

# CHERWELL SCHOOL ECOLOGY HUB BRIEFING NOTE

(Our Response to 'Nature Positive 2030' and the Department for Education Sustainability Strategy)





# **1 INTRODUCTION**

The Cherwell School is a successful<sup>1</sup> state funded secondary school with academy status located no the Marston Ferry Road in Oxford. With well over 2000 pupils, it provides the educational needs of the north area of the city and is a school centred teacher training provider. The current school was built in 1963 as a secondary modern school, later becoming the main comprehensive school for North Oxford and was granted academy status in 2012 as part of The River Learning Trust (RLT) which comprises 28 primary and secondary schools in the city and across Oxfordshire.

The school's parent community with support from the Senior Leadership Team, has established a professional fundraising organisation – The Friends of Cherwell School<sup>2</sup> (FoC) - which provides ongoing financial and professional support to enhance the learning opportunities provided by the school along with infrastructure improvements.

In response to the Nature Positive 2030 report [<sup>1</sup>] and the DfE's Sustainability Strategy which includes the National Education Nature Park (an initiative to encourage schools to improve biodiversity on their school site), and a new GCSE in Natural History, The Cherwell School, supported by the FoC, are establishing an Ecology Learning Facility on the school's south site. The facility will comprise an Ecology Hub and Ecology Garden and will provide a central sustainability / ecology learning centre for the school, the RLT, other local schools and the Oxford community. The focus is on learning about the natural world, growing healthy food in collaboration with nature, good human nutrition and mental health and wellbeing.

This facility is part of the school's wider ten year plan to significantly boost the biodiversity of our sites and develop educational opportunities for students and colleagues in ecology and sustainability. We are undertaking this work to play our part in local and national efforts to tackle the current serious biodiversity crisis. In doing we aim to;

- Build resources for, and innovate new high quality education about biodiversity and nature, raising awareness of the roles both staff and students have in restoring and protecting it;
- Connect students to nature and help them to value it through our site;
- Support student and staff wellbeing through that connectedness and nature rich site.

# 2 THE CHERWELL ECOLOGY HUB VISION

## 2.1 Who Would Benefit?

- Students from The Cherwell School, neighbouring schools and the local community, who would improve their wellbeing and sense of self esteem, through gaining skills and knowledge that will support their own health and well-being, and knowledge that will be essential in the future green economy.
- Oxfordshire Teacher Training and Oxfordshire Teaching School Alliance, who will have an ideal location and compact space for some time efficient learning for its trainees. Topics can include biology and geography, nature education and the GCSE in Natural History, how to take students outside safely etc.
- The teachers who learn on the site, and benefit from some time in nature. Teachers carry a responsibility for preparing students for a rapidly changing world in which managing mental

<sup>&</sup>lt;sup>1</sup> Recently awarded Ofsead 'Outstanding' status

<sup>&</sup>lt;sup>2</sup> Registered Charity 1183779



health and wellbeing, and understanding the world around them will be critical, and who themselves are facing significant wellbeing challenges.

- Community volunteers who will have the opportunity to be training to come and work with students and teachers on the ecology garden.
- Community groups who may access the site through activities provided. The accessibility of the site and the proximity of the building and the garden to the car park make it ideal for disadvantaged groups to have an experience in nature.
- Member of the local community who will benefit from an environmentally aware and responsible community of young people in its midst, and the wider society who will benefit from the knowledge, empathy, and drive that this project can instill in the students who participate in the learning provided.
- Researchers who are interested in the way in which a school can use nature for mental health and wellbeing e.g. the Oxford University Department of Psychiatry.

## 2.2 What Will It Look like?

- The garden will have a peaceful area of orchard and meadow that can be used for wellbeing activities. It will have a large pond that can be used for fieldwork and will be separated from the rest of the space with "dead hedges" lengths of stacked branches which make a fantastic wildlife habitat. It will have a separate vegetable growing area for students to learn and grow food, with a covered area of tables and benches, possibly with a field kitchen or fire pit for cooking up produce.
- The adjacent building will house appropriate facilities for school age students to learn and enjoy
  the academic study of nature, and for volunteer groups working with nature through activities
  such as gardening for which practical activities will be undertaken in the ecology garden. These
  will include robust tables / benches on which to work, adequate light for close study and
  drawing, one or more sinks for handwashing (internal and external), and internal and external
  storage for ecological study equipment and gardening equipment.
- The facilities will house a kitchen that facilitates the social aspects of the various groups who will use it.
- On the outside of the building we would like shaded canopies for use for sports day, student lunches, and the ecology classes.
- The building will have water butts on downpipes to capture water for the growing garden, bird boxes on the north side, and plants growing on the walls for habitat.





## 2.3 How are we getting there?

- 1. We have created an active Young Ecologists club of students who have contributed to planning, fundraising, planting, surveying and supervising "bug days" for other students. This club is one of the most popular in school and is starting the academic year with making videos to attach new students, and a moth trapping session to survey the garden.
- 2. We have worked with the school Estates Department and Contractors to adjust grounds management practices in ways that allow hedgerow and meadow plants to flourish which in turn supports birds, insects, and reptiles.
- 3. Through our parent body we have built contacts with, and been supported by, foresters and ecologists from Wytham Woods, the University of Oxford research woodlands, to plant trees and hedges, and survey our site for plants and invertebrates.
- 4. The students, and the Friends of Cherwell have been successful in fundraising for a large pond, and (to be confirmed at time of writing 17/9/24) for vegetable growing raised beds.
- 5. We are nurturing important links between the various departments of the school, with Oxford University, local wildlife and voluntary groups, city council and the National education Nature Park in order for the garden and centre to work as part of larger efforts to recover nature at local and national levels.
- 6. With the Friends of Cherwell we are seeking professional support to help us redesign the old rugby club building to flexibly meet the various future needs of the school including the Ecology Hub.
- 7. Our plan is to build on our existing relationship with local community group, Low Carbon Oxford North, and our active parent body, to recruit and train up local community volunteers to work with the students to help them with ecology learning and growing food. Our hope is that a small group of volunteers will form a long term relationship with the school, look after the garden during the school holidays and perhaps run after school and holiday clubs using the facility.



# 3 ECOLOGY HUB SPECIFICATION AND NEEDS

Figure 1 Ecology Facility



## 3.1 Ecology Garden

This is the current design that we are working to. We need some materials, and some labour. The following details each element and the need.



Figure 2 Ecology Garden

### 3.1.1 The Gate

The gate to the garden is currently on the western end of the southern fence. This leads on to the wettest area of the garden so we would like to move the opening and have a more substantial gate with an arch over it.

#### The need:

- creating a new opening in the existing fence and securing the cut ends
- closing the current opening with new fencing, securing fastened to the posts
- gate posts and struts for the fence posts adjacent to the gate.
- a new more robust gate
- an arch over the gate

### 3.1.2 The Pergola

The pergola would ideally be approx. 10m x 10m x 2.5m high to provide a shaded and semi sheltered area. It will be wood or metal and robust enough for students to be around. It will have plants such as vines and jasmine growing over it. Shade is limited on the school site overall and with hotter summers this will be a valuable asset. We may seek to replicate this elsewhere on the school site for all the students who eat outside. We want to have work benches or tables beneath it, and benches for storage and seating. The ground will be wood chippings.

#### The need

- Materials and construction of a large bespoke robust pergola
- Work tables (e.g. cable rolls) and storage seating benches.



• Wood chippings for the ground.

#### 3.1.3 The Dead Hedge

The dead hedge makes a secure barrier between where students will be working on the growing beds and the orchard (to be kept quiet), and the pond. It will be constructed from vertical hazel branches (hazel rods) which need to be sunk vertically into the ground to form a frame to be filled with dead wood. The dead wood for filling can come from local tree surgeons. It will need packing. The advantage over a live hedge is that it creates additional varied habitat, and is narrower and needs less maintenance.

#### The need

- Hazel rods we can try and source these from local woodland management organisations
- An initial load of dead wood of native species we can try and source these from local tree surgeons or woodlands but we may need transport.

#### 3.1.4 The Pond

The students would like a large pond shaped like a footprint. An appropriate size for the space is approximately L 6m x W 3m. The depth should be around 1m max with shallow sides. The shape can be marked out on the ground and a plan created.

A platform adjacent to the pond, or a bridge over the narrow area of the "foot" will be needed for students to access it for sampling pond life with nets.

The pond needs to be dug with some expertise, but there is plenty of advice available on how to shape it on the Freshwater Habitats charity website, and in YouTube videos by Joel Ashton. When the hole is dug, it needs to be lined with sand, then a think waterproof liner, then subsoil. The deep area needs to be supported with rocks.

Removed top soil can be used in the raised beds. Any excess subsoil can be used to make bunds on site.

The pond does not need any filter or pump.

#### The need

- A digger with some expertise or a willingness to learn
- Sand
- A liner
- Possibly excess subsoil if we don't generate enough in the dig
- Material and construction of a platform or bridge

#### 3.1.5 Raised Beds

We would like between 9 and 12 raised beds of 1m x 2m x 30-40cm for growing vegetables, and some archways between some of them for growing climbing plants over such as tomatoes and peppers.

Raised beds can be bought made of wood or recycled plastic. We favour the recycled plastic ones as we feel they will be long lasting and robust in a well used environment.

They can be filled with sticks and straw at the bottom and filled initially with soil and compost (top soil from the pond excavation). They can be kept filled with compost made on site over time.

The ground between them will be woodchip.

#### The need

Raised beds



- Soil and compost
- Woodchips

#### 3.1.6 Compost bins

We want to be able to make our own compost so we need a bank of ideally three or four bins so that we can fill one while the others rot down. We have a design to make them with old pallets.

### The need

- Pallets to use to construct three or four compost bins
- Help with the construction

### 3.1.7 Greenhouse

We would like a small greenhouse on site to propagate seeds for growing vegetables. This could be a polytunnel or ideally, a Perspex greenhouse.

#### The need

- A small greenhouse with Perspex, not glass, with shelves.
- Help with constructing it.

## 3.2 The building

The Old Rugby Club is an excellent building for using for ecology teaching and activities and for community volunteers who are helping with the garden. It is robust, spacious, has toilets, a kitchen and storage spaces. Some redesign however could make it into a really useful facility for this and other activities for the school. We have ambitions to make this a hub for use by this school, other local schools, for teacher training for ecology and biodiversity, for training community member, and associated activities.

There are a number of existing demands on the building by the school (PE changing rooms, counselling service etc), and it is rented out on an hourly basis to external users, thereby bringing in valuable revenue for the school. We need some design advice about how we could optimise our use of that space so it becomes a really valuable resource for the whole school as well as what we specifically want to do with it.



Ground Floor



## 4 Contact details

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<sup>&</sup>lt;sup>i</sup> Nature Positive 2030, Published by Natural England and the Joint Nature Conservation Council <u>Nature Positive 2030 Summary Report and accompanying Evidence Report</u>.