on campus. There is a cycle store of 18 spaces with restricted access which serves the student accommodation. There are also spaces for bikes near the Bramley reception and equestrian facilities. The Sustainability Team monitor cycle storage use to assess the ongoing need for new facilities, with 14 spaces recently installed at the new Lyth building.

2.2. Signage

Clear standardised road signage is provided on Nottingham Road advertising the main entrance to the campus; once on campus, signage using the NTU logo and typeface can be found. From the main entrance road, visiting vehicles and cycles are directed to the staff car park located next to the Bramley building, the rest of the campus can be accessed on foot from this point.

Information boards for visitors are provided throughout the campus, including 27 interpretation boards which provide information to the public, staff, students and visitors on the history, ecology, and management of the estate. Beyond the buildings and gardens, fingerposts indicate public rights of way and other boards across the estate provide basic information about the site, as well as contact details for on-site security. The interpretation boards are to be updated as part of the university-wide signage project from 2024.

Maps produced of the campus identify publicly accessible routes, interpretation board locations and features of interest. All of these are also to be reviewed and updated as part of the wider University signage project. Leaflets containing this information are distributed to Southwell Library, Southwell Tourist Information Centre, and Southwell Leisure Centre, whilst also being available at key reception desks at Brackenhurst Campus and publicly on NTU's Sustainability webpages.

2.3. Equal Access for All

Brackenhurst Campus is an important resource for the public and community groups as well as students and academics. It forms an important element of university life and is also a facility used extensively by the local community. Robin Hood Way crosses the site, following Brackenhurst Campus Lane, whilst further public footpaths pass through the campus providing access to the countryside. Permissive access to other parts of the campus is granted subject to a simple code of conduct.

Public involvement is actively encouraged to ensure that the community maximise the opportunities available at Brackenhurst Campus. School groups and community groups use the

site for environmental education activities including pond dipping and farm walks. Further details are provided in **Section 7.** Volunteer groups comprising current and past students, such as the <u>Conservation Society</u>, as well as the wider community, including <u>South Notts Ringing Group</u> and the <u>Nottinghamshire Bat Group</u>, help to maintain the estate and conduct wildlife surveys. Such activities are vital to the long-term conservation of the grounds.



Section 3: Health, Safety and Security

3. Health, Safety and Security

3.1. Appropriate Provision of Quality Facilities and Equipment

Brackenhurst Campus provides staff, students, and visitors with a range of high-quality facilities to meet a broad spectrum of professional, educational, and recreational needs. There are traditional teaching and learning spaces as well as educational animal, agricultural and horticultural facilities. There are also sports facilities, indoor and outdoor social spaces, The Orangery café, and The Refectory, with toilets that are all kept safe and clean.

The new refectory in Lyth offers a range of freshly prepared, snacks and meals, from across the globe every week including great value breakfasts and healthier choices. The NTU Catering Team, work in partnership with the Sustainability Team and Procurement Teams to consider ethical, social, and environmental factors when making decisions on the food and drink products served.



Outdoor seating pod outside of the Lyth Building

Outdoor seating is available across the campus, including outside of the Lyth Building, within the Walled Garden and a log circle outdoor classroom located within the Japanese garden. Toilets are found across the whole campus, with most being publicly accessible.

3.2. Safe Equipment and Facilities

The University recognises that it is necessary to ensure that Brackenhurst remains a safe environment for all prospective site users. To maintain a safe environment, the Estates Department runs a programme of cyclical inspections to identify and address potential issues. Any site user can report a problem to the maintenance department. Issues are then sought to be resolved as quickly as possible.

Equipment used to maintain the grounds is subject to an annual inspection, to ensure that it is safe to use. Built features within the grounds are also subject to inspections and appropriate action taken.

External consultants FPCR Environment and Design Ltd survey all tree stock including woodlands within the campus every 3 years providing advice on their condition. This identifies any trees that are dead, dying, or dangerous; Trees are then maintained accordingly. The most recent survey was undertaken in December 2022. The Landscape Services Manager proactively monitors potential external threats to tree stock, including the national spread of tree diseases, to take pre-emptive action if required.

Water safety is a priority and as such, the risks posed by water bodies have been assessed and responded to appropriately to ensure that the grounds can be safely used. Where ponds are steep-sided or deep, appropriate barriers are installed and the land is maintained around them.



Landscape Services equipment is labelled with a Hedgehog warning sticker.

At Sheepwalk's Pond, access is managed to allow safe views of the lake from the boardwalk and wildlife hide, but fencing and planting prevent access to the water while signage warns of the water depth. Safe access to the Dew Pond is maintained similarly, by routing paths away from the water's edge. Safety checks are made on all barriers as part of the maintenance regime. All ponds on the estate have also been assessed to ensure that wildlife, such as Hedgehogs, would be able to escape if they were to enter the water.

As part of NTU's work associated with the Hedgehog Friendly Campus (HFC) initiative, all strimmers and mowers have been labelled asking users to check for Hedgehogs and other wildlife before using them. More information about HFC is provided in **Section 7.2.**

3.3. Personal Security

Security at Brackenhurst Campus is available 24/7 providing surveillance and helping to give peace of mind to all site users. The Security Team is based in Pippin Cottage and is contactable by all campus users on 0115 848 5262, which is displayed on campus information boards across the site. The Security Team are also all first aid trained and an accessible defibrillator is located downstairs in Pippin Cottage.

The campus is monitored by CCTV cameras, which record 24 hours a day and can be viewed by the Security Team. The network of cameras provides excellent coverage of the campus. The Landscape Services Team works with the Security Team to ensure that views from CCTV cameras are obstacle-free and that good sightlines are maintained along footpaths and other access routes.

Newly installed Emergency Security Points (ESPs) can also be found at the following locations across the Brackenhurst Campus:

Crossroads Junction

Equestrian Centre

Upper Close Car Park

Cricket Pitch Car Park

The ESPs have been placed in these areas following feedback from NTU students and staff that identified where they would be most beneficial.

The ESPs can be used by NTU students, staff, or the public to call our 24/7 Security Team in an emergency. They have an intercom, camera and CCTV that can scan the area. When the button is pushed it will ring like a phone and a Security Officer will answer. You can then talk through the intercom and explain your issue. Our Security can then make an assessment and provide advice, attend the scene, or call the emergency services if needed.

Streetlights provide appropriate levels of lighting along roads and paths around the main campus. Where hedges are located alongside these routes, these are maintained to a maximum height of 1.5m to improve lines of sight for security and maintenance purposes. Lighting installed on the path between the main campus and the Equestrian centre uses LED technology, these lights save energy and cause minimal light pollution whilst improving the safety of the path.

Any incidents of crime are recorded, and annual statistics are produced. This allows the Security Team to review progress and take appropriate action to develop the security policy and reduce the likelihood of any future incidents.

3.4. Health and Safety

The Landscape Services Manager is responsible for ensuring safe working practices within the Landscape Services Team. Risk Assessments and safe working practices are in place and are reviewed regularly. Control of Substances Hazardous to Health (COSHH) Assessments are recorded and updated as required. The Landscape Services Team are trained in their responsibilities under Health and Safety legislation and undertake mandatory training at prescribed intervals.

The university's Health and Safety and Wellbeing Team have developed their own health and safety policy and procedures. All necessary precautions are taken to ensure that the grounds can be used with minimal risk of accident or injury. Suitable and sufficient management practices are in place to address health and safety issues. Due to the nature of the work undertaken on campus, Brackenhurst has an on-site Health & Safety Advisor.

Staff working on the grounds are provided with all necessary protective clothing and equipment. All necessary training is provided to staff, covering topics such as chainsaw use, tree climbing, fire training and first aid. Staff are provided with details of risk assessments and information leaflets relevant to any risks applicable to their job.

3.5. Accident and Incident Reporting

As a requirement of the Health and Safety at Work legislation, the University ensures that all accidents and near misses are reported online using a standard report procedure. Results are monitored centrally by the University, which instructs accident investigations if necessary.

3.6. Dog Fouling

Due to the rural setting of the Brackenhurst Campus and the public rights of way, it is accepted that dog-walkers will pass through and use the site; such use by members of the public is welcomed by NTU. Three dog waste bins were installed in 2016 for these public rights of way.

The character of the main part of the campus, which accommodates most buildings, contrasts with the more rural nature of the remainder of the site. All areas around the main buildings should be kept free of dog faeces therefore dog owners are required to clear up after their dog.

The Brackenhurst Walks leaflet asks users to keep dogs under control and remove any litter from the site. Compliance with these requests is monitored by regular maintenance inspections conducted by the Security and Landscape Services Teams.

3.7. Working Hours

The Estates Department works closely with the timetabling department, NTU Sport and Marketing departments to ensure that there is no conflict with residents or students during exam periods, sports events, or open days. For any disruptions that may be caused to the Estate, staff and students receive virtual Estates Works Notifications in advance of the works, which contain the contact details of site managers in case required. For campus development information, staff and students are directed to a dedicated NTU webpage called Campus Developments.



Section 4: Cleanliness and Maintenance

4. Cleanliness and Maintenance

4.1. Litter and Waste Management

4.1.1. Facilities and Services

The appearance of the campus is a priority for the university and is recognised as a basic requirement for attracting new students. The Facilities Team empties external litter and recycling bins daily, at the same time conducting litter picks and leaf sweeping when necessary. The service operates on weekdays only (excluding events) and priority is given to weekend high-use areas on Monday mornings, such as the area surrounding the Students' Union.

To encourage site users to keep the campus litter-free, general waste and recycling banks are provided extensively throughout the campus. In 2024 all external litter bins across the estate will be replaced for a more cohesive approach to waste disposal. NTU will also be rolling out revised bin signage on all internal bins. This signage will give clarity on the waste acceptance criteria to improve waste segregation rates.

NTU has a fully integrated Environmental Management System (EMS) further details of which are provided in **Section 5.** As part of this system, a series of policies have been written to underpin the sustainability objectives of the EMS. NTU's waste guides are available on the Sustainability webpages, encouraging the use of recycling bins and donation banks.

4.1.2. British Heart Foundation

Clothing recycling banks are found on campus at Halls of Residence, allowing staff, students, and visitors to donate unwanted clothes, footwear, and books to the British Heart Foundation.

NTU Sustainability Team has worked with UPP Ltd and NTSU to promote the locations for donations across three of its campuses. In 2019, this work won the Retail Partner category at the British Heart Foundation Hero Awards. During 2022, the students studying at the University of Nottingham and Nottingham Trent University – both those living on campus and in privately rented accommodation in the city – donated a staggering 6,230 bags of unwanted items to the British Heart Foundation, as part of its Pack for Good Campaign. Raising £87,220 through the sale of the goods at the charity's network of shops, the donations also diverted almost 50 tonnes from landfill, the equivalent of 294,163 kg of CO_2 emissions.

In 2023, over 4,000kg of NTU student waste was diverted from landfill in The Big Clear Out. Between May and September, British Heart Foundation drop boxes and food collection crates were deployed across campus hall receptions so unloved items and spare food items of students moving out of halls could be donated, instead of being thrown away. Over 500 bags of household items and electrical goods, worth over £7,000, were donated to the British Heart Foundation.

These items will be sold in their shops to raise money for vital research, meaning over 4,000 kg of waste was diverted away from going into landfill. Around 25 large crates worth, or 800 kg, of food was gifted to local food banks Himmah and Emmanuel House.

4.1.3. Warp It

The Sustainability Team promote the use of Warp It, an online furniture and equipment reuse portal. All NTU staff can use Warp It to redistribute their unwanted furniture internally. Since September 2018, the internal reuse of 2160 items has saved 67,022kg of CO₂, diverted 26,855kg of waste from landfill and increased resource efficiency with estimated savings of £141,796 on disposal, replacement, and admin costs.

4.2. Horticultural Maintenance

The Landscape Services Team is responsible for the upkeep of the grounds, helping to enhance the outward appearance of the campus. The team meets regularly to discuss priorities at relevant times of the year, such as the clearance of leaves in autumn and the cutting of grass in summer. In addition to a short-term annual programme of maintenance requirements, a longer-term programme is in place to address more complex issues, as outlined in **Appendix B**.

NTU recognises the importance of maintaining the grounds to a high standard as this influences how the public views the site, including the views of potential future students. The team also works closely with students and academics to support the teaching and learning experience. In recent years, students have been encouraged and supported in their work placements with the Landscape Services Team. The student-led Conservation Society, as well as FE Wildlife Conservation Students, also undertake tasks across the site on an ad hoc basis and are part of teaching, including hedge laying, pond clearing and brush cutting along with habitat creation projects.

The ongoing Landscape Services operations fulfil the maintenance requirements of the diverse landscapes of the campus, however, certain areas of Brackenhurst Campus require a more specific maintenance regime, which is covered in more detail below.

4.2.1. Formal Gardens

The formal gardens are comprised of the Rose Garden, Sunken Garden, Japanese Wilderness, formal lawns, and Dew Pond. These are bounded by a ha-ha to the south and east. These gardens present a maintenance challenge due to their formal nature and historic character. Whilst modern landscapes are usually designed so they are not a maintenance burden, historic gardens had no such aims, as country estates such as Brackenhurst Campus would be served by

numerous gardeners who were tasked with the job of keeping such features as the lawns, topiaries, and roses in pristine condition.

As the current Landscape Services Team is limited in terms of resources, priorities must be identified and programmed appropriately to ensure the conservation of heritage assets. These priorities are outlined in **Appendix B**. This document helps to serve as a guide for the Landscape Services Team, which can support the prioritisation of short-term and long-term tasks; in turn, ensuring that the heritage contained within the gardens and grounds is conserved. The conservation and restoration objectives regarding site heritage are covered in further detail in **Section 6**.



Japanese Wilderness and Willow Pattern Bridge

4.2.2. Walled Garden

The walls of the Edwardian Walled Garden are Grade II listed. This feature remains a vital resource that is used throughout the year by students and academics. The garden is also an important resource which supports wildlife at Brackenhurst Campus, with a hedgehog maternity nest being found in the garden in 2024.



Walled Garden

4.3. Tree Maintenance

An assessment of tree condition is undertaken for the entire site by external consultants FPCR Environment and Design Ltd every three years. Adapting the assessment to also include educational uses of the varied range of trees is currently being explored. The campus consists of a range of mature heritage ornamental trees, young and semi-mature woodlands, orchards, mature native parkland trees and a varied mix of trees around the buildings and gardens. Outputs include site plans which identify the location of every tree or group of trees by a code. A database linked to the plans lists the species and condition of each tree, identifying any maintenance work that needs to be conducted. The Landscape Services Team uses this active database as a tool to manage the tree stock. Landscape Services staff conduct on-going surveys of 'at risk' trees.

This Arboriculture policy is extended to the parkland trees within the curtilage of the listed Main Hall. The trees in the first, second and third park fields comprise an important aspect of the view from the Hall, making their management and succession an important task. The Brackenhurst Farm and Landscaping teams are in discussion about the successful planting of these trees.

In addition to their amenity value, trees are also important for education and Brackenhurst Campus prides itself on being an outdoor classroom. Students are taught chainsaw skills as well as tree management techniques, such as coppicing, pollarding and crown reduction. Teaching staff work closely with the Landscape Services Team, who can advise on which trees require appropriate maintenance.

4.4. Hedgerow Management

Between 1947 and 1985, the East Midlands lost an estimated 16,000 miles of hedgerows due to pressures on farmers to intensify their production. Although hedgerow removal has slowed markedly it continues and, despite hedge-planting operations, there is still a net annual loss of hedgerows in the UK.

Forty-three different native and non-native woody species and hybrids occur in Brackenhurst hedges. Many of the hedges at Brackenhurst show the full range of hedgerow habitat zonation with uncultivated field margins or roadside verge of more than 2m width on one or both sides, hedge bank or hedge and ditch. The hedgerow management plan includes a cutting rotation of once every 2 or 3 years to maximise the habitat available for farmland birds. The hedge-cutting regime is amended and conducted by the Farm Manager in consultation with ecologists from the wider ARES staff team and external consultancies.

At Brackenhurst, there is a duty of care for public safety and access related to the management of hedges that border roads and public rights of way. These hedges require cutting at least once annually.

4.5. Building and Infrastructure Maintenance

Buildings on the campus are diverse in terms of age, scale, style, and use ranging from the original Main Hall built in 1828 to the modern Lyth Building completed in 2020. These buildings have specific functions for teaching, research, administration, or residential purposes, but all share the same setting. All buildings are maintained to a high standard by the Estates Department. Listed buildings often require special permission for maintenance works to ensure that the method of working and materials used are appropriate to the building. An on-site maintenance team is responsible for the upkeep of the buildings.

4.6. Equipment Maintenance

A programme of equipment inspections is in place to ensure that all work equipment is safe to use, as required by the Provision and Use of Work Equipment Regulations 1998. Appliances are PAT tested, to comply with the Health and Safety at Work Act (1974), which places a duty on employers to ensure that electrical appliances used by employees, or the public are safe to use.

Six-monthly inspections are conducted on tree climbing equipment under the Lifting Operations and Lifting Equipment Regulations 1998.

NTU's vehicles are managed by Campus Services, who ensure that they are serviced, tested, and inspected as required. Specialist vehicles, such as tractors, are either owned or leased. ARES staff also manage the vehicles used on the farm and for teaching purposes. Servicing and maintenance of lease vehicles are included in the lease fee.

An onsite closed loop system vehicle wash-down facility, located within the Brackenhurst Workshops compound, helps to maintain and clean landscape machinery and equipment, as well as NTU fleet vehicles to keep them clean, safe, and fit for purpose.

4.7. Maintenance Planning

The Landscape Services Team are flexible to changing conditions, undertaking tasks as needed such as gritting roads in icy conditions and clearing tree debris after strong winds. Day-to-day maintenance is discussed as a team, with objectives and actions agreed upon with the Landscape Services Manager. Works with health and safety implications are given the highest priority. The Team also has a tree replacement policy, aiming to plant at least one new tree for every tree removed through maintenance.

Cyclical maintenance activities, such as shrub bed maintenance, planting of summer bedding, mowing, and strimming, are all undertaken by the Landscape Services Team. An example planning document for this work is provided in **Appendix A**.

The longer-term maintenance requirements are driven by the promotion of higher education as well as the conditions of features on the campus. The long-term maintenance programme has most recently been driven by building developments at the campus, including the library, glasshouse complex, new student accommodation and Lyth building.



Section 5: Environmental Management

5. Environmental Management

5.1. Managing Environmental Impacts

5.1.1. Policies and Pledges

NTU is committed to recognising and reducing its impact on the environment. NTU's Environmental Policy is publicly available via the NTU Sustainability webpages. As of December 2023, NTU is rated a first-class University in the People & Planet League and placed 2nd in the University of Indonesia Green Metric World University Ranking.

The University has several other policies relevant to environmental sustainability. These are reviewed annually by senior management. They are all available on NTU's <u>Sustainability web</u> pages and include:

- Biodiversity Policy
- Net Zero Carbon Policy
- Plastic Pledge
- Student and Staff Engagement Strategy
- Sustainable Construction Policy

- Sustainable Food and Beverage Policy
- Sustainable Procurement Policy
- Transport Policy
- Waste Policy
- Water Policy

NTU has pledged to achieve Net Zero Carbon (NZC) emissions by 2040 to create a Zero Carbon culture across the NTU community. NZC by 2040 is now an institutional strategic KPI and NTU has set out key milestones to reach on the journey to net zero carbon for 2025 and 2030. It will not only include tackling carbon emissions associated with energy use across the entire NTU estate but also emissions associated with those activities that NTU has less control over, known as scope 3 emissions.

5.1.2. Staff Training

The Sustainability Team run monthly staff Sustainability Awareness at NTU sessions for all colleagues, including new starters, and delivers Environmental Awareness Training for NTU Estates and Campus Services staff. The training allows staff to gain an understanding of sustainability at NTU, understand their responsibilities as staff members and find out ways they can get involved with sustainability projects and events. Sustainability Awareness training can also be accessed as an online awareness training module on Thrive.

5.2. ISO 14001

Established through the 'EcoCampus' scheme, NTU's Environmental Management System is aligned with the ISO 14001 standard, initially gaining certification in November 2012.

ISO 14001 is an international standard and provides a framework for identifying and controlling environmental aspects, improving environmental performance, and ensuring legal compliance.

This certification assures us that NTU has the systems in place to help effectively manage and mitigate our environmental impacts and reach our sustainability objectives.

5.3. Pesticides and Herbicides

Integrated Pest Management is used across the estate to support the maintain of the landscapes. This is an effective and environmentally sensitive approach to maintaining the landscapes and relies on a combination of environmentally sound practices.

The use of pesticides is minimal, only utilised where tasks dictate and always used in accordance with legislative guidance. Pesticide use is part of an integrated regime, where cultural and biological control measures are undertaken where necessary within maintenance schedules. Herbicides are used for weed control in certain areas, as well as turf fungicides and insecticides, where appropriate to do so. All ground maintenance staff have been fully trained in the safe application of herbicides and hold appropriate certification. Biological controls are also applied within the glasshouse setting as needed.

5.4. Composting and Elimination of Pesticide Use

To help minimise the wider environmental impact of our landscaping work, peat alternatives are used on campus, including compost made on-site. However, peat is used for teaching, research, and experimental practices by the school. The campus participates in active research into peat alternatives as growing media and undertaking growth trials on a range of plants.

Due to the extensive grounds at Brackenhurst Campus, a large quantity of horticultural waste is produced. Horticultural waste from the grounds is recycled to produce compost or mulching material. Landscape Services staff segregate woody material (used for mulching) and softer materials such as autumn leaves (for enriching soil). The team uses a composting machine, and a chipper is used to break down the landscape waste.

5.5. Nottingham City Transport (NCT) Number 26

During term-time, the number 26 Pathfinder bus connects the Brackenhurst Campus to Nottingham City Centre. With the bus departing every 30 minutes, a sheltered bus stop at the campus exit provides students who live off-site with easy access to the city.

In Spring 2019, NTU funded the replacement of the bus passenger shelter on the A612 after an NTSU campaign for better facilities. The new shelter for the Pathfinder 26 bus services has 5 times the footprint of the previous providing a significantly larger space for waiting passengers. There is also upgraded lighting for added safety.

The 26 Pathfinder fleet was replaced at the beginning of the 2019/20 year by the latest clean buses with Euro IV engines which emit a fraction of the emissions compared to the previous fleet.

5.6. Cycling

NTU promotes cycling due to its ability to enhance individual wellbeing and helps to reduce the University's impact on the environment. Various services are available at NTU to make cycling more accessible to and around the University:

- 200+ bikes available for hire to staff and students.
- 300+ spaces in secure compounds for cycle storage.
- Changing rooms and locker facilities.
- NTU workshop with expert mechanics and advice available.
- Free maps and training.

The university hosts a Cycle Hub, which encourages staff and students to cycle more often. The project runs a range of activities including infrastructure improvements on and between campuses, promotion of cycling via social media, engagement events and a bike hire scheme for students and staff. The Cycle Hub offers high-quality hybrid bikes to hire for NTU students and staff for £49, which are ideal for cycling around town. Individuals who hire a bike are also provided with a free D-lock, free bike lights, a free winter maintenance session, maintenance advice throughout the year and access to secure cycle storage at all campuses. A £60 deposit is required for all hirers, which will be refunded when the bike is returned on time and in a satisfactory condition. The Cycle Hub also has 18 e-bikes that are available to hire at the cost of £75 plus a £125 deposit, refunded on the return of the bike. E-bikes have a hire period of a term which works out at an approximate cost of just £5 per week!

<u>NTU's Sustainability webpages</u> provide staff, students, stakeholders and the wider public with upto-date information on cycle facilities such as maps showing locations of cycle compounds, cycle routes, lockers, and showers (Figure 2). The website also provides information to the public on topics such as buying a bike, bike maintenance and cycle clothing. Further cycle information is planned to be incorporated into the external campus information boards found across the campus in the future.

Currently, 85 spaces are provided for bicycles on campus. Many of them are housed in restricted access shelters with CCTV and swipe card access, sheltered coverage and Sheffield stands. In line with the travel plan, cycle facilities at the campus are in the process of being upgraded, providing more covered and restricted access cycle parking.

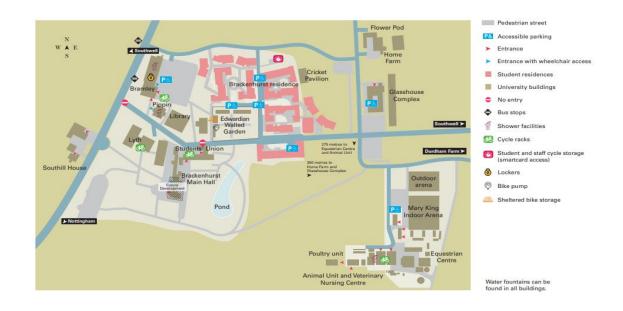


Figure 2: Map of Brackenhurst Cycle Facilities

5.7. Electric Vehicles

ARES has just bought a new fully electric pool car and the Landscape Services team also has two electric vehicles. Landscape Services uses and maintains its own John Deere electric-powered gators (all-terrain utility vehicles) and a wide range of handheld battery-powered machinery for on-site maintenance. The library, Digital Technologies and Postal Services all have electric vehicles alongside the entire Security Fleet.

NTU has 32 EV charging bays across our City, Clifton and Brackenhurst Campuses. Colleagues can use these to charge their electric vehicles. Five of these are dedicated accessible spaces for blue badge holders. Brackenhurst Campus hosts a total of six bays, including two accessible, in Bramley car park.

5.8. Solar Photovoltaic Panels (PV)

The PV generation is concentrated across five buildings: The library, Mary King Arena, Poultry Unit, Lyth, and the New Brackenhurst Residence. In 2022/23 they generated 307,659 kWh of electricity, saving up to 63 tCO2e. The Equestrian Centre presents 400 photovoltaic panels on the estate, generating 23,330 kWh in 2022/23.

5.9. Combined Heat and Power (CHP) Plant

There are two CHP units on the Brackenhurst Campus, fuelled by natural gas. These supply the halls of accommodation and Main Hall providing heating as well as cooling in the summer. They can generate 210 kW of electricity and 300 kW of heat for the campus per year.

All NTU's electricity is backed up by Renewable Energy Guarantees of Origin (REGO) credits.

5.10. Biomass Boiler

A Biomass boiler installed in 2012 adjacent to the glasshouses has the potential to save up to 410 tonnes of carbon dioxide per year. It is currently used to heat the hot water for the accommodation block, the Medlar building, and the library.

The Biomass boiler has been extended with a new CHP to provide low-carbon heating for both of the newest buildings on the campus (Lyth building and new student accommodation).

5.11. Wind Turbines

During 2013/14 NTU submitted proposals to install 2 wind turbines at Brackenhurst Campus and in the process make Brackenhurst the UK's first carbon-neutral campus. The turbine project was subsequently rejected at appeal by the Secretary of State.

NTU will continue to look for opportunities to generate renewable sources of energy at Brackenhurst.

5.12. Environmental Management Review Committee

The Environmental Management Review Committee is held bi-annually and ensures that the University's Environmental Management System is implemented successfully across the NTU estate. The objectives discussed and reviewed include waste reduction, sustainable transport, reduction of energy-related emissions, reduced water consumption, sustainable procurement and conserving and enhancing biodiversity.

5.13. Engagement

In January 2019 NTU launched Green Rewards, a programme for all students and staff to sign up to and take part in. Participants earn rewards for taking actions that reduce their impact on the environment, positively impact the local community and boost their health and well-being. As of January 2024, NTU has 5111 staff and students signed up to the Green Rewards platform with 358,528 actions completed which has led to a saving of 704,536 kg of CO₂.

As of January 2024, 38 staff are currently signed up for the "Colleague Sustainability Rep" Scheme. The scheme consists of department representatives who are encouraged to engage with the ST and report any issues and suggestions across the campus landscape and operations. Termly meetings are held with the group, and a Microsoft Teams Network allows continual discussion.

The Sustainability Team run monthly staff awareness courses for all colleagues, including new starters. The training allows staff to gain an understanding of sustainability at NTU, understand

their responsibilities as staff members and find out ways they can get involved with sustainability projects and events.

5.14. Fairtrade

NTU has been awarded Fairtrade University status for the last 13 years. Fairtrade products are available in all campus shops and catering outlets and used in all meetings hosted by the University and the Students' Union.

Fairtrade Fortnight events are held at NTU each year to raise awareness of the impact of Fairtrade amongst staff and students. This is led by the Fairtrade Steering Group who demonstrate a strong commitment to increasing Fairtrade consumption on all NTU campuses. The Sustainability Team and Fairtrade Steering Group achieved the new Fairtrade Universities and Colleges Award (FTUC) under the updated criteria in 2019. In 2022 we retained our accreditation; the next audit will take place in 2024 and actions are underway to retain our status.

5.15. Climate Change and Adaptation

As one of the UK's largest universities, NTU acknowledges that its activities will significantly impact the environment at both local and global levels. As such, NTU aims to reduce the impact of all activities that can contribute to climate change and take a holistic and integrated planting approach to landscape management to adapt to the impacts of climate change.

An example of this is that Landscaping Services has stopped the purchase of peat-containing compost and is currently experimenting with products and samples which can replace peat-containing products. The Landscaping Services team have also been adapting the management of the Brackenhurst Campus to combat the impacts of climate change. This means that the species selected are continuously reviewed and can be tailored to drought-tolerant species when required, as well as utilising more advanced stock that can become established quicker.



Section 6: Biodiversity, Landscape and Heritage

6. Biodiversity, Landscape and Heritage

6.1. Management of Natural Features, Wild Fauna, and Flora

The estate supports a vast array of wildlife making it an ideal outdoor classroom. There is a network of ecologically important habitats within the estate; Local Wildlife Sites (LWS) have been designated for Brackenhurst Hall Gardens and Halloughton Dumble, highlighting their local ecological importance. Habitats of Principal Importance on the campus include hedgerows, ponds, semi-natural woodlands, semi-improved grassland, <u>wildflower meadows</u>, wood pasture, parkland and remnants of traditional orchards. The management of Brackenhurst incorporates opportunities for scientific research and student involvement wherever possible.

The farmland and its habitats support a diverse range of flora and fauna, including European Protected Species such as the great crested newt (*Triturus cristatus*) and various bat species including soprano pipistrelle (*Pipistrellus pygmaeus*) and common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's bat (*Myotis daubentonii*), noctule (*Nyctalus noctule*) and brown longeared bats (*Plecotus auratus*). Nationally protected species present within the site include badgers (*Meles meles*) and, Species of Principal Importance at Brackenhurst include hedgehogs (*Erinaceus europaeus*), Eurasian otter (*Lutra lutra*), European hare (*Lepus europaeus*), common toad (*Bufo bufo*), yellowhammer (*Emberiza citrinella*), kingfisher (*Alcedo atthis*), barn owl (*Tyto alba*) and tree sparrow (*Passer montanus*). In 2022, a polecat (*Mustela putorius*) was <u>recorded on campus for the first time</u> as part of a student project.

Over 200 bird species have been recorded at Brackenhurst; there are also over 200 nest boxes housing passerines and birds of prey. Students can take part in the annual Big Garden Big Watch (an RSPB initiative) from the comfort of The Orangery, hosted by NTSU.

Bug hotels have been installed as part of compensation work for new developments, student projects and engagement activities. These important insect refuges have been used in student research projects investigating their effectiveness near recreational land use.

NTU is also a Gold accredited as a Hedgehog Friendly Campus (HFC) for the Brackenhurst, Clifton and City Campuses. More information on HFC is provided in **Section 7.2**.

Management techniques deployed across the estate ensure that the potential for biodiversity is maximised, resulting in a diverse range of habitats.



Examples of Bug Hotels found across the Brackenhurst Campus

As part of the conservation remit of the University, horticultural staff at the school are responsible for looking after a seed bank on behalf of the Heritage Seed Library. This involves growing rare and old varieties of vegetables that are in danger of being lost to cultivation. They are often old strains of vegetables where seed has been saved and handed down through the generations in local communities and families or may be Victorian varieties that are no longer offered in catalogues.

6.1.1. Great Crested Newt Conservation

Most of the ponds within the built environment of the campus have significance as breeding locations for Great Crested Newts (GCN) and all the ponds add to the richness of the site's biodiversity. The Dew Pond is currently the principal breeding stronghold of the site's GCN population. Since 2017, NTU has collaborated with Natural England to produce a landmark new plan for great crested newts at Brackenhurst, with the goal of making the campus the best example of farmland for great crested newt habitat in the region. This partnership has resulted in the first Phased License of its kind in the UK, which establishes a plan to <u>build new ponds</u>, improve existing ponds, and change the management of hedgerows, field margins and woodlands that connect the aquatic habitats. The entire habitat network is expected to be completed in 2025. Other amphibian species within the estate include the common toad (*Bufo bufo*) and smooth newt (*Lissotriton vulgaris*).

As part of the library construction project in 2012, four new hibernacula were introduced adjacent to the Bramley car park and behind the Ash accommodation block which links through to the lagoon. A series of hedgerows completes the habitat corridor – ideal for GCN. A woodland strip on the Brackenhurst Lane bund further improves connectivity to the wider estate.

6.1.2. Bat Box Monitoring Project

Barbastelle bats (*Barbastella barbastellus*), one of the rarest species of mammal in the UK, were recorded at Brackenhurst Campus for the first time in 2023 by the Conservation Society and Nottinghamshire Bat Group.

Following the new recording, the Sustainability team and FE Wildlife Conservation students started a 'Bat Box Monitoring Project.' A total of 30 new bat boxes have been installed throughout the campus. These will be monitored annually under licence and will aid in the local records of the distribution of bats in Nottinghamshire.

6.1.3. Invasive Species Management

Brackenhurst is regularly monitored for invasive species that threaten native habitat structures. Methods of control are put in place for any invasive species that are or become present within the estate, with the aim of eradicating invasive species wherever possible.

An example of this was noted in November 2015, when one of the mitigation ponds was affected by New Zealand pigmyweed (*Crassula helmsii*). Works have since been completed to bury the invasive Crassula within the area with material from adjacent ponds. The Landscape Management Team at Brackenhurst have remained vigilant to the threat of the species on site with the support of FE Wildlife Conservation Students. Giant Hogweed was found on the estate in 2023, which was promptly spot-treated by Landscaping Services who continue to monitor the affected area.

6.1.4. Woodland Management

Areas of woodland around the edges of the campus are mainly comprised of native species such as Oak, Ash, and Field Maple. The woodland is managed to promote biodiversity by allowing interesting ground flora to grow and creating additional habitats, such as log piles and leaf piles, to provide shelter for invertebrates, amphibians, and hedgehogs.

Standing dead wood and fallen timber is left in situ unless posing a safety hazard to footpaths, roads, or highly public areas. This provides biodiversity benefits to a variety of species including invertebrates and birds. Where practicable and safe to do so, as much standing dead wood is left as possible and tree stumps are cut as high as feasible to encourage invertebrates that are dependent on dead or decaying wood.

Potential external threats to tree stock are proactively monitored, including the national spread of tree diseases; pre-emptive action is undertaken if required. During the outbreaks of Ash dieback, no cases were reported on the Brackenhurst Campus due to the vigilance of the Landscape Services Team. If a case were to be reported the best practice procedures would be followed.

6.2. Water Conservation

As described in **Section 1**, the Dew Pond is filled naturally from rainwater collected from the Main Hall. Other waterbodies found across the campus also rely on surface runoff.

Rainwater collected from the largest glasshouse on site is stored in an adjacent reservoir and used to water plants within the glasshouse complex. Summer bedding schemes use water-retaining granules or gel to reduce drying-out as well as reducing the frequency of watering required. Water used by the wash-down facility, located within the Brackenhurst Workshops compound, is pumped around the system to be re-used.

6.3. Planting Policy

Across NTU, the planting of native nectar and berry-producing species of local provenance is prioritised across the estate's landscaping. Where non-native plants are used, it is ensured that they are carefully selected to enhance biodiversity. Native species are largely used for planting and replacement of trees, woodland, and hedgerows, to promote biodiversity through the creation of appropriate wildlife habitats. Recent tree and hedgerow planting adjacent to Nottingham Road are examples of this. However, a diverse mix of native and non-native planting can be found in the glasshouses, the Edwardian Walled Garden, and the formal gardens. New planting is undertaken as part of development schemes.

The £100k glasshouse facility at Brackenhurst Campus can produce a mix of seasonal bedding plants throughout the year, which are raised from seeds and plugs. This provides a wide range of plant materials for estate projects across all campuses. If necessary, nurseries are used to provide additional plants. The glasshouse has a turnover of approximately 30,000 plants, plugs, seasonal bedding as well as any other propagated material from seed or cuttings, satisfying a large majority of all soft landscaping requirements across NTU campuses.



ConSoc Wildflower Meadows in Full Bloom



ConSoc Students Sowing Wildflower Seeds by Student Accommodation

6.4. Conservation of Landscape Features

The 200-hectare site is home to a wide range of planting, from formal planting around the Main Hall to woodland and meadow planting in the wider estate.

The formal gardens not only provide an important setting for the Main Hall but also inspire horticulture and garden design students. Planting responds to the historic nature of the estate to ensure that an appropriate setting is provided. Replacement planting in the formal gardens is consistent with species previously planted. Several native fruit trees have been planted around the farm estate in each of the last three years. The varieties used are all locally sourced and represent traditional Nottinghamshire strains of a range of fruit trees.

An Elm Avenue is found within Third Park (directly south of the Main Hall), designed to replicate a historic avenue which is identified on the Ordnance Survey map from 1919. Within the field directly east of the Main Hall (First Park), the remains of the ridge and furrow (a result of farming practices during the Second World War) are clearly visible. All three fields bordering the ha-ha retain their original parkland character due to the management techniques employed. No intensive agricultural methods are utilised in these areas to ensure that the ridge and furrow are not damaged or lost and mature parkland trees are retained.

First shown on the 1919 OS map, an avenue of elm trees is identified immediately north of the Main Hall, laid out in a north-south alignment, which would have lined the new drive proposed by Hicking. Due to a dispute with a neighbouring farmer, the drive was never built. These trees were previously felled, but in recent years, 34 elm trees have been planted to replicate this avenue.

Students are actively encouraged to volunteer with plant conservation as well as replanting. The Conservation Society based at the Brackenhurst Campus is active in carrying out the conservation work required. Students and volunteers from the wider community participate in many events related to the natural environment such as woodland planting and hedgerow management. An example of this is the <u>Conservation Society (ConSoc) sown wildflower</u> <u>meadows</u> located outside areas surrounding accommodation blocks as part of their efforts to create habitats and support species on the campus. The suite of glasshouses and poly-tunnels are excellent facilities which can be utilised by staff and students for horticulture. In contrast to these modern additions, the Walled Garden offers a more traditional setting to learn planting techniques.

6.5. Hedgerows

NTU academic staff and students carry out an on-going programme of hedge laying, gapping, and planting as part of formal studies on campus. Students also carry out hedgerow management

voluntarily. Management practices undertaken aim for larger and well-connected hedges with structural and species diversity, to improve connectivity across the estate.



Example of hedge laying undertaken by FE Wildlife Conservation Students

Established and healthy hedges are managed on a 2 or 3-year rotation, allowing species to flower, ensuring thick nesting cover, and providing insect habitat across the estate. Hedges are only managed from September to February to ensure the protection of birds throughout the nesting season. Hedges which neighbour roads and footpaths will be managed from September due to health and safety requirements; where there are no health and safety requirements hedgerows will be left until January to allow for wintering fruit production for birds.

Some hedgerow surveys take place each year but are usually in the form of training and learning events rather than formal and systematic surveys for monitoring purposes.

6.6. Conservation of Buildings and Structures

The campus boasts a rich heritage, comprising the Main Hall as well as associated buildings and grounds dating from 1828. Many of these buildings and features are still in existence. **Section 1** of this document gives a concise history of the site and describes the historic features. The University recognises the importance of conserving these and has invested significantly in past years to preserve them.

The following list provides details of the Grade II listed buildings and features contained within the campus:

- Brackenhurst Hall and Attached Coach House
- The Orangery and Garden Wall
- Garden Walls and Bothies 100 metres Northeast of Brackenhurst Hall
- Lodge to Brackenhurst Hall
- Gateway and Railings at Brackenhurst Hall
- South Hill House
- Brackenhurst Campus Farmhouse

In addition to the above features, the Ordnance Survey map from 1919 identifies the following features.

- The Rose Garden
- The Sunken Garden
- The Japanese Wilderness
- The Dew Pond, Boat House, and Willow Pattern Bridge
- A Well
- A Summer House
- The Cricket Pavilion
- An Orchard
- An Avenue of Trees (south of the Main Hall)
- Parkland
- A Weather Station

Other than the Orchard (which has been replaced by student accommodation), the Weather Station and the Summer House, the features listed above are still in place. Conservation work by the building's maintenance team prioritises jobs to ensure the long-term survival of these features for all current and future site users to enjoy.

Due to the historic nature of the Brackenhurst Campus, conservation work plays an important part in the overall maintenance. The upkeep of the formal gardens forms part of the day-to-day maintenance regime for the campus, but certain elements of the gardens and grounds require a longer-term conservation and restoration strategy.

The Landscape Services Team works on a priority list for conservation and restoration work. Future aims include the restoration of the pergola in the Rose Garden and the gates to the Walled Garden, subject to available funding.

During 2021, NTU worked with external heritage consultants who have issued a first draft Brackenhurst Conservation Statement providing guidance on future maintenance and improvements required, challenges and opportunities and an action plan detailing a summary of interventions to be undertaken.

6.7. Rose Garden Pergolas

As described in **Section 1**, the Rose Garden was restored in 2009 following funding donations from a former lecturer and students. The restorative work included planting roses and the installation of a sundial and benches, but insufficient funds were available to restore the Italianstyle pergolas, which date from between 1899 and 1919. Funding is yet to be sourced.

The two pergolas are situated on the west side of the Rose Garden and comprise red clay tile piers with oak cross-members. The path linking them is a mixture of York stone flags, brick basket weave and circular section edge tiles. The northern pergola remains accessible, although is covered with ivy. The other pergola is currently unstable, so protective fencing prevents access beneath it. Both pergolas are likely to require taking down and rebuilding; due to their non-standard construction, reinforcement to the piers will be required. The oak cross members will also require replacement. The uneven path may require relaying for safe pedestrian and wheelchair access. This work is likely to require external grant funding, which is still being sought. Planning will consider mitigation for any potential habitat loss.

On the southern boundary of the Rose Garden lies a semi-circular pool at a slightly lower level than the rest of the garden. A low wall with piers surrounds the curved edge of the pool constructed from red clay tiles and stone copings. The piers are much reduced in height from their original state and bronze figures from the pool have also gone; unfortunately, the stone copings are crumbling. Restoration works were undertaken on the Rose Garden Pond in 2022, which has now been planted with vegetation selected and designed by FE students to create an ideal amphibian habitat.

6.8. Gatehouse Wall

When the Main Hall was still used as a private residence it was accessed via the driveway from Nottingham Road, next to the Grade II listed gatehouse.

A semi-circular wall with tall railings and stone piers stands at the entrance to the drive. The copings on the northern side are either missing or crumbling. As part of the new Lyth building developments, the rusty gates, and railings, including the coat of arms, will be restored, and painted to their original condition.

6.9. Gates to Walled Garden

The Grade II listing status placed on the Walled Garden covers the Garden walls. The Walled Garden gates need restoration and painting while the others will need to be replaced. Currently, there are no plans in place for this restoration as this is subject to funding being sourced.



Walled Garden Gates

6.10. Bramley Apple Tree

Nottingham Trent University Brackenhurst campus and academics featured on BBC2 Countryfile on the 20th of August 2018. The report detailed the recent purchase of the original Bramley apple tree in Southwell which unfortunately is dying because of an incurable honey fungus infection. The tree is at least 200 years old and horticulture staff and students have conducted initial assessments of the tree and then set about carefully tending it to prolong its life. Grafts of the original tree will also be replanted at the Brackenhurst Campus. The original Bramley Apple Tree and the wider campus were also featured in Notts TV's <u>The Nottinghamshire Garden</u> in 2023.



Section 7: Community Involvement

7. Community Involvement

7.1. Community Events

7.1.1. Forest Schools

Forest Schools offer a unique educational experience by using the outdoor environment of the forest as a classroom, based on the principle that open-air play can help children develop personal, social, and technical skills. NTU has worked with Lowdham Primary School, to create a Forest Schools space at the Brackenhurst campus in Millenium Wood. The facilities are also used by Nottinghamshire County Council as part of their <u>Environmental Education Centre</u> and Notts Outdoors Programme, which provides individually tailored days for young people and adults to experience quality outdoor learning experiences. Activities on offer include a <u>Stone Age Experience</u>, <u>Minibeast Hunting</u> and a <u>WWII Evacuees Experience Day</u>.

7.1.2. External Conferences, Events and Meetings

The Nottingham Farm Business Association hold meetings at Brackenhurst every Monday throughout winter. In January 2020, George Eustace (Minister for DEFRA) gave a talk on the new Agriculture Bill currently going through Parliament.

The Derbyshire and Nottinghamshire Entomological Society (DaNES) stages an annual event which takes place on campus every other year and is open to the public as well as students. The Insect Show event allows members of the public to view insect specimens, to encourage interest and build an understanding of conservation concerns. The most recent event was held in November 2023 and included informative displays, stands and live exhibits from numerous organisations with short talks held throughout the day.

Brackenhurst is the ideal location for organisations supporting the Animal, Rural and Environmental Science industry to host meetings and conferences, or to present their products and services within a lecture theatre, exhibition space, classroom environment or outdoors. The Mammal Society's 68th Annual Conference was held at Brackenhurst in August 2023 and the British Dragonfly Society also held their annual meeting at Brackenhurst in November 2023 for members and students to discuss dragonfly conservation.

NTU also hosts the annual Nottinghamshire Biodiversity Action Group Forum. This event entails over 100 conservation volunteers and representatives from ecological consultancies attending talks from high-profile speakers and taking part in workshops to advance species and habitat monitoring and conservation in Nottinghamshire.

Nottingham Beekeepers Association has a training apiary at Brackenhurst Campus, which is used to teach members and the wider public about beekeeping practices. In September 2019, they hosted a Honey Show on campus.

The University often arranges seminars on subjects relating to Brackenhurst research which are open to NTU students and staff. Most recently, Emily Stott from the University of Oxford's <u>Nature</u> <u>Positive Universities</u> initiative delivered a Great Minds Lecture which was free and open to all. The lecture focussed on how universities can use their power and influence to help lead their communities on a Nature Positive journey, building resilient ecosystems, helping nature to recover and limiting climate change.

In the past, tree-planting events involving the wider community have taken place at Brackenhurst Campus. In 2018 local groups from Nottinghamshire Wildlife Trust and AgeUK were invited to take part in planting new areas of woodland.

7.1.3. Biodiversity Conservation & Surveys

The South Nottinghamshire Ringing Group has a permanent ringing site on the campus which involves students and volunteers in bird ringing, producing valuable information about bird populations which contributes to nationally important data collection.

National Amphibian and Reptile Recording Scheme (NARRS) have used the ponds on site to assist in training volunteers to help their recognition of a range of amphibians, including the Great Crested Newt.

In September 2023, the charity Buglife visited Brackenhurst to sow wildflower seeds and plant wildflower plugs along the bund of Brackenhurst Lane. The event was run by the NTU Sustainability Team and the Students Union as a "<u>Give it a Go</u>" activity.

7.1.4. Partnerships With Southwell Community Groups

The Southwell University of the Third Age has hosted events on campus and taken part in wildlife surveys outside of term time.

Southwell Flood Forum hosts annual events at Brackenhurst, with topics including community resilience to flooding and emergency planning.

Southwell Civic Society co-hosted a Heritage Day with NTU at Brackenhurst in September 2016, inviting over 150 members of the public to Brackenhurst for tours of the heritage features of the Hall and gardens. The event has taken place every year since. Southwell Civic Society also invited NTU to take part in the Southwell Heritage Day event on the Burgage in September 2016. Brackenhurst staff provided a stall at the event with example exhibits from the collection of agricultural museum pieces.

Rogation is an event which occurs each May when the people of Southwell meet to pray for fine weather, good crop yields and healthy animals. Traditionally the School jointly hosts the service with Southwell Minster, Nottinghamshire Farmers' Union (NFU) and Nottinghamshire Young Farmers' Club (YFC). The first half of the service takes place in Southwell Minster, whilst the second half involves a procession up the lanes to Brackenhurst Campus, stopping at intervals on the way to bless the crops and animals.



Students sowing native wildflower seeds and planting plugs with Buglife, the Sustainability Team & NTSU

7.1.4. Open & Away Days

Open Days offer another opportunity to all sections of the community, giving people with an interest in higher education a chance to view and use the facilities. A full programme of site-wide open days is advertised widely, with temporary signage provided on roads to ease access.

The campus hosts Open Farm Sunday in June with Linking Environment and Farming (LEAF). The public is encouraged to enjoy tours, talks and demonstrations encouraging the public to engage with agricultural issues. The nationwide 2015 Open Day, celebrating the tenth anniversary of Open Farm Sunday, involved 400 farms, and attracted over 500 people at Brackenhurst, leading to it being dubbed "the industry's open day". In 2017, Open Farm Sunday attracted more than 1,500 attendees.

New facilities among the farm buildings include the cattle roundhouse, a new concept for housing animals that minimises stress for both handler and stock. It is hoped that new infrastructure like the roundhouse will further draw the community to Brackenhurst for Open Farm Sunday events.

Team building away days are also a fantastic opportunity to bring staff usually based in the city or at Clifton Campus the opportunity to experience the Brackenhurst Campus. In October 2018, the University's Executive staff members volunteered with the Landscaping Team at Brackenhurst.

7.2. Flower Pod

The University works with Reach, a registered charity dedicated to supporting people with learning disabilities in Nottinghamshire. In 2012, the charity established the Flower Pod which is a 1.5-acre green space leased by NTU on the Brackenhurst Campus. The Flower Pod is a mature garden and purpose-built working space, with outdoor experiential learning offered all year round. The low-carbon footprint building incorporates sustainable materials such as straw-bale walls, lime rendering, sheep-wool insulation, and concrete and recycled glass floors.

The site continues to develop with an environmental and sustainable focus and aims to install solar panels, improve rainwater harvesting systems and further develop a wildlife garden to improve biodiversity and enhance learning opportunities for adults with learning disabilities, making them active green citizens.

Flower Pod Southwell connects people with learning disabilities, local organisations, community, and corporate volunteers to experience the benefits of therapeutic, horticultural activities. Flower Pod continues to find innovative ways to use the site, such as making natural petal confetti made from flowers that are past their best and upcycled flowers collected from supermarkets, as well as running forums to introduce people to the wider sustainability agenda.

Collaboration with NTU has been maintained and there are joint projects underway. For example, as part of Brackenhurst horticultural students' curriculum, NTU students grow commercial quality plants for Flower Pod to use in hanging baskets which are sold to generate a small income for the charity. In 2023, the Flower Pod commissioned the renovation of an old pond to <u>create a user-friendly wildlife resource area</u>. The works included the creation of a new pond and a bog garden, and the construction of new paths that are accessible for people with limited mobility or wheelchairs.

The future of Flower Pod will focus on areas which increase client engagement. Growth and sale of flowers will be targeted more at planned activities, such as involvement with local events, where

people with learning disabilities can play a more active role in the community and customers' corporate and social responsibility agendas can be met.

7.3. Hedgehog Friendly Campus (HFC)

Since 2020, HFC has provided an exciting opportunity to engage with students and staff on actions to make the campus more Hedgehog-friendly. Brackenhurst is currently a Gold Accredited campus and is working towards Platinum Award in 2024. As well as awareness stickers being added to all estate strimmers and mowers (see **Section 3.2**), the project has seen NTU support the British Hedgehog Preservation Society's Hedgehog Awareness Week, undertake hazard audits, survey for hedgehog presence, and engage with students and staff and the <u>wider community</u> through webinars, visits to schools and social media campaigns.

During 2022, while working towards Gold Accreditation, our Landscaping Services team attended Hedgehog Friendly Grounds training to increase awareness of hedgehog-friendly landscaping techniques.

7.4. Community Access

Access to the campus grounds and facilities is available to school groups and community groups on arrangement. Organised activities include pond dipping, nature walks and visiting Home Farm. Guided walks allow the wider community to visit the gardens and grounds to learn about the history as well as the rich flora and fauna.

In addition to the public footpaths through the campus, the university also provides public access along permissive routes, which allows public access to features such as the Sheepwalk's Pond and the wildlife hide. The campus grounds provide a variety of environments such as wetland, woodland, and parkland, which the community are welcome to enjoy. The University has produced a leaflet setting out a series of nature walks across the estate, each of which is focussed on a certain species, habitat, or environment, which is available online. The leaflet has also been distributed to Southwell Library, Southwell Tourist Information Centre, and Southwell Leisure Centre.

Interpretation boards are provided along the public and permissive footpaths providing information concerning what nature they can look out for and the ongoing management practices. Gardens of the Main Hall, along with the rest of the site, are accessible to the public as well as regularly hosting planned visits. The library is open for public access during office hours.

7.5. Conferences, Catering and Room Hire

Indoor weddings are available at weekends all year round in the Lyth building and include exclusive use of the Reception, Lecture Theatre and Refectory. Outdoor weddings can be held

on the Main Hall lawn at weekends from June to September in an outdoor structure of the client's choosing, including a tipi, marquee, and sailcloth tent. Outdoor weddings are serviced by an external catering company and bar.

Access to the mirror pool and landscaped gardens around the Lyth building, the Main Hall lawn, the Walled Garden, and the Dew Pond are all included in the wedding packages.

On-site catering can deliver hospitality for a range of events. In June, a marquee on the main lawn hosts the popular Brackenhurst Ball for students, whilst welcome week activities are hosted on the main lawn in September.

7.6. Sports Facilities

NTU Sport offers a comprehensive, inclusive, and high-quality programme to students, staff, and the local community. The facilities attract individuals ranging from complete beginners to international performers.

A wide variety of Brackenhurst-specific sports clubs are offered to students from Cheerleading to Hockey, and Netball to Rugby Union.

The campus hosts a football pitch, a cricket square and nets which is home to the local Southwell Cricket Club, and an Equestrian Centre where you can take riding lessons or compete in dressage and show-jumping events.

As members of the NTU community, staff and students can take advantage of NTU's partnership with Southwell Leisure Centre which provides big discounts on the standard centre rates. This includes unlimited access to a 50-station gym suite (including your very own induction, instructor, and personalised fitness programme), all the centre's exercise classes (including Tai Chi, Aqua Aerobics, Pulse Circuit, Legs, Pilates, Yoga, Body Bar, Step Aerobics, and Kwik Circuit) a swimming pool and sauna, and squash and badminton courts.

The Equestrian Centre holds a variety of events throughout the year, including unaffiliated and affiliated dressage competitions and unaffiliated show jumping. The Equestrian Centre can also be hired out by the public. The extensive indoor and outdoor spaces are approved by the British Horse Society (BHS) for training and livery establishment and hold a full local authority riding school licence. With growing demand from external and internal clubs and users, NTU Sport is constantly striving to keep ahead of the game with its facilities and presence to accommodate not only the increasing standard of sport among the students but also the rising level of participation in the community and local area.



Section 8: Marketing and Communication

8. Marketing and Communication

8.1. Marketing and Promotion

Increasing efforts are underway to make the local community aware of the facilities at Brackenhurst Campus, which are available for them to use and enjoy. The NTU ARES website includes extensive features on the campus, including information on the facilities available to the public. The news section of the main website and NTU's Sustainability webpages give information on current and future events.

The 27 information boards across the estate are a useful resource for information once people are on the site; there are aspirations led by the Brackenhurst Land User Group for more information boards to be installed. The original boards have been reviewed and are to be updated and replaced as part of an NTU-wide signage project underway from 2024.

In addition to internal advertising through 'Must-know Monthly 'emails and the MyNTU Newsroom, press releases are circulated for all major events, open days, and LEAF events. These raise public awareness and participation in public events at Brackenhurst.

Short films about the University, Brackenhurst Campus and topics relevant to the school (such as growing your own food) can be viewed via the NTU's main website or the ARES website.

NTU's Sustainability webpages have a dedicated page to Wildlife and Green Spaces, with sections on Brackenhurst, Clifton and City Campuses which feature landscape information, ongoing projects, and key areas of conservation across the university. The webpage also includes a copy of this report for staff, students, and members of the public to view and learn more about the opportunities the campus offers.

8.2. Communication Channels

Internal communications within NTU include the MyNTU dashboard which displays daily updates to all members of staff with forthcoming events and news within the University. For 2021, a new student dashboard was launched, which provides updates on what has been happening on all campuses and what is coming up. NTU also has a University Calendar for students and staff to refer to via the website.

The University produces the annual printed newsletter for supporters of 'Shaping Futures.' This newsletter keeps alumni and other supporters in touch with what's going on at the university. The 2020 edition included features on work taking place at ARES to seek solutions to the global climate crisis and community fundraising highlights across NTU. The Estates Department have a newsletter which provides an opportunity to communicate to staff about the carbon-saving and green initiatives that have taken place or that are planned.

The Green Flag status of the campus is used and shared through events such as Sustainability Awareness sessions, Sustainability in Practice tours and Welcome Week. Green Flag status is also promoted through the NTU Sustainability webpages and social media channels.

The Sustainability Team have strong relations with both the staff and student communication teams and works closely to ensure key messages and opportunities for involvement are advertised for all. The team have their own social media accounts and there are many other accounts for different areas of NTU that can help spread the word about news or events.

The NTU Sustainability Team's X (Twitter) account has over 2,600 followers with tweets communicating to both students and staff. The account is used multiple times a week to keep followers up to date with all the activities the team participate in from tree planting to workshops as well as retweeting important environmental news pieces.

Due to high student demand, Facebook and Instagram pages for the Sustainability Team were launched in the winter of 2016/17. The Facebook page now has over around 1000 followers, and the Instagram account has over 1,200 followers as of January 2023.

NTU Landscape Services' X (Twitter) account has over 800 followers with regular updates about their work to make the campus an attractive space for wildlife and people. NTU Estates has an Instagram account used as an image portfolio and dedicated webpages to inform staff and students about any disruptions to users as well as updates on current campus developments.

The establishment of the Brackenhurst Land User Group aims to balance the needs of different stakeholders at Brackenhurst. The group currently meets quarterly and includes the Brackenhurst farm manager, academics, the Brackenhurst Head of Operations and members of the Sustainability and Landscape Services Teams.

8.3. Educational and Interpretational Information

As a Higher Education Institution, a wide variety of educational activities takes place across campus for both NTU students and community groups.

As described previously, interpretation boards around the estate help users find their way and provide information about the land and local wildlife.



Section 9: Management

9. Management

9.1. Management Structure

This Landscape Management Plan (LMP) is reviewed annually by the Sustainability Team, ARES academics, the Farm Manager, and the Landscapes Services Manager.

The Director of Estates is supported by other Senior Management in the management and implementation of the University's environmental policy.

As part of this management, NTU's Sustainability Team help ensure that up-to-date information on best practices regarding environmental issues is disseminated throughout the University. The Sustainability Team has formed strong working relationships with different stakeholders across the University for the incorporation of sustainable principles.

The buildings and gardens at Brackenhurst Campus are managed by teams within NTU's Estates Department. ARES and the Farm Manager manage the farmland. Communication between the various stakeholders at Brackenhurst Campus has significantly improved in recent years with the introduction of regular Land User Group meetings. These meetings are chaired by the ARES Head of Operations and attended by academics, the farm manager, the senior field technician (who supports the Conservation Society) and representatives from Landscape Services and the Sustainability Team.

9.2. Project Funding

Currently, NTU is undertaking major redevelopment across its campuses. Working capital for site work is used to deliver these projects. With each new building project, the University has sought to deliver new associated landscape areas which are now supported by the Landscape Management Plans.

The Landscape Services Team have an annual budget for all three campuses of around £500k, including staff costs. A breakdown of the spending on larger projects is provided in the Implementation Plan in **Appendix B**.

Fundraising is conducted by staff and students for restoration projects such as the Rose Garden, while Brackenhurst Campus 'Old Students' Association (BOSA) have also helped to raise funds. This method can result in long lead-in times. There is potential for the management team to take advantage of other funding opportunities, such as the Heritage Lottery Fund and English Heritage: Grants for Historic Buildings, Monuments and Designed Landscapes. These funding options continue to be explored.

9.3. Management Priorities

The current short-term aims are;

- Create new ponds across the estate 2022-2024
- Building upon the excellent working relationship with the local community, to enhance the landscaped areas ongoing.
- Increased creation of invertebrate, bird, bat and, small mammal habitats across the estate as part of the campus development ongoing.
- Wider landscaping projects to improve the student experience.

The longer-term aims are (timelines subject to funding):

- Restoration and replacement of gates to the Walled Garden including glasshouses Mart House and bothies.
- Restoration of Rose Garden pergola and Boat House.
- Restoration of Gatehouse walls and railings.
- Development of links with local community groups, such as Young Farmers and the Ramblers Association.

The Implementation Plan allows the management team to assess the highest priorities and develop a programme that responds to these. See **Appendix B.**

Appendices

Appendix A – Sample Maintenance Plan

Examples of Landscape Maintenance Schedules

Shrub Beds:

- Shrub beds will be managed to maintain a healthy stock of plants. The edges of the beds
 will be neatly defined by appropriate means. Beds shall be weed-free and mulched
 annually to suppress weed growth and retain moisture content within the soil. However,
 should the prevailing weather conditions dictate these beds shall be irrigated during the
 dry spells to remove undue plant stress and the potential for die-back.
- Pruning will be conducted on shrubs that require it according to species to remove the dead and damaged branches, retain the natural shape and encourage good flowering to improve health and vigour.
- Where die-back of plant material has been identified new plants will be planted as soon as possible, using species that maintain the character and continuity of the shrub bed. Replacement planting will use the species with a form and flowering habit that is appropriate for that plant's position in the bed as well as the context of the nearby environment.

Winter sports pitches (Football/Rugby):

- Grass in these areas will be maintained to a height governed by the respective playing needs at the time of play and to provide a suitable and safe playing surface throughout the season. Areas will be mown weekly throughout the growing season. In addition, other tractor-mounted tasks will be undertaken to provide a true, safe, and free-draining surface. These tasks will include monthly aeration, rolling and chain harrowing throughout the playing season. User needs determines the frequency and timing of such tasks as well as maintaining the quality and integrity of the playing surface. Throughout the year regular applications of fertilisers and herbicides will be considered on their merit and need under the prevailing weather/ground conditions.
- Throughout the playing season and as determined by fixture arrangement the pitches will be fully marked out per the Association Rules and Regulations. Respective posts and crossbars will be safely erected at the start of each playing season and regularly checked before and after each fixture including the setup and removal of nets (football). At the end of each season, this equipment will be safely dismantled, repaired, and stored until it is next required.

- End-of-season renovations will include topdressing, over-seeding, and re-establishing levels to make it safe and maintain the integrity/quality of the playing surface.
- Preparation and maintenance tasks are conducted during the academic year (Sept-June) when demand is at its greatest with the end of the season works taking place as demand eases. We have a working partnership with Brackenhurst CC to ensure their fixtures are fulfilled during the summer months.

Landscape Machinery and associated equipment – maintenance:

- All landscape machinery and associated equipment are subject to regularly prescribed checks to ascertain service and repair needs under the Provision and Use of Work Equipment Regulations (PUWER) 1998 including six monthly safety inspections of Arboriculture equipment which falls under Lifting Operations and Lifting Equipment Regulations (LOLER) 1998.
- All works, repairs and inspections are documented and maintained to file for access, monitor and review where requested.

Arboriculture:

- During the Autumn/Winter period or when safety issues prevail. Care is taken to avoid such work during the nesting season and work action accordingly. Works are driven by a 3-yearly survey, by external consultants, which prioritises works according to either tree health/failure as well as the potential risk to the public or property. Successional planting is factored into replanting where trees could or have been lost.
- All tree stock, within the remit of NTU, is reviewed on a 3-yearly cycle to determine workload priorities and asses the health, well-being and vigour of both specimens and groups of trees.
- Regular inspections of dead, dying and dangerous trees are undertaken throughout the year where high winds and disease may present a threat to NTU trees. Works are actioned accordingly to maintain the integrity of specimens affected and to remove the potential risk to people & property, especially trees located near well-used footpaths and roads.
- Safe work practices are adopted in relation to working at height within trees. Operatives undertaking work are IPAF certified to use mobile elevated work platforms & NPTC compliant up to units cs38/39 as well as MEWP trained.

Turf Maintenance:

Defined as either high or low amenity areas and subject to respective maintenance regimes. This may include:

- Mowing, throughout the growing season to the respective height (collected or noncollected);
- Use of a variety of cylinder, flail, rotary mowers and strimmers during the growing season;
- Application of granular or liquid fertilisers to improve turf health and vigour;
- Application of granular or liquid chemicals for the control of weeds, pests & diseases;
- Application of water &/or wetting agents during periods of drought;
- Aeration & scarification to improve drainage, quality, integrity & appearance of grassed areas;
- Reinstatement of new, damaged, or worn areas by turf or seed mixes;
- Introduction of topdressings to improve drainage and levels;
- Removal of litter & debris from surfaces.

Landscape (Biodiversity):

All landscape tasks give due consideration to the impact of our activities on all flora & fauna such as:

- Green waste recycling all landscape material composted and chipped for reuse across campus to aid weed suppression and combat drought.
- Introducing a palette of colour-rich wildflower areas to improve biodiversity.
- Legal compliance to minimise the impact on wildlife such as nesting birds & Great Crested Newts
- The utilisation of Integrated Pest Management (IPM) techniques reduces the reliance on chemicals.
- Introducing wildlife habitats such as bird boxes & log piles as well as shelters for a wide range of other invertebrates & insects
- Engaging with key partners & stakeholders, through volunteering projects, to improve biodiversity.
- Actively encourage students to use the landscape areas for research and coursework and how to add value to biodiversity through study.

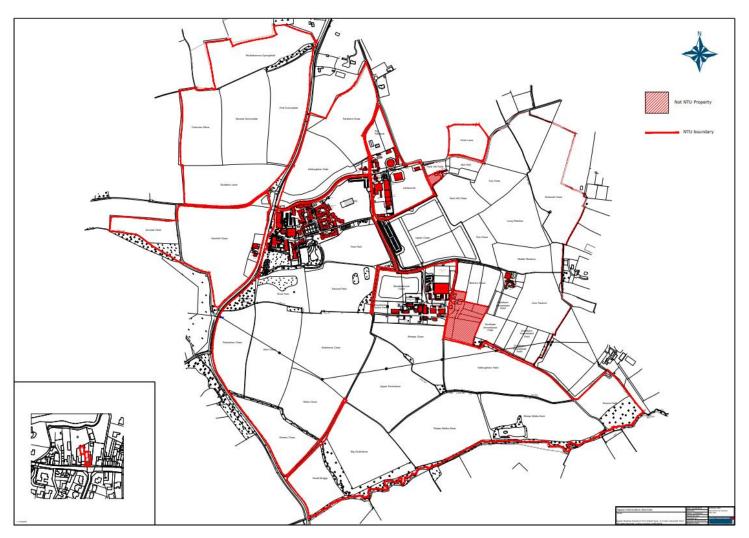
Internal Plant:

Service and maintenance to over 200 planters, throughout the year, across key building forums on all three campuses. Includes watering, feeding, pruning, and cleaning down of containers.

Appendix B – Implementation Plan

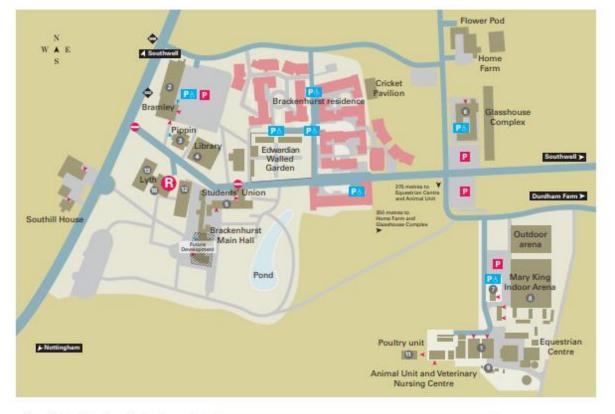
	Action	Target	Budge t	Timescale	Owner	Status
Brackenhurst Campus	Wider landscaping projects including soft landscaping along Hicking Lane and re- landscaping of Bramley car park curtilage	To improve the landscaping and student experience at frequently used points around campus	TBC	Sept 2022	Alan Horgan	Creation of feature planting, seating and new paths for rich biodiversity and improved facilities as part of the new Lyth and accommodatio n building.
	Refurbish/re- instate the Rose Pergola and Lodge Gates and Walled Garden Gates.	Improve heritage conservation	Approx. 200k across 5 years, funding sources not secured	TBC considering current development	TBC	Source funding for restoring the Walled Garden and Rose Pergolas is an ongoing venture.
	Mitigation tree planting considering planned campus redevelopment	Ensure trees lost to development are replaced	TBC	Ongoing	Alan Horgan	Depending on planned campus regeneration, Brackenhurst Lane bund will be wooded by 2020
	Restoration of Great Crested Newt ponds under Natural England Licence.	To meet the legal requirements of the Natural England licence to improve the quality of pond habitat for wildlife.	Circa 30K	January 2024	Jemma Maguire	Final 2 pond enhancement works to be undertaken in December 2023-January 2024. All other required works are complete.
	Update interpretation boards	To improve the information available to Brackenhurst campus users on past and present land use.	TBC	From January 2024	Led by Brackenhurs t land user forum as part of a wider NTU signage project.	In progress as part of a wider NTU estate signage project.





Appendix D – Brackenhurst Campus Map of Access





Animal Unit and Veterinary Nursing Centre	
Brackenhurst Farm House	9
Brackenhurst Schools Unit	6
Bramley	2
Employability Centre	2
Equine Office and Classroom	7
Library	4
Lyth and Main Reception	
Lyth - Teaching Block	12
Mary King Indoor Arena	
Orangery Café	
Pippin Cottage	3
Poultry Unit	
Refectory	13
Students' Union	
Student Support enquiries	10
Workshops	6
Security	(3)





Travelling to Brackenhurst campus

NTU Nottingham Trent University

How to get here

By car

Brackenhurst can be reached from the M1 by leaving at any of the Nottingham exits (Junctions 24, 25 or 26), travelling through Nottingham city centre, then following the A612 towards Southwell.

From the A1, exit at Newark and follow signs to Southwell. Brackenhurst is on the A612 about one mile beyond Southwell.

By bus

Brackenhurst is served by the Nottingham City Transport (NCT)'s Pathfinder 26 bus service, which links Nottingham city centre to Southwell. Catch the service on King Street in Nottingham or Norwood Gardens in Southwell.

Tel: +44 (0)115 950 60 70 (NCT) www.nctx.co.uk

By rail

Use Nottingham station and catch the NCT Pathfinder 26 bus service from King Street (about 10 minutes' walk).

Tel: +44 (0)3457 484950 (National Rail Enquiries) www.nationalrail.co.uk





While the University has made every effort to ensure the accuracy of information contained in this leaflet, it reserves the right to make any appropriate modifications without prior notice.

