

# THE STANLEY SMITH (UK) HORTICULTURAL TRUST

## Application Summary Sheet (please do not extent beyond one page)

### Contact details

**Name:** Contact details withheld to comply with the Data Protection Act

**Organisation:** Winterbourne House & Garden, University of Birmingham

**E-mail**

**Address:**

**Telephone number:**

### About your project

*Please provide a description of the project which you are applying for a grant for. Use the box below to provide a short high level synopsis and continue on separate sheets with a wider description as necessary.*

This development will improve an area of the garden that has suffered neglect due to waterlogged conditions. We are going to create a wetland meadow to harness the conditions and improve the biodiversity. A large willow and long border have already been removed; opening up the views to the surrounding treescape. Some tolerant tree species remain for autumn colour and water retention. We will begin repopulating this area with plugs of native and non-native species in informal drifts near the path for immediate impact. Further outlying pockets of planting through the lawn area will indicate what the space will look like in the following years.

*Please identify the category of the Trust's objectives which you believe your project meets.*

To promote the creation, development, preservation and maintenance of gardens.

To promote the conservation of the physical and natural environment by promoting biological diversity.

*Please describe personnel who will be participating in the project (if appropriate).*

The project will be led by Daniel Cartwright (head gardener) and overseen by Lee Hale (Head of Winterbourne). Work to be completed by the Winterbourne garden team and garden volunteers.

*Please describe your long-term plans for the future of the project once the grant has been used (if applicable).*

The funding would provide the plugs and bulbs for the initial phase of planting. We intend to increase the amount of wildflowers incrementally each year by growing our own plugs. An autumn sowing will ensure a supply of plugs for the following spring. This is much more cost effective but obviously more time consuming.

There will be some shrub removal and bulb planting in the boundary borders in an attempt to blend the meadow into its surroundings. We would like to make the space fully accessible to our visitors by extending the dead end path into a circular route and installing interpretation boards to highlight the importance of wetland meadows.

### Financial Information

*Please attach all relevant financial information such as expected other income and proposed expenditure.*

**Sum applied for: £3,500**

*Please send your application (including this cover sheet and any supporting documents) in electronic form, hard copy or both to the following addresses:*

**Postal address (hard copies):** Dr David Rae, Director, Stanley Smith (UK) Horticultural Trust, Royal Botanic Garden Edinburgh, 20a Inverleith Row, Edinburgh EH3 5LR

**E-mail address (electronic copies):** d.rae@rbge.org.uk

# **The Wetland Meadow at Winterbourne**

## **Winterbourne House and Garden – An Overview**

Winterbourne's grade-II listed 7-acre garden, situated just 2 miles from Birmingham's bustling city centre, has a rich and varied history. It was designed on Arts and Crafts principles in 1904 by the Nettlefold family, who were heavily influenced by the ideas of Gertrude Jekyll.

In the 1930s the garden was further developed by the Nicolson family. During its first 40 years, while providing pleasure for its private owners, the garden also served as recreation for wounded soldiers in the First World War.

In the early years, a 'hobby farm' housed pigs, cattle, horses and poultry, and vegetables and fruit were cultivated in the walled garden. The public were welcomed into the garden for specific occasions such as works outings and political gatherings.

The house and garden were bequeathed to the University of Birmingham in the 1940s, with instructions that the garden should be preserved. Henceforth, the garden became a research facility, and is now open to the public as a heritage attraction.

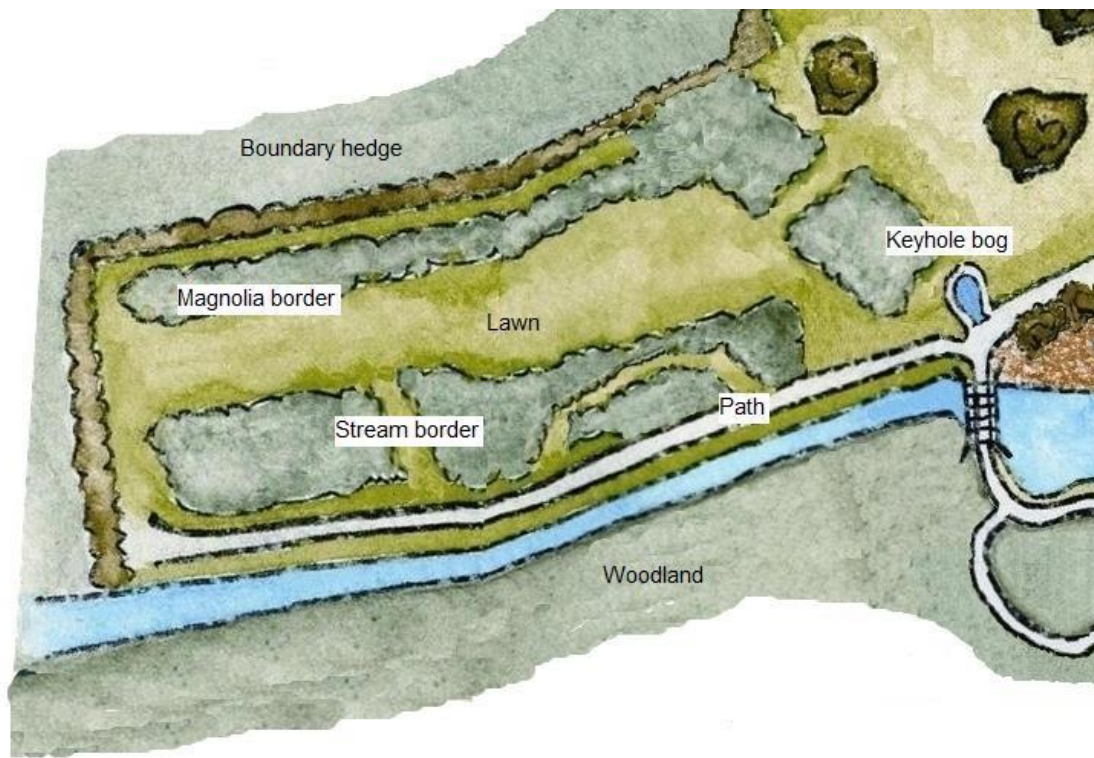
Today, Winterbourne House and Garden is an Accredited Museum, an RHS Partner Garden, and home to three National Plant Collections. Visitors enjoy access to a range of display glasshouses, including a tropical Orchid House and Alpine House, colour themed herbaceous borders, and 5-sided Edwardian Walled Garden.

For further information, please visit [www.winterbourne.org.uk](http://www.winterbourne.org.uk).

## **The Wetland Meadow – An Introduction**

'The Stream Lawn' is located at the furthest point in the garden from the house. The level of the land falls considerably over the site, to this area, culminating in the pooling of surface water during heavy downpours. Unfortunately, this isn't an irregular occurrence. In the immediate surroundings there are natural springs, a stream and several neighbouring AstroTurf pitches that collectively impact upon this area. It is worth noting that the latter is a relatively recent development - belonging to the neighbouring school – and sits several feet above the Stream Lawn. The steep drop in level and inadequate drainage have intensified the historical issues we face in this area.





Overview of the area

These longstanding issues with drainage have always influenced the management of the space. In the 1980s, a Beth Chatto inspired, ornamental border was installed. Using inspiration from her book 'The Damp Garden', a 40m long stretch was cultivated and planted with damp loving plants such as *Darmera*, *Filipendula*, *Rodgersia*, *Iris*, *Hosta* and *Astilbe*. In addition to the planting, there were small areas of open water which were crossed via small bridges, and a weeping willow provided height and interest throughout the year. The border was successful in drawing visitors down to this part of the garden and was regularly maintained by staff and volunteers.



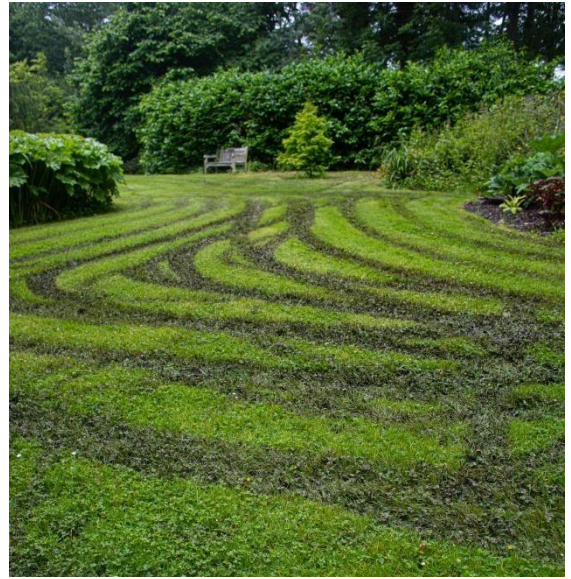


## View from the lawn edge looking over the border and stream towards the woodland

The surrounding space was made up of an informal lawn, a boundary border of magnolias, a path, streambank and stream. The lawn was mossy and riddled with creeping buttercups, and although it was damp underfoot, it was possible to maintain using the ride-on lawn mower (on a high cut).

However, several years ago, the waterlogged conditions continued to deteriorate further and only those that wore wellies dared to venture out beyond the safety of the gravel path, and those that did often ended up churning up muddy tracks wherever they'd been. As a result horticultural standards began to suffer and the maintenance regime in this area became entirely weather dependant. Several hot, dry days were needed before staff could even consider trying to mow the wet lawn, and this precarious situation meant that on a few occasions we literally got stuck in the mud!

Infrequent mowing meant that the creeping buttercups and other weed species began to overwhelm the lawn. However, the vast burst of yellow flowers each May actually proved very popular with visitors, who were able to see it from the safety of the path. This positive feedback helped spur a change in direction and in turn changed the maintenance regime. The lawn has subsequently been left to grow untouched throughout the summer, excepting a couple of paths which are mown for those that wish to explore, and then in the autumn we mow or strim it down.



**Muddy remnants from mowing**

Our intention now is to extend the existing lawn throughout the whole area and cultivate a diverse wetland meadow. By accepting the conditions that we have and selecting species that can thrive, we think we can create a really unique space that improves the visitor experience as well as increasing the biodiversity. The damp border, the pools, bridges and willow will be removed to create an expansive stretch of uninterrupted meadow that meets the path edge. The views onto the surrounding woodland and rock garden will be opened up, making the space feel larger and more inclusive.

By opening up vistas and bringing the surrounding treescape into focus, we hope to better highlight our existing *Metasequoia* and *Taxodium* trees, and also nearby groups of *Liquidambar* and *Acer*. They complement each other really well in autumn and by extending this vista to include the specimens beyond the Stream Lawn itself, we feel the autumn display will be more dramatic than ever.



**Buttercups flourishing in the unkempt grass**

Although Arts and Crafts gardens typically have a strong structure softened by bountiful planting, at Winterbourne, the further away you get from the house, the more the space relaxes and becomes wilder. Even though the borders are still managed, surrounded by woodland, they feel a lot closer to nature than the themed 'rooms' nearest the house. A managed meadow would complement the natural look of the surrounding space very well.

Winterbourne already has a wide range of ornamental planting with both native and non-native species. However, the introduction of new wildflower species to the meadow would increase the nectar supply to our native pollinators and support those species whose numbers are dwindling at an alarming rate. Between 1980 and 2013 it is estimated there has been a loss of 33% of wild pollinator species (for example, bees and hoverflies). The decline in insect populations are closely linked to loss of habitat and changes in land management practices with around 97% of all of the UK's meadows disappearing since the 1930's. Whilst we can't replace the loss of 7.5 million acres of meadow here at Winterbourne, we can create a space that engages with our visitors and helps to promote re-wilding of our green spaces.

The perils of climate change have brought the environment to the attention of the masses; millions of people are living with a direct risk of flooding in the UK. Many of those are struggling with poor drainage in their own gardens and green



spaces, and by making space for plants, some water capture will occur, which will in turn slow the flow of surface water and therefore help to ease flooding. Although not everyone will be able to grow a large-scale wetland meadow of their own, more and more are leaving wild or semi-wild patches in their gardens. Our wetland meadow will raise awareness of this type of habitat and offer inspiration to those with damp or water-logged areas and show them how beneficial it can be to give space to flowering wildflowers over more traditional ornamental species.

### **The Wetland Meadow – Implementation**

Work began in late-summer 2020 with the removal of the now defunct Beth Chatto inspired border. The aim was to complete the clearance work before the end of autumn, allowing time for the soil to settle before re-seeding in spring. Garden staff and volunteers worked hard to remove the established planting which was made extremely difficult by the water-logged conditions. Fortunately, the garden tractor and front loading bucket were on hand to help clear the areas closest to the path.



**Clearing the Stream Border  
with the tractor**

With the perennials and structures such as small bridges removed, the weeping willow was then also felled to help prevent the casting of unnecessary shade that would have had a detrimental impact upon the success of the wildflowers that require full sun to grow. However, many other trees with smaller, or less dense, canopies will remain in the area and they will continue to help slow the surface water run-off.



**A before and after of the willow removal – extending the  
view up to the *Liquidambar* and Japanese teahouse**



Once the clearance work had been completed, 40 tonnes of low quality top soil were bought in order to bring the soil level back up to match the level of the existing lawn. The tractor and trailer were used to transport and dump the soil on the border, to then be barrowed and spread out by hand.



**Visible surface water pooling**

**Barrowing top soil onto the border**



Access to the site is limited to one gravel path, and during the course of clearing and levelling, this was very quickly consumed by mud. The garden team scraped the path back down to the gravel and over the following few weeks the rain washed the residual soil away to leave a relatively clean surface. By roping off the access path, we've been able to keep our visitors safe and allow them to see what's happening - we've had plenty of interest so far!



**How the space looks now – a clear path, with settled soil ready for planting**



Funding from the Stanley Smith Horticultural Trust will allow us to purchase a large quantity of wildflower plugs for planting in spring 2021. In the long term, the meadow will fill out and naturalise, but to create an appealing display for this season, we need greater control over the planting. Using plug plants initially, rather than seed, will allow us to plant to a 'plan' and are more likely to thrive as they have established root systems. In particular, seed is less likely to make good contact with the soil in this area – especially where the existing lawn is established - when the water level is high, and more likely to wash away from where they were sown.



**Naturalised clumps of *Fritillaria meleagris***

We would also look to spend some of the grant on bulbs that would be planted in the autumn. There are established patches of *Fritillaria meleagris* already along the neighbouring stream bank, and we now intend to replicate this on the lawn side, for better symmetry and balance.

We aim to draw our visitors down the path, so in the first phase, we will organise the plants in informal clumps that loosely zig zag the whole length (approx. 60m). Smaller patches will 'bleed' out into the lawn to give an idea of what a full meadow will look like in the future. The wildflower species that we have selected have been chosen because of their ability to thrive in our wetland conditions and flower at different times, ensuring more than one period of interest. We have chosen: *Cardamine pratensis*, *Lychnis flos-cuculi*, *Primula vulgaris*, *Primula veris* and *Fritillaria meleagris* for spring colour.



*Cardamine pratensis*  
Cuckoo flower



*Lychnis flos-cuculi*  
Ragged robin



*Primula vulgaris*  
Primrose



*Primula veris*  
Cowslip



*Fritillaria meleagris*  
Snakes head fritillary

And *Succisa pratensis*, *Stachys palustris* and *Lythrum salicaria* for summer colour.



*Succisa pratensis*  
Devil's bit scabious



*Stachys palustris*  
Marsh woundwort



*Lythrum salicaria*  
Purple loosestrife

Once planted, we'll weed out any unwanted invasive species, like docks and nettles to prevent them out-competing the plugs. Lifting the crowns of the surrounding trees, will allow the wildflowers to spread further in the increased light levels. In September, the wildflower seed will be ripe and ready for us to disperse. By strimming once a year, we can keep the grass growth in check but also allow the wildflower seedbank to build up.

### **The Wetland Meadow – In the Future**

By spring 2022, we will have raised our own wildflower plugs from seed and will be planting those to fill out the open spaces, which will also accompany another batch of bulb planting. The year old patches will be thinned if they're congested and those plants will be transplanted to other under-planted areas. It may be that some species did not successfully survive their first year, so we may have to rethink those species and try alternatives as we gain more experience in meadow gardening.

Once the 'base palette' of plants has settled, we will look to increase the biodiversity further by introducing native orchids like *Dactylorhiza fuchsii* which are already present in small numbers in other parts of the garden.

Beyond 2022, we intend to work on further unifying the meadow with the surrounding areas. The Magnolia border that lies between the meadow and the school boundary may require some shrub removal and further under-planting with bulbs. And the nearby Key Hole Bog could be used to showcase our collection of *Sarracenia* hybrids, which could lead nicely into our wetland meadow.



*Dactylorhiza fuchsii*  
Common spotted orchid

While the meadow establishes, footfall to it, is likely to increase. This may overwhelm the singular accessible path; it would be prudent for us to provide better accessibility, for all, by extending the hard surface path beyond the existing dead end and throughout the meadow to form a circular walk. This will help minimise congestion at peak times, create better flow through the space and improve the visitor experience as they will be able to get close up to the plants much more than they were safely able to do so before.

### **Project Budget**

Wildflower plugs	£2,500
Bulbs	£1,000
Path repair including steel edge, sub-base and top dressing	£5,000
Total	£8,500
Amount applied for:	£3,500



Contribution from Winterbourne's Core Budget:

£5,000

In addition to the above there will be £1,400 worth of contributions in kind, comprising curatorial time, planting and structural work, project management and volunteer time.

### **Thank you**

The Stanley Smith (UK) Horticultural Trust has previously been a generous supporter of Winterbourne House and Garden, enabling significant redevelopment in the garden itself. This support is gratefully acknowledged.