

HERTFORDSHIRE BIOLOGICAL RECORDS CENTRE

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Mr Richard Aston
Principal Development Control Officer
Welwyn Hatfield Council
Welwyn Garden City
Hertford

Plask for :- G Goodall
Our Ref :-
Your Ref :- S6/2010/2055/MA
Tel :- [REDACTED]

Date :- 01/12/2010

Dear Mr Aston

Planning Application: S6/2010/2055/MA; Land at Broadwater Rd, WGC
Full Planning Permission for part demolition, repair, restoration, extension and conversion of former Shredded Wheat factory complex; retail, business, heritage centre, energy centre, leisure, Civic Square building, residential. Vehicular and pedestrian access; parking, landscaping and associated works.
Outline Planning Permission for development of the land to the west and south to comprise: retail, business, hotel, residential; all other matters reserved apart from access.

B3 ECOLOGY: Broadwater Road West. Part C – Supporting Appendices.
Hurley Palmer Flatt. August 2010.

Paragraph numbers refer to those used in the report.

1.0 Introduction

A Phase 1 Habitat walkover survey was conducted on 22nd July 2009.

COMMENT: the data collected is already 16 months old and will be considered too old by Natural England if there are protected species issues to be mitigated for in the proposed development.

4.2 Bats

The Conservation (Natural Habitats, &c.) Regulations 1994.

COMMENT: The Regulations were updated in 2010 and should be referred as such.

5.2 Field Survey

A Phase 1 Habitat walkover survey was conducted on 22nd July 2009.

Limitations:

The report states: *“Ecological surveys are limited by factors, which affect the presence of plants and animals, such as the time of year, migration patterns and behaviour and the ecological survey of this Site has not produced the complete list of plants and animals.”*

COMMENTS:

- We consider July not to be an optimum month to conduct surveys, particularly for reptiles when day-time temperatures can be too high.
- We consider the statement: *“...the ecological survey of this Site has not produced the complete list of plants and animals.”* proves this point

- The data collected is already 16 months old and will be considered too old by Natural England if there are protected species issues to be mitigated for in the proposed development.

Further survey:

We note a bat survey was conducted on 25th May 2010.

COMMENT: a full copy of the bat survey has not been submitted with the application.

7.2 Site Survey

Ruderal vegetation:

The report states: *"These plant communities play an important ecological role in providing habitats for numerous species of insects and other animals."*

HBRC COMMENTS.

- The Ecology report, as submitted, is very basic and lacks detail, particularly specific species surveys.
- Results of the tree survey have not been submitted.
- Results of the bat survey have not been submitted.
- A comprehensive Plant List has not been submitted.
- A survey of invertebrates has not been completed, despite the statement made in 7.2 above.
- The report does not contain a Phase 1 Habitat map and Target Notes.
- HBRC take the view that a full Reptile survey should have been conducted on the site. Proving absence is just as important as proving presence.
- No details are given as to how the site could be enhanced for biodiversity; landscaping, SUDS, native planting (blossom, nectar, fruit), bat boxes, bird boxes, reptile refugia, open water, public open space.

HBRC ADVICE.

Hertfordshire Biodiversity Action Plan.

The design of the site should help the LPA to deliver the Hertfordshire Urban Action Plan, which has the following Objectives:

Objective 1: to protect urban habitats and protected species within the urban areas of Hertfordshire.

Objective 2: to increase the biodiversity of existing urban greenspaces and promote opportunities for biodiversity gain in all appropriate developments.

Objective 3: raise awareness of urban biodiversity and promote opportunities for involvement in urban conservation.

Benefits for urban wildlife:

Bats.

Opportunities should be taken to create new roosting/breeding sites in the new buildings.

Providing new nest sites for urban birds.

Once common species such as Starlings and House sparrows have declined (more than 50%) so rapidly in the last 25 years that they have been placed on the national Red List – Birds of Conservation Concern 2009. Both are urban birds.

House sparrows are closely associated with people. Their highest population densities are usually found in urban areas. They nest in cavities (buildings, trees), and will take to nest boxes either in the walls or mounted on buildings.

Nesting sites must *never* be situated in strong sunlight. Therefore, ideal locations for nest boxes are on the north, north-east and south-east sides of buildings. Nest boxes can be made of various materials and are easily bought.

- Plywood nest boxes, made from WBP 12mm plywood, can be fixed externally under the eaves. This is a cheap alternative when an internal solution is not possible. The boxes can also be fitted just inside the eaves, with a suitable entry hole accessible from beneath.
- Internal ventilated plywood partitions (30-40cm) can be installed inside the eaves, with an open ventilation gap.
- Swift 'nest bricks' (woodcrete) can be installed in the fabric/brickwork of a building (see below). Must be a minimum of 5 metres above ground level.
- Surface-mounted woodcrete nest boxes can be fitted to an outer wall at roof-level on plant rooms and air conditioning units.
- Nest sites can be built into ventilation turrets with swifts gaining access through the louvres.

Nest bricks for buildings; model N25. Order code A02044

Swift box (mimics bell tower louvres) No. 16 (single or double), plus nest mould

Swift box No. 18 suitable for fixing under eaves. Order code A02041A

Available from: Alana Ecology Ltd, The Old Primary School, Church Street, Bishop's Castle, Shropshire. SY9 5AE. Tel: 01588 630173. Email: sales@alanaecology.com

Website: www.londons-swifts.org.uk

Free advice: mail@londons-swifts.org.uk

Sustainable Drainage Systems (SUDS)

Consideration should be given designing SUDS into the redevelopment of the town centre.

The species that are introduced will have a great effect on the wildlife that a SUDS is able to support. Generally speaking, it is not the mixture of species that is important, but their structure. Overall, a balance of oxygenating plants, floating and emergent plants is preferred, with as many wetland plants as there is habitat for.

Green Roofs

Green Roofs can be created on high roofs by spreading a thin layer of nutrient-poor substrate; eg. crushed brick and concrete. Individual particles consist of dust up to 30mm; depths should vary from 7-15cm forming a 'ridge-and-furrow' structure. Large rocks and logs can be added to create a diversity of habitat.

Benefits:

- solar panels work more effectively on green roofs
- saves energy; both heating and air conditioning costs
- increases the life-span of the roof (double for flat roofs)
- provides protection from temperature extremes, standing water and ultra-violet radiation
- the insulation effect of the substrate and vegetation saves energy

- controls storm water run-off by acting as a sponge and allowing water to run off gradually
- as a result, a significant proportion of the water evaporates back up in to the atmosphere
- noise insulation
- increases biodiversity; eg. 28 species of rare invertebrate can benefit from green roofs
- landscape; green roofs are more pleasant to look out on than bare conventional roofs
- green roofs increase property values

Green roof design should include such features as mixed and piled aggregates, windbreaks, song posts for birds and sparse vegetation. With careful for-thought, green roofs can fulfil an ecological function, as well as many other environmental benefits.

Landscaping.

Landscaping should deliver major benefits for:

- Hydrology
- Ecology and Nature Conservation
- Townscape and Views
- Air Quality and Climate
- Microclimate

Opportunities exist for wildlife enhancement, and public enjoyment, from landscaping and new planting. A good mixture of pollen, nectar and berry bearing plants will enhance the new development both for wildlife (insects, bats and birds) and the local community (visual - colour, smell – scent of flowers, hearing – insects and birds). The following species are recommended.

Trees		Shrubs	
Common name	Latin name	Common name	Latin name
Silver birch	<i>Betula pendula</i>	Blackthorn	<i>Prunus Spinosa</i>
Downy birch	<i>Betula pubescens</i>	Firethorn	<i>Pyracantha coccinea</i>
Holly	<i>Ilex aquifolium</i>	Privet	<i>Ligustrum ovalifolium</i>
Crab apple	<i>Malus sylvestris</i>	Lilac	<i>Syringa vulgaris</i>
Wayfaring tree	<i>Viburnum lantana</i>	Dogwood	<i>Cornus sanguinea</i>
Wild cherry	<i>Prunus avium</i>	Cotoneaster	<i>Cotoneaster frigidus</i>
Bird cherry	<i>Prunus padus</i>	Spindle	<i>Euonymus europaeus</i>
Field maple	<i>Acer campestre</i>	Buddleia	<i>Buddleia davidii</i>
Ash	<i>Fraxinus excelsior</i>	Guelder rose	<i>Viburnum opulus</i>
Rowan	<i>Sorbus aucuparia</i>	Dog rose	<i>Rosa canina</i>

Living Walls.

These features should include climbing plants such as:

Honeysuckles (*Lonicera*):

Dropmore Scarlet, Caprifolium (cream), Halliana (yellow), Pericyclamen Serotina (red/purple), Pericyclamen Florida (red with cream throat).

Clematis:

Alabast, all Alpinas and Macropetalas, Anna Louise, Arctic Queen, Blueboy, Carnaby, Dawn, Elsa Spath, Lasurstern, Nelly Moser, Pink Champagne, Royal Velvet, Snow Queen.

Site drainage and SUDS:

Urban storm water management is increasingly becoming a key issue in both new and developed urban areas in terms of flood and water quality protection. Controlling such waters using Sustainable Drainage Systems (SUDS) can provide/create 'green areas' with their associated wildlife benefits and recreational opportunities. Therefore, SUDS are drainage systems in urban locations (road schemes, housing estates, industrial estates, business parks) that are designed to control polluted water.

It is one of the Environment Agency's roles to promote sustainable development and to establish SUDS as normal practice.

Descriptions of SUDS:

- Filter strips (vegetated ground); drains, gravelled trenches designed to collect storm water.
- Porous asphalt, paving, permeable pavements in car parks store pollution (hydrocarbons and heavy metals) from cars. The polluted water is retained and evaporation used to reduce water volume; this can reduce discharges to zero.
- Flood attenuation basins (detention basins – dry most of the time).
- Ponds, lagoons and wetlands (reedbeds).
- SUDS must not be used for the control of construction sediments.

Property values can be 15% higher when they over-look water, even a SUDS wetland.

Green roofs help with water management; rainwater harvesting, runoff control, irrigation.

SUDS drivers.

- EU Groundwater Directive
- EU Water Framework Directive requires waters to attain "good ecological status".
- PPG 25 (PPS 25) Development and Flood Risk – improving the environment
- Sustainable Development and Agenda 21
- PPG 23 (PPS 23) Planning and Waste Management

A recent Defra consultation 'Making space for water' has resulted in an Interim Code of Practice for SUDS. The code provides model agreements that can either use the Town and Country Planning Act (1990) Section 106 agreement or a planning condition to facilitate maintenance. However, there is still some ambiguity as to how long term maintenance of SUDS can be guaranteed.

Design criteria.

SUDS typically try to balance the need to control hydraulics, water quality and amenity; usually known as the 'SUDS triangle'. It is unlikely that every site will offer the opportunity to deliver all three.

Climate change should be catered for. Therefore, typically increase rainfall by 10% and river flows by 20%. It will still be necessary to demonstrate that exceedance flows above ground do not cause buildings to flood for the 100 year return period. Therefore, the additional effect of climate change can be taken into account by:

100 year rainfall period (RP) + 10% + 20%,

which is roughly equivalent to a 30 year RP + 50%

Detailed guidance on SUDS is provided in 'The Suds Manual' – CIRIA C697 (2007).

Biodiversity.

SUDS schemes have the ability to deliver biodiversity by creating suitable habitats; mostly 'wetlands'. Any structures associated with a SUDS should not trap or damage wildlife; eg. sumps, petrol interceptors, open pipes. Walls and structures should be designed to create places for animals by using gabions (stones in steel baskets) rather than bricks and steel.

Management and maintenance.

Owners of developments that contain SUDS need to understand what the component parts of SUDS are, how they work and what maintenance is required to ensure that they continue to function.

SUDS (swales, ponds and wetlands) and their surrounding areas should be encouraged to develop 'natural' vegetation with less intensive maintenance and reduced costs. This approach should enhance biodiversity.

The EA now accept that most inorganic and organic arisings from SUDS wetland systems can be removed and spread within 10 metres of the SUDS feature subject to an assessment of quality. Nuisance weeds and vigorous colonisers should be removed at regular intervals, but no more than 25% of a wetland should be removed at any one time. All maintenance and management prescriptions should make full consideration of the presence of protected species and other wildlife.

The Flood and Water Management bill may lead to potential changes in the design and adoption criteria for SUDS.

HBRC CONCLUSIONS.

1. LPA legal duties and the planning system.

Local Authorities have a legal duty to have regard to the purpose of conserving biodiversity under Section 40(1) of the Natural Environment & Rural Communities Act 2006.

"every public authority must in exercising its functions have regard...to the purpose of conserving biodiversity"

This duty includes restoring and enhancing biodiversity.

Some of the UK BAP habitats and Habitats of Principal Importance in England are protected under Section 41 of the NERC Act 2006.

Whilst not strictly protected, government policy is that the LPA should take measures to protect and enhance these habitats.

There are over 400 species of invertebrate on the UK BAP and they are identified as Species of Principal Importance in England under Section 41 of the NERC Act 2006. Suitable habitats for invertebrates include brownfield sites and scrub.

There are several 'common' NERC species that might occur on the site; namely, House Sparrow, Starling, Hedgehog, reptiles, bat species, any number of invertebrates.

Therefore, the design of the site should assist in the delivery of the Hertfordshire Urban Action Plan, and create habitat opportunities for 'urban' wildlife species.

2. GOVERNMENT CIRCULAR ODPM Circular 06/2005 Defra Circular 01/2005
To accompany Planning Policy Statement 9
Biodiversity and Geological conservation – Statutory obligations and their impact
within the planning system
ODPM Circular 06/2005 16 August 2005

PART III Conservation of Habitats and Species outside Designated Sites
A HABITATS AND SPECIES IN UK AND LOCAL BIODIVERSITY ACTION PLANS
Habitats and species of principal importance in England

84. The potential effects of a development, on habitats or species listed as priorities in the UK Biodiversity Action Plan (BAP) and by Local Biodiversity Partnerships, together with policies in the England Biodiversity Strategy are capable of being a material consideration in the preparation of regional spatial strategies and local development documents and the making of planning decisions.

85. Section 74 of the Countryside and Rights of Way Act 2000 places new duties on Government Ministers and Departments in respect of the conservation of biodiversity. In exercising his duty, the First Secretary of State may include local authorities to promote the taking of steps by others to further the conservation of the habitat types and species of principal importance for biodiversity. In PPS9, the Government has indicated that local authorities should take steps to further the conservation of habitats and species of principal importance through their planning function (see PPS9 paragraphs 11 and 14). The lists of the habitat types and species subject to this duty were published by Defra in 200290 and comprise the list of species and habitats identified as priorities under the UK Biodiversity Action Plan.

3. BAP and Protected Species; Conclusions.

- The Ecology report is very basic and lacks detail, particularly specific species surveys.
- Results of the tree survey have not been submitted.
- Results of the bat survey have not been submitted.
- A comprehensive Plant List has not been submitted.
- A survey of invertebrates has not been completed.
- A Phase 1 Habitat map with Target Notes has not be submitted.
- A full Reptile survey should have been conducted on the site.
- No details have been given as to how the site could be enhanced for biodiversity;

Given the lack of submitted ecological information, we advise that this application cannot be approved.

Yours sincerely,

Graham Goodall CEnv. MIEEM
Senior Ecologist

Working on behalf of:
HERTFORDSHIRE COUNTY COUNCIL, DACORUM BOROUGH COUNCIL, EAST HERTFORDSHIRE DISTRICT COUNCIL, HERTSMERE
BOROUGH COUNCIL, NORTH HERTFORDSHIRE DISTRICT COUNCIL, CITY AND DISTRICT OF ST ALBANS,
THREE RIVERS DISTRICT COUNCIL, WELWYN HATFIELD COUNCIL, NATURAL ENGLAND and ENVIRONMENT AGENCY