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7702: THE PIGGERIES, WATERLOO LANE, HOLWELL

BRIEFING NOTE: ECOLOGICAL APPRAISAL

Introduction

1. Ecology Solutions was instructed by Intouch Planning Limited in November 2017 to complete an ecological appraisal of a parcel of land south of Waterloo Lane, Holwell, Hertfordshire (see Plan ECO1).

2. The site is located to the south of the village of Holwell. It is bounded to the east and south by arable fields, and directly to the north and west by residential properties and associated gardens.

3. The site itself is a small parcel of land currently containing three disused barns and stables in various stages of disrepair. The majority of the site is devoid of vegetation.

4. The site is in receipt of planning permission (planning ref: 17/02247/1) subject to a number of conditions. Condition 11 is concerned with ecological issues and is as follows:

   Prior to the commencement of the development or any demolition on site, an ecological appraisal of the application site shall be carried out by a suitably qualified person, together with a mitigation strategy should protected species be found, and then submitted to and approved in writing by the local planning authority. Thereafter the development shall be carried out in accordance with these approved details.

   Reason: In the interests of the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2010. If protected species are present it is illegal to intentionally or recklessly kill, injure or take any individuals or to deliberately capture or disturb individuals. It is an offence to intentionally or recklessly damage or destroy a roost, to obstruct a roost, and to disturb an individual whilst occupying the roost.

5. The proposals for the site include the demolition of the three dilapidated existing barns and construction of three dwellings within their footprints.

Survey Methodology

Habitat Survey

6. A habitat survey was carried out in November 2017 in order to ascertain the general ecological value of the land contained within the boundaries of the site, and to identify the main habitats and associated plant species.

7. The site was surveyed based around extended Phase 1 survey methodology, as recommended by Natural England, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail.

8. Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified.

9. All the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent at different seasons. Nonetheless, given the habitats present it is considered an accurate and robust assessment has been made.

Faunal Survey

10. Obvious faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to any potential use of site by protected species, priority (formerly referred to as Biodiversity Action Plan) species, or other notable species. Furthermore, targeted surveys were completed in respect of Badger *Meles meles*, bats and Barn Owl *Tyto alba*.

<u>Badgers</u>

11. The site was surveyed for Badgers during November 2017.

12. For any setts encountered each sett entrance would be noted and plotted, even if the entrance appeared disused. The following information would be recorded:

    i) The number and location of well used or very active entrances; these are clear of any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently.

    ii) The number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance.

    iii) The number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be together with the remains of the spoil heap.

13. Evidence of Badger activity such as well-worn paths, run-throughs, snagged hair, footprints, latrines and foraging signs was recorded so as to build up a picture of any use of the site by Badgers.

Bats

14. All buildings within the site were assessed for their potential to support roosting bats. Furthermore, targeted internal and external surveys were completed of all buildings with specific searches made for past or present evidence of roosting bats.

15. The probability of a building being used by bats as a summer roost site increases if it:

- is largely undisturbed;
- dates from pre-20th Century;
- has a large roof void with unobstructed flying spaces;
- has access points for bats (though not too draughty);
- has wooden cladding or hanging tiles; and / or
- is in a rural setting and close to woodland or water.

16. Conversely, the probability decreases if a building is of a modern or pre-fabricated design / construction, is in an urban setting, has small or cluttered roof voids, has few gaps at the eaves or is a heavily disturbed premises.

17. The main requirement for a winter / hibernation roost site is that it maintains a stable (cool) temperature and humidity. Sites commonly utilised by bats as winter roosts include cavities / holes in trees, underground sites and parts of buildings. Whilst different species may show a preference for one of these types of roost site, none are solely dependent on a single type.

18. All trees were assessed for their potential to support roosting bats. Features typically favoured by bats were searched for, including:

- Obvious holes, e.g. rot holes and old Woodpecker holes;
- Dark staining on the tree, below the hole;
- Tiny scratch marks around a hole from bat claws;
- Cavities, splits and or loose bark from broken or fallen branches, lightning strikes etc.; and
- Very dense covering of mature Ivy over trunk.

Barn Owl

19. The buildings were surveyed for the presence or evidence of occupation by Barn Owls. This involved a visual inspection of all potential nesting and roosting sites, and a search for droppings, feathers or pellets.

Ecological Features

20. Habitat surveys were undertaken in November 2017. It is considered that the vegetation present at the time of the survey enabled the habitat types to be satisfactorily identified, and an accurate assessment of the ecological interest of the habitats to be undertaken.

21. The following main habitat / vegetation types were identified within or immediately adjacent to the site:

- Buildings / Structures;
- Bare Earth;
- Semi-improved Grassland;
- Hedgerows; and
- Trees.

22. The location of the above habitats are shown on Plan ECO2, and described individually below.

Buildings / Structures

23. There are three old and disused barns and stables present with the site boundaries. They are present in various states of disrepair.

24. Building B1 is an old timber framed stable with brick foundations. It supports a pitch roof comprising of wooden boards covered in corrugated metal sheeting. The southern and western walls are covered in corrugated metal sheeting, with the northern and eastern walls being covered in wooden weather boards (see Photograph 1). The building does not support any internal loft void and is in a state of disrepair, with the eastern and northern end of the building missing much of the weather boarding. Adding to the openness of the building, the doorways in the southern aspect are missing the doors. As such, the building is light and draughty. Cobwebs are present throughout the stable. To the rear of building B1 there is a pile of old corrugated metal sheets, logs and branches.

25. Building B2 is again likely to be an old stable, separated into two rooms. It is a timber framed construction supporting a sloped corrugated metal roof with no loft void. The walls are covered with wooden weather boards. To the south of the building is an additional timber framed room supporting corrugated metal roof and walls. The whole of the eastern aspect of the building is open to the elements (see Photograph 2). Additionally, there are missing weather boards in the northern and western aspects of the building. The roof supports many holes with Ivy *Hedera helix* growing through into the building. Cobwebs can be found throughout the building.

26. Building B3 is a large timber framed domed barn with brick and breezeblock foundations, and corrugated metal walls and roof (see Photograph 3). There is no loft void present. The northern aspect of the building is completely open. The southern aspect has additional corrugated clear plastic to provide light. Above this corrugated plastic is a large opening. Building B3 is in a better state of repair than the other two buildings present on site, although it is still light and draughty due to the open ends. The building is clean with very few cobwebs.

Bare Earth

27. The majority of the site has recently been cleared leaving only bare earth (see Photograph 4). Associated with the bare earth a few floral species were still found to be present, albeit in small proportions. These include Yorkshire Fog *Holcus lanatus*, Hemlock *Conium maculatum*, Great Mullein *Verbascum thapsus*, Bristly Ox-tongue *Helminthotheca echioides*, White Dead-Nettle

Lamium album, Spear Thistle *Cirsium vulgare*, and Common Nettle *Urtica dioica*. There is a pile of old wooden telegraph poles laying on the bare earth to the west of building B3.

Semi-improved Grassland

28. There was a small strip of semi-improved grassland running along the entirety of the eastern edge of the site, between the area of bare earth and the arable field. The grassland was dominated by Yorkshire Fog, with Hemlock and Common Nettle occurring frequently. Species occurring occasional include Cleavers *Galium aparine* and Hogweed *Heracleum sphondylium*. All other species occurred only rarely and include Greater Burdock *Arctium lappa*, Spear Thistle, Creeping Buttercup *Ranunculus repens*, Nipplewort *Lapsana communis*, Hedgerow Crane's-bill *Geranium pyrenaicum*, Chickweed *Stellaria*, White Dead-Nettle *Lamium album*, Broad-leaved Dock *Rumex obtusifolius*, Bristly Ox-tongue and Dandelion *Taraxacum officinale*.

Hedgerows

29. There is a single hedgerow (H1) found along the western boundary of the site, separating it from the residential property beyond. The northern end of the hedgerow is relatively well managed Cherry Laurel *Prunus laurocerasus* standing approximately 4m tall with no understorey. The ground flora is dominated by Ivy, with Common Nettle, Hedge Woundwort *Stachys sylvatica* and Ground Ivy *Glechoma hederacea* occurring occasionally. Other species that occurring rarely include Bramble *Rubus fruticosus*, Creeping Buttercup *Ranunculus repens*, Cleavers *Galium aparine,* Yorkshire Fog, Hemlock and Creeping Thistle *Cirsium arvense*. There is a break in the hedgerow and the ground here has been stripped bare. The hedgerow then continues to the south as unmanaged Elder *Sambucus nigra* and Ivy. Ground flora species include Common Nettle and Cleavers. There is a dry ditch present beyond the hedgerow.

Trees

30. There is a single line of off-site semi-mature trees running adjacent to the northern boundary, associated with the residential property beyond. The treeline consists of Ash *Fraxinus excelsior*, many of which have Ivy growing up them. The understorey comprises Ivy, Hawthorn *Crataegus monogyna*, Elder, Holly *Ilex aquifolium* and Bramble. The ground flora is dominated by Ivy, with Common Nettle, Cleavers and Ground Ivy occurring occasionally. Species occurring rarely include Garlic Mustard *Alliaria petiolata*, Hedge Woundwort, Hemlock and Mugwort *Artemisia vulgaris*.

31. A single mature, Ivy covered Hawthorn stands at the northern end of the hedgerow.

Wildlife Use of the Site

32. General observations were made during the survey of any faunal use of the site with specific attention paid to the potential presence of protected species.

Bats

33. A full detailed internal and external inspection of the three buildings was undertaken to ascertain their potential to support roosting bats and search for any past or current evidence of roosting bats. There was no evidence of roosting bats noted, and the buildings were found to offer negligible potential for roosting bats.

34. The off-site trees were also surveyed for their potential to support roosting bats. As a whole they were considered to offer negligible opportunities for roosting bats, with the overhanging limbs offering no potential. Given the absence of any roosting evidence and also suitability no further survey requirement or mitigation in regard of bats is considered necessary.

Badgers

35. No evidence for the presence of Badgers were noted during the extended Phase 1 survey and checks for Badger activity. The site is considered to offer low opportunities for Badger foraging due to the lack of on-site vegetation. However, the surrounding area offers good opportunities, so their occasional use of the site for dispersal cannot be dismissed.

Birds

36. Bird species recorded by sight or call during the course of the survey include Robin *Erithacus rubecula* and Wren *Troglodytes troglodytes*. There was evidence that Feral Pigeon *Columba livia* had entered building B1, and an old nest was present in building B2. It is also considered that the trees and hedgerow would offer some nesting and foraging opportunities for bird species.

37. The three buildings were surveyed specifically for their potential use by Barn Owl. The buildings are considered to offer negligible opportunities for this species, and the lack of field signs would suggest that they are not currently in use by this species.

Reptiles

38. The hedgerow, and pile of metal sheeting, logs and branches behind building B1 offer negligible opportunities for reptiles. No significant areas of habitats suitable for reptiles are present within the site. Given the paucity of habitats present no further regard to reptiles is required.

Amphibians

39. The neighbouring habitats are considered suitable for amphibian species. There are no waterbodies on site, and the habitats within the site offer only negligible opportunities in the form of the hedgerows. All other habitats on site are not likely to offer any opportunities for this group. It is considered that the hedgerows will be retained as part of the development and hence continued opportunities should be safeguarded. No further regard to amphibians is required.

Invertebrates

40. The habitats within the site are largely unsuitable for invertebrate species. The hedgerows and trees are expected to support an assemblage of common and widespread invertebrate species although there is no reason to suspect the likely presence of any scarce or notable invertebrate species. Temporarily displaced invertebrates shall recolonise the site following development.

Evaluation

41. The latest guidelines for ecological evaluation produced by CIEEM[1] propose an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.

42. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe[2]. These are broadly used across the United Kingdom to rank sites so priorities for nature conservation can be attained. For example, current sites of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.

43. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.

44. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.

45. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with a comparatively poor species diversity, common in the south of England, may be of importance at its northern limits, say in the border country.

46. In addition, habitats of local importance are often highlighted within a local Biodiversity Action Plan (BAP). The Hertfordshire BAP[3], highlights a number of habitats and species. Where these occur within the application site they highlighted below.

47. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the International level.

48. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

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[1] CIEEM (2016). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal*. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.

[2] Ratcliffe, D A (1977). *A Nature Conservation Review: the Selection of Study areas of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

[3] http://www.hef.org.uk/nature/biodiversity_vision/chapter_03_habitat.pdf

Habitat Evaluation

49. In the context of the site and immediate surroundings, the hedgerow and trees are of most ecological interest. It is therefore recommended these features are retained and protected as part of the proposals where possible. The other habitats on site are of limited nature conservation interest and their loss to facilitate the proposed development would be of low significance.

50. It is recommended that any new landscape planting incorporates native species or species of known wildlife value.

Faunal Evaluation

Birds

51. Schedule 1 of the Wildlife & Countryside Act 1981 is concerned with the protection of wild birds. With certain exceptions all wild birds and their eggs are protected from intentional killing, injuring and taking; and their nests, whilst being built or in use, cannot be taken, damaged or destroyed.

52. Schedule 1 part 1 of the Wildlife & Countryside Act 1981 is a list of the nationally rarer and uncommon breeding birds for which all offences carry special (i.e. greater) penalties. These species also enjoy additional protection whilst breeding, as it is also an offence to disturb adults or their dependant young when at the nest.

53. Owing to the evidence that birds are using buildings B1 and B2, it is recommended that the demolition of these buildings is completed, outside the breeding season (March to July inclusive) or after a suitably qualified ecologist has undertaken checks to ensure no nesting birds are present. If any active nests are confirmed as being present, they should be left in situ until the young have fledged. It is considered that the hedgerow and trees would be retained as part of the development, but it is recommended that any removal is subject to the above timing constraints or checks.

54. New native tree planting, would offer replacement and new foraging and nesting opportunities for birds. The planting of berry / fruit-bearing species would also provide enhanced foraging opportunities.

Summary

55. Ecology Solutions was instructed by Intouch Planning Limited in November 2017 to complete an ecological appraisal of a parcel of land south of Waterloo Lane, Holwell, Hertfordshire.

56. The site is located to the south of the village of Holwell. It is bounded to the east and south by arable fields, and directly to the north and west by residential properties.

57. The site consists in the main of bare earth with three disused barns in various states of disrepair. A strip of semi-improved grassland is present along the eastern boundary, and a single hedgerow is found along the western boundary. A line of trees sits adjacent to the northern boundary, associated with the residentially property beyond.

58. The site is in receipt of planning permission (planning ref: 17/02247/1) subject to a number of conditions, of which Condition 11 is concerned with ecological issues.

59. No evidence of the presence of any protected, priority and notable species was recorded during survey work completed by Ecology Solutions.

60. A number of common bird species were found to be using the site for foraging and nesting.

61. It would be recommended that the demolition of the buildings, and any clearance of suitable nesting vegetation present, be undertaken outside the bird nesting season (March to July inclusive) to avoid any potential offence. Should the above timing constraints conflict with any timetabled works, it would be recommended that works commence only after a suitably qualified ecologist has undertaken checks to ensure no nesting birds are present, and any confirmed nests left in situ until the young have fledged.

62. Following the completion of the considered necessary ecology surveys and through the implementation of the above mitigation it is considered the development would comply with current wildlife legislation. Given the above it is considered that Condition 11 can be discharged.

Plans

- Plan ECO1: Site Location
- Plan ECO2: Ecological Features

Photographs

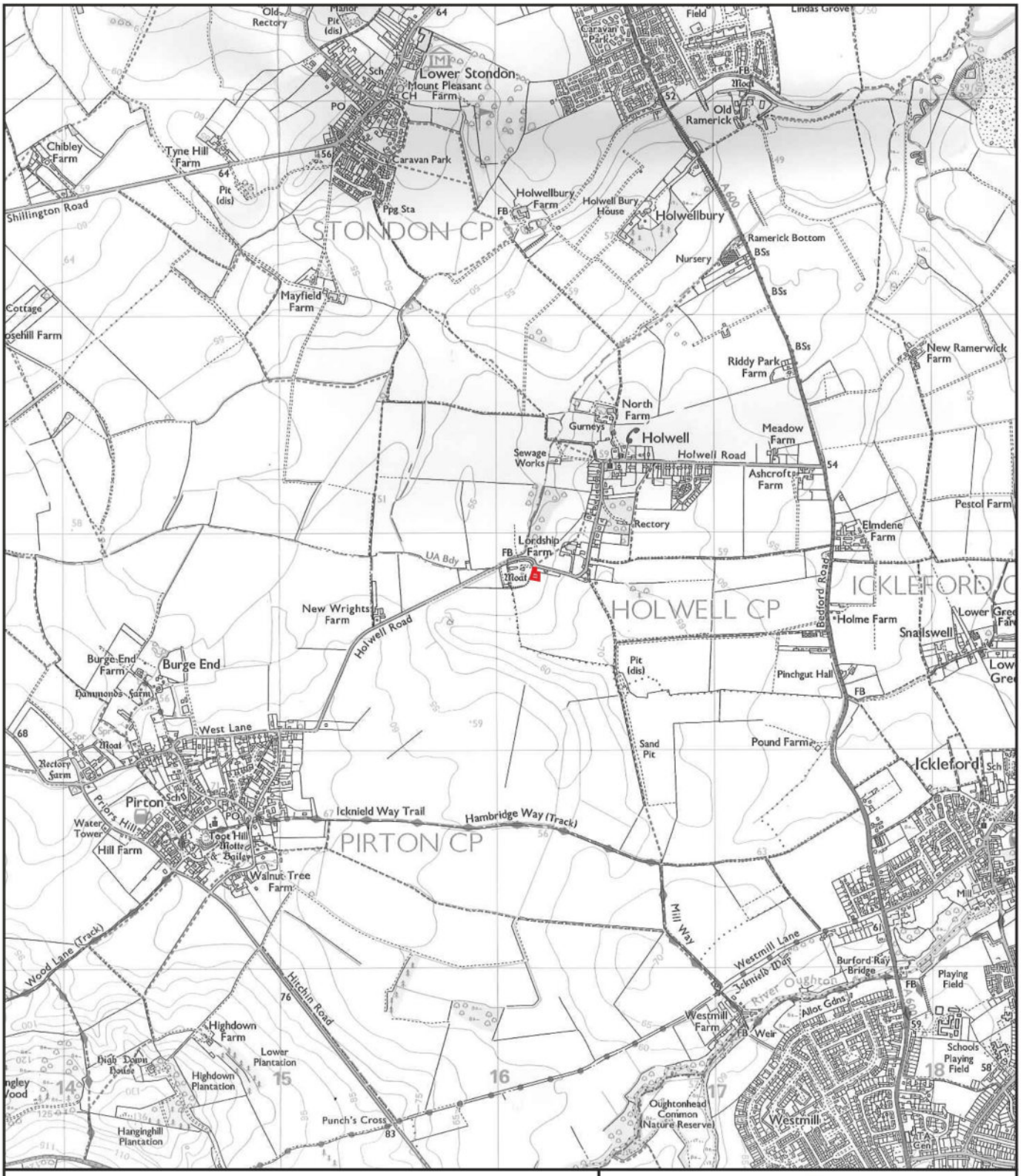
- Photograph 1: View of building B1
- Photograph 2: View of building B2
- Photograph 3: View of building B3
- Photograph 4: View of bare earth

Ecology Solutions
01.12.17.

PLANS

PLAN ECO1

Site Location



KEY:

SITE LOCATION

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PLAN ECO1: SITE LOCATION

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PLAN ECO2

Ecological Features



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PLAN ECO2:
ECOLOGICAL FEATURES

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PHOTOGRAPHS

PHOTOGRAPH 1: View of building B1



PHOTOGRAPH 2: View of building B2



PHOTOGRAPH 3: View of building B3



PHOTOGRAPH 4: View of bare earth





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