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PROPOSED DEVELOPMENT

**DECOY FARM
CROWLAND**

ECOLOGICAL ASSESSMENT

Client:

Organic Recycling Ltd
Decoy Farm
Postland Road
Crowland
Peterborough
PE6 0JX

The Robert Stebbings Consultancy Limited
91 Thorpe Road
Peterborough
Cambridgeshire
PE3 6JQ

Telephone: 01733 211666
Facsimile: 01733 211393

Telephone: 01733 340318
Facsimile: 01733 897018

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EXECUTIVE SUMMARY

Flora and habitat types

- No plants listed in Schedule 8 of the *WCA 1981* were recorded on the site.
- The site consists of five main habitat types:
 1. Arable fields,
 2. Ditches around the fields with steep banks, some dry and others with water.
 3. A small horse grazed pasture with rank vegetation.
 4. Narrow grassy tracks and ditch banks.
 5. A small copse with native and exotic species north of the site.

Fauna

- None of the trees contained bat roosts.
- There was no sign of badgers living in or visiting the area.
- No sign of water vole was found.
- There were no otter holts.
- No schedule 1 bird species is known to have territories within the study site but the woodland belt and copse with some marsh will support a number of common species for nesting. Habitat is good for the nesting of common species.
- The habitats on site are not suitable for slow worm and common lizard.
- Grass snakes may pass through the area but no significant habitat will be affected by the proposed development.
- There was no habitat suitable for breeding amphibians. Fish live in the ditches containing water.
- None of the habitats on site were likely to support invertebrates of particular note.



PROPOSED DEVELOPMENT, DECOY FARM, CROWLAND**ECOLOGICAL ASSESSMENT****1. SITE DESCRIPTION**

The proposed development is planned to be within arable fields and a small horse grazed pasture. There is a network of ditches around the fields.

There is an east-west concrete access track leading from the main road to the existing composting unit marking part of the northern boundary.

To the north of the proposed development area there is a small rectangular copse which, judging from the girth of about 16 pine trees, appears to be about 60-70 years old. This low lying area has a reed bed as an understorey and an old L-shaped ditch to the west and south edges.

2. METHODS AND CONSTRAINTS

2.1 The field survey involved walking over the study area to search for species of both plants and animal and to assess the habitat types. This included identifying plant species, looking for signs of animals such as footprints, droppings and burrows.

2.2 It is possible a few spring plants may not be visible and some animals may be hibernating but, nevertheless, it is believed this appraisal will have identified all the important wildlife issues which could be affected by developments.

2.3 This survey was conducted on 22 November 2012.

3. STATUTORY WILDLIFE DESIGNATIONS

There are no statutory wildlife designations either within the study site or adjacent areas, either under the *Wildlife and Countryside Act 1981* (as amended) or under international legislation such as The Habitats Directive embodied in *The Conservation (Natural Habitats, &c.) Regulations 1994*. The UK's *Biodiversity: Action Plans* list species of concern, which do not necessarily have Statutory protection at present, but are regarded as requiring positive management to enhance populations.



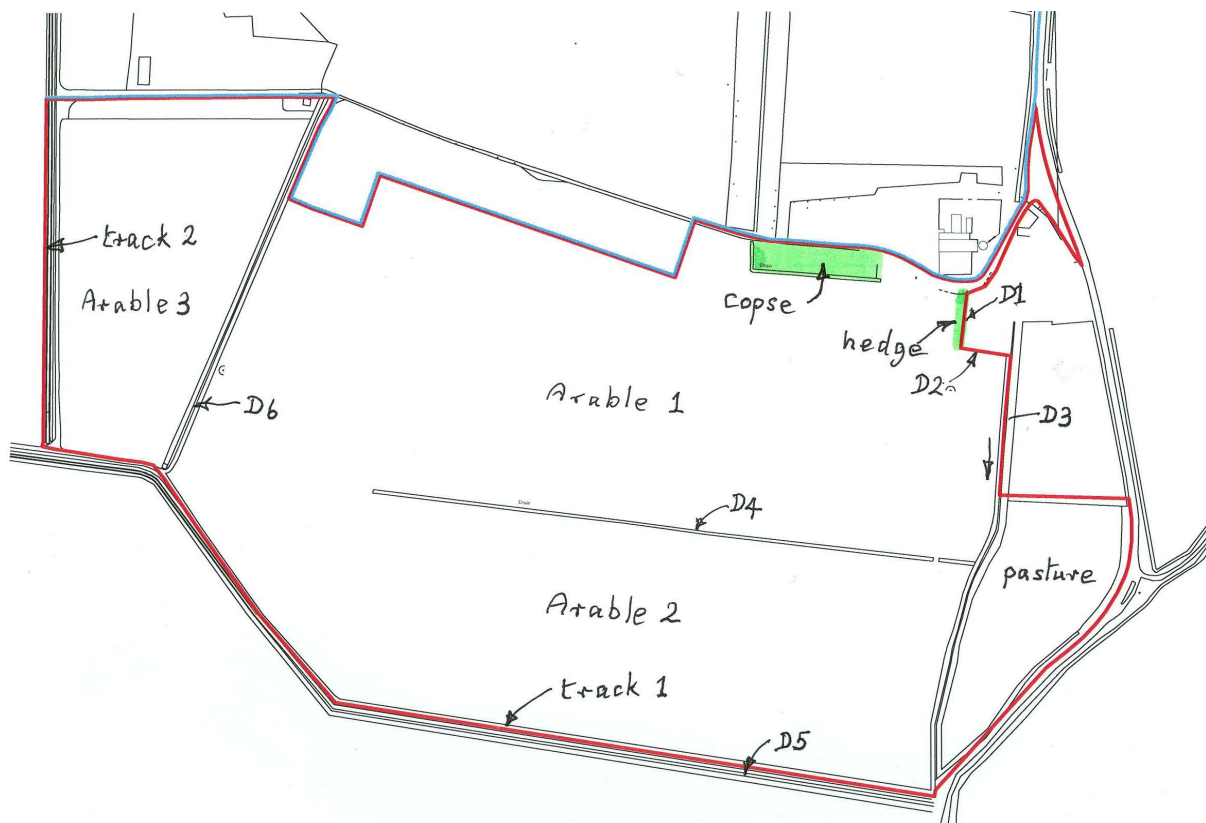


Figure 1 Survey area outlined in red. Features mentioned in text are shown.

4. FLORA - HABITAT SUMMARY

The walk-over has allowed broad characterisation of the habitat types found within the study area. The following notes summarise the main habitat types. Plants follow Clapham, Tutin and Moore, 1987.

4.1 Fields

The proposed development potentially may cover three fields which are in arable cultivation and one currently is a pasture. Field 1 has a seeded wheat crop following sugar beet in 2012. Fields 2 and 3 are cultivated ready for seeding but not planted at the time of survey. The pasture is poor grassland which appears to have been grazed by horses in the past. (The pastures immediately to the north have horses grazing at the time of this survey.) **See Appendix 1 for plant lists.**

4.2 Ditches

Generally, the ditches were about 1.5 metres deep with the banks at an angle of 60 degrees or more. The water was of variable depth and were up to 0.5m deep although D3 (photograph to right) was flowing rapidly south and about a metre deep and two metres wide at water level.



The survey followed a period of heavy rain so the flow was exceptional. Common reed is dominant along the ditch sides with reed sweet grass but other grasses were lush and evidently growing in nutrient rich soils. None of the species was uncommon. D1 and D2 were dry except the east end of D2. Similarly, D4 was more or less dry and grassy but the deeper and wider D5 had flowing water and was densely colonised by common reed.

See Appendix 1 for plant list.



Ditch D6 looking north which was more or less dry

4.4 Tracks

Along the south side of Field 2 there is a grassy track about six metres wide. The vegetation was typical of agricultural areas with rank grassland. In addition, to the west of Field 3 there is another track composed mostly of broken brick and gravel.

4.5 Copse to north of proposed development area

This rectangular area was clearly planted approximately 60 - 70 years ago (possibly longer) judging from the girth of the larger trees, mostly Scots and Corsican Pines. However, there were various exotic species including lilac, *Philadelphus*, snowberry, Wilson's honeysuckle, as well as elder, sycamore, hawthorn and hazel. The understorey was a mixture of common reed especially in the south and nettles and creeping thistle. Generally, the land was lower than the surrounding area and part may have been a pond in the past. There is a ditch on the south and west sides which is usually dry but with the recent rain there is some standing water in the base.

See Appendix 1 for plant list.



**Photograph of the Copse showing access track immediately to the north.
The current application area is principally south of the copse.**



5. FAUNA

5.1 Mammals - Introduction

Surveys were targeted at those mammal species having statutory protection under *The Conservation (Natural Habitats, &c.) Regulations 1994*, those listed in the *UKs Biodiversity: Action Plans* and in national and local Red Data lists. The aim was to use survey techniques to identify the presence or likely occurrence of given species.

5.1.1 Bats

All species of bat and their roosts are protected under Section 9 of the *Wildlife and Countryside Act 1981* (Schedule 5). Indeed, roosts are protected at all times irrespective of whether bats are present.

No buildings occur on the site which could support a bat roost, however bats also use holes in trees. None of the trees in the small copse had holes or fractures that might support a bat roost. The area is relatively isolated and open and unlikely to attract bats to feed over the area.

5.1.2 Badger

The badger is protected by the *Protection of Badgers Act 1992*, essentially this prevents actions causing cruelty as it is not rare or threatened with extinction.

No sign of badgers was found to occur within or close to the proposed development area. There was no sign that they visit the site for foraging. No sett was found in the immediate vicinity of the survey site.

5.1.3 Water vole

The survey area is surrounded and dissected by ditches. Most are usually dry with only D3 and D5 appearing to regularly contain water. All were examined carefully but there was no sign of water voles being present.

5.1.4 Otter

It is remotely possible that otters may use the ditch network to move between river catchments but there was no indication that they currently use any of the survey site and there was little cover which might attract them.

5.2 Amphibians

There were no old traditional ponds on or near the site. The two ditches which clearly usually contained water had a population of fish which predate on amphibians. Therefore, the ditches are unsuitable as breeding sites for amphibians, especially great crested newts.



5.3 Reptiles

The grassland verges and ditch sides were unsuitable habitat for the lizards (viviparous and slow worm). However, it is possible an occasional grass snake may pass along the ditches. These egg laying snakes are often attracted by casual composting operations with warm compost, but at this site which is adjacent to the organic composting unit, the potential egg laying resource is not suitable because material is moved frequently.

5.4 Birds

Few birds were seen on the site. Pheasant and sky lark were seen within the application area and there will be nesting birds associated with the reeds in the ditches. Skylark probably nest on the tracks around the arable fields.

5.5 Non-protected animals recorded

Rabbits, moles and field voles were present on field edges and banks of the ditches.

6. DISCUSSION

6.1 The proposed development site is principally arable fields. A smaller field to the south east consists of a horse grazed pasture which has a poor species list of plants.

6.2 There was no evidence of any protected plant or animal species living within or immediately adjacent to the site.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 The proposed development is within an intensively arable landscape with little habitat of ecological significance and no protected, rare or uncommon species apart from birds. All species of wild birds are protected while nesting.

7.2 The small copse in the north with a variety of trees and scrub is to be retained.

7.3 The creation of a landscaped and sheltered lagoon to the south east will provide a valuable new habitat for the area.

7.4 Therefore, there will be no impact on wildlife of any importance.



8. REFERENCES

- Clapham, A R, Tutin, T G & Moore, D M (1987)
Flora of the British Isles, 3rd Edition, Cambridge University Press
- Arnold, H R (1995)
Atlas of amphibians and reptiles in Britain CEH. HMSO
- Arnold, H R (1993)
Atlas of mammals in Britain ITE. HMSO



APPENDIX 1

LIST OF PLANTS

Location: Decoy Farm, Organic Recycling Ltd. Date: 22 November 2012

Recorder: RES

A = abundant, D = dominant, F = frequent, L = local/locally, O = occasional, R = rare

OVERALL LIST COVERING ALL AREAS

Scientific name	Colloquial name	Frequency
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Submerged Plants

<i>Callitriche intermedia</i>	Water starwort	LO
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Emergent or floating Plants

<i>Lemna minor</i>	Lesser duckweed	F
<i>Typha latifolia</i>	Reed mace	R

Grasses, sedges and rushes

<i>Arrhenatherum elatius</i>	Oat Grass	A - LD
<i>Bromus commutatus</i>	Meadow brome	O
<i>Bromus mollis</i>	Soft brome	O
<i>Dactylis glomerata</i>	Cocksfoot	F
<i>Elytrigia repens</i>	Couch grass	O
<i>Festuca pratensis</i>	Meadow fescue	LF
<i>Festuca rubra</i>	Red fescue	O
<i>Glyceria maxima</i>	Reed sweet grass	F
<i>Lolium perenne</i>	Rye grass	F
<i>Phalaris arundinacea</i>	Reed canary grass	O
<i>Phragmites australis</i>	Common reed	A
<i>Poa annua</i>	Annual meadow grass	F

Higher Plants

<i>Anthriscus sylvestris</i>	Cow parsley	F
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Barbarea vulgaris</i>	Common yellow rocket	R
<i>Bellis perennis</i>	Daisy	R
<i>Calystegia sepium</i>	Bindweed	R
<i>Cerastium arvense</i>	Field mouse-ear	R
<i>Chenopodium album</i>	Fat hen	R
<i>Cirsium arvense</i>	Creeping thistle	A
<i>Cirsium vulgare</i>	Spear thistle	O
<i>Conium maculatum</i>	Hemlock	O - LF
<i>Convolvulus arvensis</i>	Lesser bindweed	O
<i>Epilobium hirsutum</i>	Great willow herb	O
<i>Epilobium parviflorum</i>	Hairy willow herb	O
<i>Galium aparine</i>	Goose grass	A
<i>Geranium dissectum</i>	Cut-leaved cranesbill	O
<i>Geranium molle</i>	Soft cranesbill	O
<i>Heracleum sphondylium</i>	Hogweed	F
<i>Lactuca serriola</i>	Prickly lettuce	O
<i>Lamium album</i>	White dead-nettle	O
<i>Malva sylvestris</i>	Common mallow	O
* <i>Matricaria matricarioides</i>	Rayless mayweed	R
<i>Picris echioides</i>	Bristly ox-tongue	A
<i>Plantago lanceolata</i>	Ribwort plantain	O
<i>Plantago major</i>	Great plantain	O - LD
<i>Polygonum aviculare</i>	Common knotgrass	LF
<i>Ranunculus acris</i>	Meadow buttercup	LF
<i>Rumex obtusifolius</i>	Broad-leaved dock	O
<i>Senecio jacobaea</i>	Ragwort	LO
<i>Senecio vulgaris</i>	Groundsel	R
<i>Sinapis arvensis</i>	Charlock	O
<i>Sisymbrium officinale</i>	Hedge mustard	O
<i>Sonchus asper</i>	Prickly sowthistle	O
<i>Sonchus oleraceus</i>	Common sowthistle	O



<i>Taraxicum officinale</i>	Dandelion	O
<i>Trifolium medium</i>	Zigzag clover	O
<i>Trifolium repens</i>	White clover	O
<i>Tripleurospermum inodorum</i>	Scentless mayweed	R
<i>Urtica dioica</i>	Stinging nettle	O

Trees and Shrubs

<i>Crataegus monogyna</i>	Hawthorn	LO
<i>Rosa canina</i>	Dogrose	LO
<i>Sambucus nigra</i>	Elder	LO

PASTURE IN SOUTH EAST OF SITE, PROPOSED TO BECOME A LAGOON**Grasses, sedges and rushes**

<i>Arrhenatherum elatius</i>	Oat Grass	A - LD
<i>Bromus commutatus</i>	Meadow brome	O
<i>Dactylis glomerata</i>	Cocksfoot	F
<i>Elytrigia repens</i>	Couch grass	O
<i>Festuca pratensis</i>	Meadow fescue	LF
<i>Festuca rubra</i>	Red fescue	O
<i>Lolium perenne</i>	Rye grass	F

Higher Plants

<i>Anthriscus sylvestris</i>	Cow parsley	F
<i>Calystegia sepium</i>	Bindweed	R
<i>Cirsium arvense</i>	Creeping thistle	A
<i>Cirsium vulgare</i>	Spear thistle	O
<i>Conium maculatum</i>	Hemlock	O - LF
<i>Convolvulus arvensis</i>	Lesser bindweed	O
<i>Galium aparine</i>	Goose grass	A
<i>Geranium dissectum</i>	Cut-leaved cranesbill	O
<i>Geranium molle</i>	Soft cranesbill	O
<i>Heracleum sphondylium</i>	Hogweed	F
<i>Lamium album</i>	White dead-nettle	O
* <i>Matricaria matricarioides</i>	Rayless mayweed	R
<i>Picris echioides</i>	Bristly ox-tongue	A
<i>Plantago lanceolata</i>	Ribwort plantain	O
<i>Plantago major</i>	Great plantain	O - LD
<i>Ranunculus acris</i>	Meadow buttercup	LF
<i>Rumex obtusifolius</i>	Broad-leaved dock	O
<i>Senecio jacobaea</i>	Ragwort	LO
<i>Taraxicum officinale</i>	Dandelion	O
<i>Tripleurospermum inodorum</i>	Scentless mayweed	R
<i>Urtica dioica</i>	Stinging nettle	O

Copse north of present application site**Grasses, sedges and rushes**

<i>Phalaris arundinacea</i>	Reed canary grass
<i>Phragmites australis</i>	Common reed

Higher Plants

<i>Arctium pubens</i>	Common burdock
<i>Barbarea vulgaris</i>	Common yellow rocket
<i>Bryonia dioica</i>	White bryony
<i>Cirsium arvense</i>	Creeping thistle
<i>Filipendula ulmaria</i>	Meadow sweet
<i>Galium aparine</i>	Goose grass
<i>Heracleum sphondylium</i>	Hog weed
<i>Lamium album</i>	White dead-nettle
<i>Rumex obtusifolius</i>	Broad-leaved dock
<i>Solanum dulcamara</i>	Woody nightshade
<i>Urtica dioica</i>	Stinging nettle



Trees and Shrubs

*	<i>Acer pseudoplatanus</i>	Sycamore
	<i>Corylus avellana</i>	Hazel
	<i>Crataegus monogyna</i>	Hawthorn
	<i>Hedera helix</i>	Ivy
	<i>Lonicera nitida</i>	Wilson's honeysuckle
*	<i>Philadelphus</i> sp	Mock orange
	<i>Pinus sylvestris</i>	Scots pine
	<i>Pinus nigra</i> var. <i>maritima</i>	Corsican Pine
	<i>Salix fragilis</i>	Crack willow
	<i>Sambucus nigra</i>	Elder
*	<i>Symphoricarpos albus</i>	Snowberry
*	<i>Syringa</i> sp	Lilac
*	Species not native to Britain	

