

# **Hogacre Common Eco- park**

## **Environmental Sustainability Assessment (ESA) Report**

The report consists of three parts:

- *Part 1:* Introduces the concepts and describes the present state.
- *Part 2:* A spread sheet to present the issues and propose actions.
- *Part 3:* An excel spread sheet to keep track of improvements in a quantitative way.

### ***Part 1***

#### **I Introduction and aim of the report**

The aim of this ESA is to analyse the environmental impact of the site and its activities for the following purposes:

- Management: understand the environmental footprint of the site; highlight where improvement is needed; take action.
- Communication: explain and promote the sustainability agenda to the wider community.

The analysis of the impact and a suggested plan of future actions are based on the concept of “circularity” following three basic points:

1. Definition of the present state: analyse and quantify the environmental footprint  
*Output*: detailed analysis of the environmental parameters (see section ESA).
2. Determine actions needed: Given output of 1, propose actions to reduce/minimize environmental footprint; improve status of the site.  
*Output*: detailed plan with list of actions including modifications of individual behaviour, community involvement and institutional collaboration.
3. Analyse results: examine outcome of agreed remedial/improvement actions, check and quantify the results obtained, redefine the present state.

With the definition of a new present state, a new analysis cycle is initiated, aiming at continuously improving the situation by constantly questioning and re-examining the knowledge and achievements of a previous cycle.

The objective of this method is to strive for “zero impact”. Extrapolating from the definition of Sustainable Development (SD)<sup>1</sup>, a human activity can be defined as environmentally sustainable only if at the end of its life-cycle it hasn't produced waste or pollution, and energy and raw materials are reintroduced into the system. This condition is impossible to achieve (see first two principles of thermodynamics), but one should work towards it.

#### **II Description of the site Hogacre Common and its main activities**

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<sup>1</sup> Definition of sustainable development: development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations General Assembly, 1987, p.)

Hogacre is a “*Common Eco Park Community Interest Company (HCEPCIC) that was...set up to manage the land and to work with the local community to bring about the changes needed to develop the Eco Park.*”

In 2011 Corpus Christi College decided to move their sports facilities to another site in Oxford. Encouraged to do something of community benefit with the land, they agreed a lease with a local environmental group (West Oxford Community Renewables, WOCORE). The site is managed by a group of local residents.

The key aims of Hogacre are to:

- Encourage biodiversity
- Support local communities reduce their carbon footprint and to sequester carbon
- Support local production
- Act as a resource for education
- Encourage fun and recreational activities related to the other objectives
- We run other activities aimed at providing an income to ensure the sustainability of the project

On site you will find:

- Former grass tennis court: Oxgrow runs a collective allotment growing vegetables and fruit.
- Hard tennis court: Redeveloped space for activities run by the community. There there is a 6KW wind turbine, generating energy for the national grid and Pavilion.
- Beekeeping: Community beehives with minimal human intervention. The bees get to keep much of the honey.
- Orchard: Community orchard, with a variety of native fruit trees including the the largest collection of heritage apples in Oxfordshire.
- Meadow: Biodiverse wildflower meadow.
- Forest school: Outdoor educational space for local school groups.
- Woodlands and Hazel coppice: Hazel coppice for renewable fuel and woodland craft.

### **III Sustainability approach**

Hogacre Common Eco Park intends to demonstrate the management of land using sustainable principles to show this is a viable way to address the issues listed below.

### **IV Environmental Sustainability Assessment**

Based on the information gathered during a meeting with Hugo Crombie at Hogacre on the 22<sup>nd</sup> June 2020, the assessment has been carried out following and adapting the Global Reporting Initiative (GRI) environment guideline series 300 which consider:

- Materials
- Energy
- Water and effluents

- Biodiversity
- Emission
- Effluents and waste
- Environmental compliance
- Supplier environmental assessment

## **1. Materials**

Land used by the College for sports purposes (cricket, tennis): no baseline was carried out when the use was changed. Managed in a conventional way.

The main material consumption at the site is soil, the basis for the majority of the activities on site. Neither pesticides nor fertilizer are used and soil health is a premium.

## **2. Energy**

Mains electricity. Little or no attention to energy efficiency in the Pavilion. Base line assessment of energy used and waste was carried out by Low Carbon Hub. Some work carried out to improve energy efficiency.

## **3. Water and effluent**

Mains.

Two waterbutts were put in place on the grass tennis court when Oxgrow was established in 2012.

Water collected from the roof is filling two tanks (approx 3000 l). This water is used from the Oxgrow community to water the allotments. Usually by April the tanks have already been emptied and then water from the mains is used.

## **4. Waste**

Waste (from hires, the café and public events) is composted for use around the site, particularly in Oxgrow.

Plastic on site has been generated by the use of: trees guards, for light excluding covers, bag from compost, plant pots. The baler uses a plastic not recyclable nor biodegradable net to wrap the bales.

Visitors occasionally leave rubbish on site.

A number of unwanted items were collected over the years.

## **5. Emissions**

There are some agricultural machines that consume petrol and produce fumes.

The fire pit is often used. At present wood is brought on site by the hirers.

The open fireplace in the Pavilion is seldom used.

## **6. Biodiversity**

The site is not located in a protected area. However, the community is determined to manage this extremely human-impacted area of land in a way that would improve the

biodiversity. So far, we have: Planted 1000 deciduous trees (hazel, silver birch, oak, ash, wild cherry, beech), set up an apiary, planted heritage fruit trees, established a community allotment on the former grass tennis court and are returning the former cricket pitch to meadow.

A bird survey was carried out in 2020 and 12 fruit trees were planted in January 2021 - the start of a Forest Garden.

## **7. Carbon sequestration**

The site has changed significantly since it was taken on by the community but so far, no carbon sequestration assessment has been done. The Low Carbon Hub has been approached to help to identify an appropriate means of measuring.

## **8. Suppliers - environmental assessment**

Some thought is given to sourcing, but this could be more policy-led. There is no sustainable sourcing policy yet.

## **V Communication**

Once the above parameters have been measured and the actions identified it will be important to communicate with the wider community this ongoing work.

At present the community uses the site for private hires, occasional learning workshops e.g., hedge laying and composting and public events i.e. Wassail and Harvest Festival.

## ***Part 2:***

### **Plan for the year 2021:**

The proposed plan has been developed following the key aim of Hogacre and the “zero impact” principle discussed in the Report.

	<b>Description</b>	<b>Present state</b>	<b>ACTIONS proposed</b>	<b>RESULTS</b>
<b>Materials (on site and brought in)</b>	Soil	Land now used to grow fruit and vegetables, trees, meadow.  Compost in bags.	Taking measurement annually the improvement to soil health.  Soil testing.  Peat free.  Ban bag compost.  Compost should be delivered as e.g., horse manure or produced on site.	
	Plants and seeds	Some plants brought in plastic pots.	Ban plastic.	

	Plastics	<p>Polytunnel is in place: polythene is recyclable but not biodegradable. Degradation of the material due to weather exposure will result in plastic pollution of the soil.</p> <p>Light excluding soil covers biodegradable corn starch-based material and cardboard.</p> <p>Containers: from plants and seeds, compost bags etc.</p>	<p>Research availability of more sustainable options.</p>	
<b>Energy</b>	Electricity	<p>Hob, hot water, heating, lights, mower, scrapper: Energy bought from renewable energy supplier that sells renewable energy.</p>	<p>Improve the generation of green energy on site: e.g., solar panel.</p> <p>More energy efficient appliances.</p>	
	Fuel	<p>Baler, mower, woodchipper?</p> <p>Coppicing the hazel.</p> <p>Wood for fire pit and fireplace.</p>	<p>Encourage infrequent use (when alternative not available) and scything as preferred option.</p>	
<b>Water and effluents</b>	<p>Mains water: watering the Oxbow allotments, willow, hops, trees in the orchard etc.</p> <p>Mains water: for cleaning, toilets, cooking.</p> <p>Use of detergents.</p> <p>Cesspit? Septic tank.</p>	<p>Rainwater harvesting system in place.</p> <p>Use biodegradable detergent.</p> <p>Water bill paid by Corpus Christi College.</p>	<p>Stop using main water for watering purposes.</p> <p>Keep increasing rainwater harvesting system.</p> <p>Use only biodegradable detergent.</p> <p>More research into composting toilets.</p>	
<b>Effluents and waste</b>	<p>Organic waste: food, grass, green waste etc.</p> <p>Recyclable waste.</p> <p>Non-recyclable waste.</p>	<p>A number of unwanted items on site.</p> <p>The organic waste produced is transformed into compost and used within the Oxbow allotments.</p> <p>Baler: plastic net to wrap the bales non-recyclable nor biodegradable.</p> <p>Waste produced by hirers of the site.</p> <p>Occasional visitors leave rubbish on site.</p>	<p>Dispose of unwanted items.</p> <p>Significantly the quantity of the compost used on site.</p> <p>Define guidelines concerning all the material brought on site.</p> <p>Contact Material Science Department through Corpus Christi College to request help with the baler net.</p> <p>Define a protocol on waste for the hirers of the site.</p>	
<b>Emissions</b>	Agricultural machinery.	Fuel consumption.	<p>Encourage the use of manual tools such as scything.</p>	

	Fireplace.	Wood consumption.	Ensure its efficiency.  Discussion regarding its sustainability ongoing.	
<b>Biodiversity</b>	Flora and Fauna.	New woodland planted 2011.  Orchard, heritage fruit, 2014.  Bees kept for honey and pollination.  A bird survey was carried out November-December 2020.  Fruit trees planted in the Forest Garden in January 2021.  Former cricket pitch returning to wildflower meadow, light touch mowing, monitoring species regeneration. Wildflowers introduced.	Monitoring of ash die-back.  Replacement of dead trees with Forest garden.  Coppicing the Hazel.  Ongoing monitoring.  More yellow rattle to be planted.	
<b>Suppliers - environmental assessment</b>	Wood, woodchip, plants, seeds, food suppliers.	No sustainable sourcing policy yet.	Develop a sustainable sourcing policy.	
<b>Carbon sequestration</b>	Land.	No measurement taken.	Research is needed. Get in contact with LCH.	
<b>Communication</b>	Communication to the wider community.	Sporadic communication to the community.	Implement ways and frequency to reach out about Hogacre activities.	

Action accepted for the year 2021

**Part 3: Excel spreadsheet for monitoring consumables attached**