

**Gavray Drive, Bicester  
Gallagher Estates Ltd**

SCANNED

**Land North of Gavray Drive, Bicester**

**Environmental Statement  
Volume 2  
Technical Appendix  
December 2004**

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December 2004

SCANNED

**Gavray Drive, Bicester**  
**Gallagher Estates Ltd**

**Volume Two- Technical Appendices**  
**Chapter 1- INTRODUCTION**

**NO APPENDICES**

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**Gallagher Estates Ltd**

**Volume Two- Technical Appendices**  
**Chapter 1- INTRODUCTION**

**NO APPENDICES**

**Gavray Drive, Bicester**  
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**Volume Two- Technical Appendices**  
Chapter 2- APPLICATION SITE & PROJECT  
DESCRIPTION

**NO APPENDICES**

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Chapter 3- POLICY FRAMEWORK &  
DEVELOPMENT OF PROPOSALS

**NO APPENDICES**

**Gavray Drive, Bicester**  
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**Volume Two- Technical Appendices**  
Chapter 4- AGRICULTURAL LAND  
CLASSIFICATION & FARMING

**APPENDIX 1: PARTICLE SIZE ANALYSIS LABORATORY RESULTS**



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SOIL SAMPLES

## ANALYTICAL REPORT

Sample Reference :

TOPSOIL 5

Sample Matrix : SOIL

### Laboratory References

Report Number	69691
Sample Number	85038

Date Received	14-JUN-2004
Date Reported	18-JUN-2004

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

### ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Sand 2.00-0.063mm	47	% w/w
Silt 0.063-0.002mm	23	% w/w
Clay <0.002mm	30	% w/w
Textural Class	Clay Loam	

Released by W Sherratt Principal Scientist Date 18/06/04

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SOIL SAMPLES

## ANALYTICAL REPORT

Sample Reference :

SUBSOIL 5

Sample Matrix : SOIL

### Laboratory References

Report Number 69691

Sample Number 85039

Date Received 14-JUN-2004

Date Reported 18-JUN-2004

The sample submitted was of adequate size to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

### ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Sand 2.00-0.063mm	55	% w/w
Silt 0.063-0.002mm	15	% w/w
Clay <0.002mm	30	% w/w
Textural Class	Sandy Clay/Sandy Clay Loam	

Released by ..... *W Sherratt* .....

Principal Scientist

Date *18/06/04* .....



## APPENDIX 2: DEFINITION OF SOIL WETNESS CLASSES

Wetness Class	Duration of Waterlogging <sup>1</sup>
I	The soil profile is not wet within 70cm depth for more than 30 days in most years <sup>2</sup>
II	This soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.
III	The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for between 31 and 90 days in most years.
IV	The soil profile is wet within 70cm depth for more than 180 days but not within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91- 210 days in most years.
V	The soil profile is wet within 40cm depth for 211 – 335 days in most years.
VI	The soil profile is wet within 40cm depth for more than 335 days in most years.

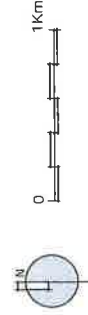
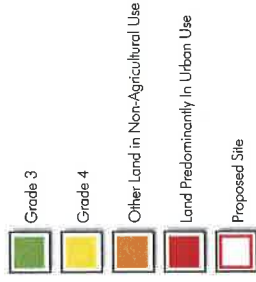
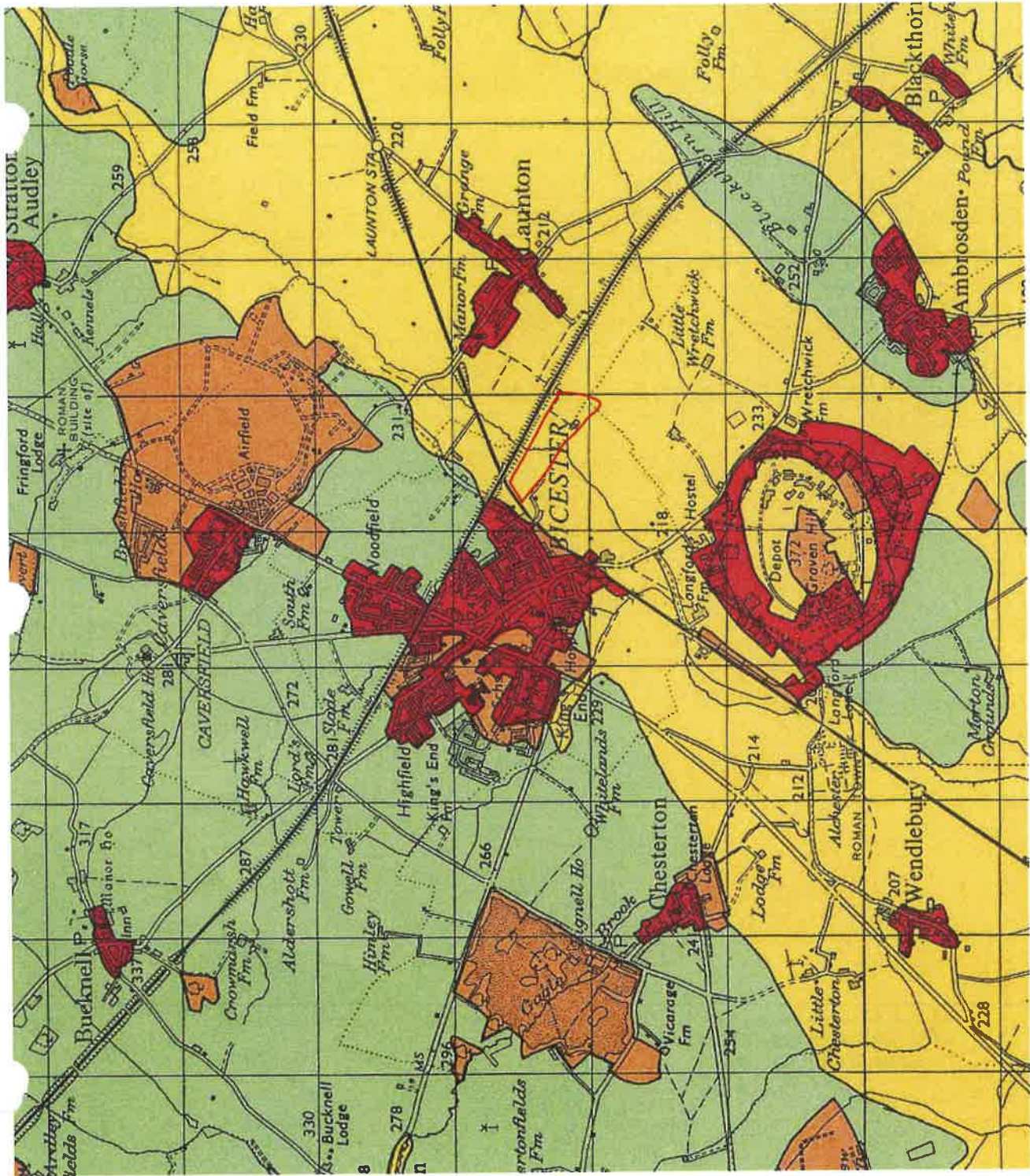
<sup>1</sup> The number of days specified is not necessarily a continuous period.

<sup>2</sup> 'In most years' is defined as more than ten out of twenty years.

**Gavray Drive, Bicester**  
Gallagher Estates Ltd

**Volume Two- Technical Appendices**  
Chapter 4- AGRICULTURAL LAND  
CLASSIFICATION & FARMING

**APPENDIX 3: MAFF PROVISIONAL AGRICULTURAL LAND CLASSIFICATION**



Drawing Title

Client

Project

Scale

Drawing No

Date

Checked

### Appendix 3: MAFF Provisional Agricultural Land Classification Extract From Map Sheet 145

Gallagher Estates Ltd & London and Metropolitan  
Land North of Gavray Drive, Bicester, Oxfordshire

As shown

CPM2172/44a

11/04 RWB/MP

ND



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**Gavray Drive, Bicester**  
Gallagher Estates Ltd

**Volume Two- Technical Appendices**  
Chapter 5- ARBORICULTURAL IMPACT

**Appendix 1: Baseline Arboricultural Report**

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## APPENDIX

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## FIGURE

Findings of Arboricultural Survey (CPM2172/10a 11/04 JB/SH)
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## 1.0 INTRODUCTION AND METHODOLOGY

- 1.1 CPM Environmental Planning and Design Ltd (CPM) has been instructed by Gallagher Estates Ltd & London and Metropolitan to undertake a survey of the trees associated with land adjacent to Gavray Drive, Bicester, Oxfordshire.
- 1.2 The objective of CPM's work is to assess the condition and relative merit of the tree stock with regard to the proposed development of the site, which is allocated in the emerging Cherwell Local Plan 2011.
- 1.3 The survey was carried out on Thursday 6<sup>th</sup> May, in overcast weather conditions. CPM's arboriculturalist is an Affiliate of the Arboricultural Association and a Chartered Landscape Architect. Survey methodology followed the recommendations set out in BS 5837: 1991 (Trees in Relation to Construction) which involves collecting information about:
- (i) Species;
  - (ii) Age Class;
  - (iii) Health;
  - (iv) Estimated Height;
  - (iv) Girth<sup>1</sup>;
  - (vi) Notes about miscellaneous features/notes of interest.
- 1.4 In addition, each individual tree or tree group was attributed one of four quality classes, reflecting the trees overall arboricultural and amenity value in relation to development interests. BS 5837 defines the quality class parameters as follows:
- Quality Class A:* Trees of excellent form and health which contribute significantly to the character of the site and should influence development layout options. Retention is most desirable (Coloured green on plans).
- Quality Class B:* Trees of high value, but of poorer form than Grade A trees and/or suppressed by other trees. Retention is strongly advisable wherever possible. (Coloured blue on plans).
- Quality Class C:* Trees of poor health and/or form. Retention is an option but not essential. Removal may be advantageous to other better specimens nearby. (Coloured brown on plans).
- Quality Class D:* Trees of poor health and/or form. Removal may be advantageous to other better specimens nearby or essential due to the trees potentially dangerous nature in relation to adjacent roads or buildings. (Coloured red on plans).
- 1.5 Findings for the 48 individual trees and 18 groups of trees surveyed are summarised on Figure CPM2172/10a folded into the rear of this report, and within the table contained as Appendix 2. Appendix 1 also contains notes about the criteria measured during the survey.

<sup>1</sup> Information about the girth of trees is conventionally expressed by measuring the diameter at 1.5m above ground level – called 'diameter at breast height (dbh)'.



- 1.6 All trees have been visually inspected from ground level with no climbing, boring or core sampling undertaken. The comments made, particularly in Appendix 2 are based on observable factors present at the time of inspection. All measurements are metric and approximate.
- 1.7 Where management action or tree surgery is recommended in Appendix 2, this is based on maximising the trees safe life expectancy, given its current situation.
- 1.8 As well as providing data about individual trees, Section 2 of this report reviews the character and health of the tree stock overall, and Section 3 summarises the report findings and makes recommendations for future management.

**Limitations**

- 1.9 Due to the changing nature of trees and other site circumstances, this report and any recommendations made are limited to a 5-year period. Any alteration to the site and any development proposals could change the current circumstances and may invalidate this report and any recommendations made.
- 1.10 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer damage under average conditions. Regular inspections can help to identify potential problems before they become acute.
- 1.11 A lack of recommended work does not imply that a tree is safe and likewise it should not be implied that a tree will be made safe following the completion of any recommended work.

## 2.0 FINDINGS OF ARBORICULTURAL APPRAISAL

### General Description of Site and Tree Stock

- 2.1 The survey and area of proposed development is located to the east of Bicester, to the west of the land to the north of the Langford Village residential area. The site currently consists of grassland and scrub, with vegetated bunded boundaries to the east and south, mature trees and hedgerows, and a central vegetated river corridor.
- 2.2 Species Composition: The trees themselves are dominated by Oak and Ash, and the findings of the survey reflect the fact that the site consists largely of neglected agricultural land with typical maturing internal field boundaries. 7 dominant species were recorded in all, in the following proportions:

2.3

Species	% Of Individual Trees And Groups of Trees
Oak	24%
Willow	17%
Ash	14%
Hawthorn / Blackthorn	14%
Elder	11%
Field Maple	11%
Elm	9%

Health: A detailed assessment of tree health is best obtained in the summer months through a combination of ground level examination, climbing and/or core sampling, where necessary, to determine trends in growth rates. Such work fell outside the scope of this arboricultural appraisal. Instead, the CPM survey involved ground level examination of only the external features of the trees.

- 2.4 The health of the tree stock is summarised in the table below:

Condition	% Of Individual Trees And Groups Of Trees
Good	1%
Fair - Good	46%
Fair	42%
Fair - Poor	8%
Poor	3%

- 2.5 A number of specific health problems were noted during the survey, including:
- (i) Competition for Light and Space / Lack of Active Management: A number of the mature hedgerow trees are planted in close proximity to each other. Canopies are tightly bunched, and competition for light, nutrients and space is evident. In the absence of proper management, some of the trees are being suppressed by their more vigorous neighbours.
  - (ii) Age / Disease Related Decline: Several trees within the eastern land parcels of the site and numerous hedgerow Elm trees have died or appear to be in recession. The presence of deadwood material and general dieback in Oak and Ash does not necessarily mean that the trees have a poor life expectancy, as they can take many decades to die, and lifespans can be



extended by judicious pollarding or pruning. However, any emergent Elm will struggle to mature as 'Dutch Elm Disease' takes hold.

- 2.6 Age Class: The age structure of the tree stock is summarised in the following table:

Age Class	% Of Individual Trees And Groups Of Trees
Sapling	12%
Young	28%
Young - Mature	22%
Mature	38%

- 2.7 The bias towards young and mature suggests that the tree stock has generally good life expectancy, and will respond well to some active management.

- 2.8 Quality Class: The quality of the tree stock is summarised in the following table:

Quality Class	% Of Individual Trees And Groups Of Trees
A	9%
B	26%
C	64%
D	1%

- 2.9 This distribution reflects the moderate quality condition of the tree stock, although some of the mature Oak trees warrant a Quality Class A classification. The moderate quality of the trees is largely due to the maturity class of the hedgerow vegetation and the presence of so much dead Elm. Poor vigour, competition for light and space and overall quality could be improved over time through active management and a replanting strategy.

#### **Planning Considerations**

- 2.10 Following contact with Cherwell District Council, CPM has confirmation that part of the site is covered by a Tree Preservation Order, reference: TPO No. 17 (dated 5<sup>th</sup> September 1990). The TPO includes a schedule of 29 individual trees and 4 groups of trees, all to the east of the river corridor (see Appendix 3).

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**3.0 SUMMARY OF KEY ISSUES AND RECOMMENDATIONS FOR FUTURE  
MANAGEMENT**

**Recommendations and Issues arising from Survey Findings**

- 3.1 The findings of CPM's arboricultural survey reveal that the tree stock upon the site consists largely of young-mature to mature Oak and Ash species, of moderate to good quality. The most significant health problems relate to competition for light and space, need for active management and the presence of Dutch Elm Disease.

**Recommendations for the trees surveyed are summarised below:**

***New Tree Planting / Management Works***

- 3.2 CPM recommends that where tree stock cannot be retained, a programme of replacement tree planting should be formulated in conjunction with the overall site development plan. Native plant selection should be encouraged, from a local source where possible. The separate ecological appraisal makes further recommendations for new native planting and management strategies.
- 3.3 A number of trees require minor arboricultural work, including the removal of deadwood material and some selective pruning (30% selective thinning). Any deadwood material should be retained on site / stacked within the wildlife corridors for the benefits of the local ecology.

***Proposed Development / Trees in Relation to Construction***

- 3.4 The adequate protection of retained trees on development sites is of paramount importance if they are to be retained successfully. The protection measures specified below should be implemented prior to any development works commencing and must be maintained throughout the construction period.
- 3.5 The inevitable stress caused by development near to existing trees can, if provision for adequate protection is not made, severely damage the trees or even result in their death. Although the trees appear healthy during and on completion of the development, the full effects may not become apparent for up to five or more years.

**Tree Protection Strategy**

***Roots***

- 3.6 The roots of trees are the most susceptible part of the tree to damage. Temporary 1.5 metre chestnut pale and wire fencing on a scaffold framework will be erected around the trees and areas of planting to be retained. This is to exclude all vehicular and pedestrian traffic and prevent the storage of materials within the crown spread of the trees.
- 3.7 Lines of protective fencing should be agreed with the local planning authority prior to development commencing on site. It is also important to ensure that all proposed fencing be erected in accordance with BS 5837 : Trees in Relation to Construction (1991).
- 3.8 As roots can be damaged by the direct toxicity of some materials, care will be taken as to the nature of any materials stored near the protective fencing. All excavations shall be outside the protective fencing with the area within remaining totally undisturbed.
- 3.9 Protective fencing shall be erected prior to any materials or machinery being brought to the site and before construction proceeds. It shall be maintained intact

throughout the construction period. Notices shall be placed on each side of each fenced off area stating 'Protected Area – no storage or operations within fenced area'.

***Trunks, Stems & Branches***

- 3.10 Essentially the above ground parts of a tree, being more visible, are more easily protected. Fencing erected to protect the roots should in most cases provide sufficient protection for the above ground parts. Should it be necessary to prune the branches to accommodate development or construction, this shall be on the advice of an arboriculturalist and in accordance with the recommendations of BS 3998 (1989).

***Material Storage on Site***

- 3.11 No materials shall be stored in the protected areas.
- 3.12 No oil, diesel or solvents shall be stored any closer than 5 metres from the edge of the canopy of any trees.
- 3.13 No cement, concrete or other lime-based materials either loose or in bags shall be stored under the canopies of any trees.

***Vehicle & Pedestrian Traffic through Protected Areas***

- 3.14 No vehicle or pedestrian traffic shall be allowed through protected areas.

***Concrete / Mortar / Plaster Mixing on Site***

- 3.15 No mixing shall take place in protected areas or under the canopies of any trees.

***Telephone / Electric & Other Cables / Notice Boards***

- 3.16 None shall be fixed to any part of any tree.

***Fires***

- 3.17 None shall be allowed on site.

**Land North of Gavray Drive, Bicester,  
Oxfordshire**

***Baseline Arboricultural Appraisal***  
Gallagher Estates Ltd & London and  
Metropolitan

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**APPENDIX 1      REFERENCES NOTES FOR INTERPRETING**

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**APPENDIX 1      REFERENCES NOTES FOR INTERPRETING**

**Recorded Factors**

- A1.1      Age Class: Trees are assigned to one of four age classes (young, early mature, mature, over mature) according to species.
- A1.2      Height and Crown Spread: All dimensions are given in metres and are approximate.
- A1.3      Girth: Approximate measurements of trunk girth taken at 1.5 metres above ground level (diameter at breast height or dbh).
- A1.4      Quality Class: Trees surveyed have been divided into quality classes as follows.
- A1.5      Quality Class A+ and A: Trees which should influence development layout options and whose retention is most desirable. These are the best trees on site. Specifically, this includes:
- (i)      Vigorous healthy trees, of good form, and in harmony with proposed space and structures;
  - (ii)      Healthy young trees of good form, potentially in harmony with proposed development;
  - (iii)      Trees screening or softening the effect of existing structures in the near vicinity, or of particular visual importance to the locality;
  - (iv)      Trees of particular historical, commemorative or other value, or good specimens of rare or unusual species.
- A1.6      Quality Class B: Trees of some value within the context of the site whose retention is desirable where feasible. Specifically this includes:
- (i)      Trees that might be included in the high category, but because of their numbers or slightly impaired condition, are downgraded in favour of the best individuals;
  - (ii)      Immature trees, with potential to develop into the high category.
- A1.7      Quality Class C: Trees whose location should not have a significant influence on development layout and whose retention is optional. This includes:
- (i)      Trees in adequate condition, or which can be retained with minimal tree surgery, but are not worthy for inclusion in the high or moderate categories;
  - (ii)      Immature trees, or trees of no particular merit.
- A1.8      Quality Class D: Trees requiring removal:
- (i)      Dead or structurally dangerous trees;
  - (ii)      Trees with a visibly insecure roothold which can reasonably be expected to be unsafe;

- (iii) Trees with significant fungal decay at base or on main bole likely to be affecting tree stability;
  - (iv) Trees with a cavity or cavities of significance to safety;
  - (v) Trees that will become dangerous after removal of other trees for the reasons given in items 1 to 4.
- A1.9 Notes about the condition of the tree and its relationship with its neighbours are provided. Note the following:
- (i) Root and butt decay pathogens and structural defects; Unless otherwise stated with each individual entry, there were no external signs that root and butt decay pathogens or structural defects were present at the time the inspection was undertaken;
  - (ii) Canopy density/leaf size/colouration; unless otherwise stated with each individual entry, the trees canopy density is typical of the species.

**APPENDIX 2 TREE SURVEY**

## Site Visit Notes for Tree Survey CPM 2172, Gavray Drive, Bicester

Tree Group No	Species	Quality Class	Age Class	Height (m)	DBH (cm)	Health	Comments
T1	Oak	B	Mature	12m	95cm	Fair / Good	Tree forms part of hedgerow alignment, appears generally vigorous with rounded canopy, and evidence of management and limb removal over time. Slight southerly canopy bias with a spread of approximately 10m to the south and approximately 7m to the north.
T2	Oak	B-	Mature	14m	75cm	Fair	Slightly scruffy in form which although upright and relatively vigorous, contains some evidence of dieback and conflict with adjacent T3. Again limb removal evident suggesting that management has taken place. Again slight canopy bias towards the south with overhang in the field of approximately 8m to the south and approximately 7m to the north.
T3	Oak	B	Mature	14m	90cm	Fair	A large tree within the group split to form two main leaders at approximately 4m. Slightly thinner canopy evident with some dead material in lower branches, evidence of pruning wounds and removal of a major limb and also a weeping pruning wound at approximately 6m, which may be associated with bat occupancy. Some minor dead wood removal may be required over time otherwise fine. Tree extends into the field to the north and south by approximately 6½ to 7m.
T4	Oak	B-	Mature	12m	70cm	Fair/ Good	Probably the weakest tree in this hedgerow group, with a rounded canopy and a significant number of crossing laterals, die back and a major dead limb within the lower canopy. Again some signs of management and limb removal over time; however, with some removal of dead wood material and ongoing management this tree could be retained within any development proposal. Tree has a spread to the north and south of approximately 6m.



T5	Oak	B	Mature	14m	75cm	Fair/ Good	Upright tree with rounded canopy, with slight bias towards the southeast. Tree appears relatively vigorous with some dead wood material in lower canopy and evidence of management and limb removal over the past. Some dead wood material required, otherwise fine. Canopy extends to the north and south by approximately 6m.
T6	Oak	B	Mature	13m	80cm	Fair/ Good	More isolated specimen with good vigorous rounded canopy, however contains a number of crossing laterals and some dead wood material. Some management required, otherwise fine. Canopy has slight bias towards the south, extending by approximately 6½m, and approximately 6m to the north.
G1	Oak, emergent Elm some Elder with a central under storey area dominated by Hawthorn and Blackthorn.	C+	Sapling - Young Mature	2 - 4m	n/a	Fair/ Good	The hedgerow beneath the line of six mature oak trees consists largely of emerging blackthorn and hawthorn with some older hawthorn and elder species also present. This should be retained and managed where appropriate.
T7	Oak	D	Mature	12m	80cm	Poor	This is a stag headed dieing oak tree at the centre of the hedgerow group. Significant dead wood present, bark loss and evidence of decay all suggest that this tree has a limited life expectancy although maybe important as an ecological resource. Some dead elm also surrounds the tree, which was probably once more significant within the under-storey belt.
G2	Oak, emergent Elm some Elder with a central under storey area dominated by brambles.	C+	Sapling - Young Mature	2 - 4m	n/a	Fair/ Good	This hedgerow also consists largely of emerging blackthorn and hawthorn with some older hawthorn and elder species also present. This should be retained and managed where appropriate.

T8	Oak	C+	Young	6m	28cm	Fair/ Good	One of two smaller hedgerow trees planted in close proximity, with partly punched rounded canopies. Some evidence of decay and dead wood material in lower canopy and lateral union; however, with some arboricultural work could be retained as part of hedgerow group.
T9	Oak	C+	Young	6m	28cm	Fair/ Good	One of two smaller hedgerow trees planted in close proximity, with partly punched rounded canopies. Some evidence of decay and dead wood material in lower canopy and lateral union, however with some arboricultural work could be retained as part of hedgerow group.
T10	Oak	C-	Young	4½m	6cm	Fair/ Good	An upright newly planted tree with recently cut tie and stake. Tree has slight bias towards the west, and forms part of a linear belt of six planted trees, of only which two survive. The tree has limited amenity value on its own, could possible translocate it.
T11	Field Maple	C-	Young	4m	4cm	Fair	An upright tree planted as part of linear group with recently cut stake and ties. Again tree appears vigorous with relatively good form; however, has little meanatory value in isolation.
T12	Oak	A-	Mature	15m	98cm	Fair/ Good	A large upright oak tree with vigorous rounded canopy, some evidence of dead wood material in lower canopy and evidence of pruning wounds, otherwise fine. Some dead wood material to be removed and ongoing management for this fine tree. Tree canopy has slight bias towards the south extending into the field by approximately 8m, whilst extending to the north by approximately 6½m.
T13	Oak	B-	Mature	12m	70cm	Fair	Slightly smaller hedgerow tree with good rounded canopy, although significant number of crossing laterals and some signs of die back in the lower canopy. With some minor work tree should have good safe life expectancy. Extends into field to the north and south by approximately 5m.

T14	Oak	B+	Mature	14m	85cm	Fair/ Good	An upright oak tree with good rounded canopy and good vigour. Some evidence of die back and branch loss in the lower canopy, which may present further decay at the main lateral union. Some minor work may be required however this tree should be retained if possible. Relatively equal canopy spread reaching approximately 7½m on all sides.
G3	Hedgerow Group. Species include Elder, Hawthorn some Blackthorn some emerging dieing Elm and some young Oak	B-	Sapling - Young Mature	2 - 4½m	n/a	Fair/ Good	This is quite a dense vigorous hedgerow belt with a significant proportion of emergent thorn species. Some thinning may be required and an introduction of a wider range of species, otherwise should be retained to provide strong landscape framework.
T15	Ash	C-	Mature	13½m	75cm	Poor	An upright Ash tree as part of hedgerow group formed by three principle leaders. Tree has strong bias towards the south east, with significant decay evident in two of the lower laterals and significant die back within the mid and lower canopies. Tree may respond to some arboricultural work and may have some ecological potential for its retention. Tree extends approximately 6½m to the south and 5½m to the north.
G4	Species include emergent dieing Elm, Elder, Hawthorn, Blackthorn some Field Maple and an under storey of dense brambles	C	Sapling - Young Mature	2 - 6m	n/a	Fair/ Good	Another relatively strong hedgerow belt with a slightly more diverse mix of species, although contains a significant proportion of dead or dieing Elm. Again its retention would create strong landscape framework.
G5	Species include Elder, Hawthorn,	C-	Sapling - Young Mature	2 - 6m	n/a	Fair/ Poor	Slightly weaker hedgerow group in comparison to G4, although same diversity of species including the dead and dieing Elm. Would require management and thickening if retained.

T16	Blackthorn, Field Maple some dead and die Elm Ash	C	Young Mature	9½m	Multi stem ranging from 12cm upto 22cm	Fair/ Good	An upright Ash tree formed from five to six main leaders. Shows some evidence of dieback and dead wood material in basal area, otherwise fine. Has an overall spread of approximately 6m. May require some attention and thinning of some of the ground Elm brambles to ensure safe life expectancy and to inspect the basal area in more detail.
T17	Hawthorn	C-	Young Mature	6½m	Multi stem	Fair/ Good	A tall upright Hawthorn and bramble mass located at the boundary of the site of the bottom of the railway embankment. Some dead wood material evident and requires some thinning recommended if retained.
	Species include Hawthorn, Blackthorn, Elder and Bramble under stories with larger tree specimens including Ash and Oak, some Field Maple also present.	A	Sapling - Mature	3m - 17m	Multi Stem upto 80cm	Fair/ Good	A strong hedgerow belt which is planted either side of a central 'green lane'. The principal mature species consist of Oak and Ash with the larger Oak trees with round high canopies clearly defining the belt at regular intervals. Some die back evident and some signs of management, otherwise belt should be retained, managed and protected as part of any development response. The larger trees extend approximately 8½m into the adjoining fields both north and south of the hedgerow belt.
G7	Species including Elm, Ash some Willow, Hawthorn and Blackthorn and emergent dead and dieing Elm.	C-	Young - Young Mature	2- 6½m	Multi Stem Upto 20cm	Fair/ Good	Slightly weaker internal hedgerow belt containing few mature trees (only two significant Ash trees) and dominated by dead Elm. Total width approximately 6 - 7m. Also significant brambles running adjacent to hedgerow belt.

T18	Ash	C-	Young Mature	7m	22cm	Fair/ Poor	Weak specimen with slight bias towards northeast, significant die back in mid and lower canopy and some open canker wounds visible. Suggest removal to favour surround vegetation.
T19	Ash	A-	Mature	16m	78cm	Fair/ Good	A large upright Ash tree formed by one main central leader with vigorous rounded canopy, which has slight bias towards the south. Several large canker wounds and some minor die back in mid canopy, otherwise fine. Tree extends approximately 7m either side into field.
T20	Ash	C+	Mature	18m	65cm	Fair	Tall upright tree formed by two main leaders breaking at 7m. Very linear form with relatively weak canopy and evidence of dieback in mid and lower canopy. Could be retained with some minor arboricultural work.
G8	Species include dead and dieing Elm, Blackthorn, Hawthorn with under storey of brambles.	C	Young - Sapling	2 - 5½m	n/a	Fair	Typical hedgerow for this part of site, relatively dense (approximately 7m in width), with also dead Elm present and adjacent brambles.
G9	Species include dead and dieing Elm, Blackthorn, Hawthorn with under storey of brambles.	C-	Young - Sapling	2 - 5½m	n/a	Fair	Typical hedgerow of this part of site, relatively dense (approximately 7m in width), with also dead Elm present and adjacent brambles. Contains significantly more dead Elm.
G10	Species include Hawthorn some Blackthorn some small Willow associated with the central ditch	C	Young	2 - 6m	n/a	Fair	Hedgerow associated with ditch approximately 5m in width, contains more individual clumpy species of Hawthorn with no evidence of dead or dieing Elm, unlike surrounding hedgerows.
T21	Oak	B-	Young	9m	45cm	Fair/ Good	A young hedgerow tree upright with neat rounded canopy. Appears relatively vigorous with some dead wood material and dieback in lower canopy, otherwise fine. Total canopy spread approximately 13m.

T22	Oak	B+	Mature	16m	58cm	Fair/ Good	A larger upright hedgerow tree (one of only two in this belt), with well-formed vigorous canopy. Some minor die back in lower canopy, otherwise appears fine. Approximate canopy diameter 15m.
G11	Species include Hawthorn some Blackthorn some limited Field Maple, Ash, Elder, dead and dieing Elm with an under storey of brambles, with planting becoming weaker towards the west	C	Young	2 - 5½m	n/a	Fair	Again similar in form to surrounding hedgerows, although becomes progressively weaker towards the west with increasing amounts of bramble and dead Elm present. To the east slightly denser with three of four slightly more mature specimen trees including Ash and Oak.
T23	Oak	C+	Young - Mature Mature	8½m	60cm	Fair	Moderately sized tree amongst the G11 hedgerow. Rounded yet scruffy canopy formed by contaughted leaders. Appears relatively vigorous with some minor die back. Slight northerly bias within canopy extending approximately 7m to the north and 5m to the south.
T24	Ash	C-	Young Mature	6½m	40cm	Fair/ Poor	A scruffy hedgerow tree which is ivy clad to 5m, contains significant dead wood and looks like has lost a main leader at some stage. Canopy does appear vigorous and may respond well to pruning. Total canopy spread approximately 7m.
T25	Oak	A-	Mature	16m	98cm	Fair	Part of the most dominant group of mature trees on the site, this end tree has good rounded form with slight bias towards the east due to conflict with adjacent T26. Some die back in mid and lower canopy evident and also significant fruiting fungal bodies in the basal area. Evidence of the fungal growth and die back suggests the tree is in recession and work maybe required to ensure its safe life expectancy and inclusion within any developed scheme. Total

T26	Oak	A	Mature	17m	1.15m	Fair/ Good	canopy width is approximately 11m. Fine specimen with good rounded canopy and large sprawling branches. Some die back evident and dead wood material in mid and lower canopy including the fracture of one main leader. Some minor work to remove dead wood material but otherwise probably the finest tree upon the site. Canopy spread in excess of 15m.
T27	Oak	C+	Mature	9m	60cm	Fair	Tree has slight bias to the west and canopy is compromised by adjacent T26. Some stag heading and die back evident, may respond well to pruning.
T28	Oak	B-	Mature	8m	55cm	Fair/ Good	Upright small tree with rounded canopy and relatively good form. Again some minor die back in the mid and lower canopy which may require removal to make safe, otherwise fine.
T29	Oak	B+	Mature	16m	75cm	Fair	Again another large Oak tree with rounded canopy although slight bias towards the southwest. More significant die back and dead laterals within the mid and lower canopy, may respond well to active pruning and removal of dead wood material. Southern extent of canopy extends approximately 8m, northern extends approximately 7m.
T30	Oak	C+	Mature	8m	50cm	Fair	Smaller upright tree with rounded canopy, although significant die back and dead wood material in lower canopy, a major limb loss wound at approximately 4m exposing to decay. Some minor arboricultural work required to remove dead wood, otherwise fine. Canopy spread exceeds 10m.
T31	Willow	B+	Mature	14m	Multi Stem	Fair/ Good	A large sprawling willow tree within this wet ditch appears vigorous formed by strong central leaders (dbh probably in excess of 120cm). Some dead wood around base, otherwise fine. Total canopy spread in excess of 14m.
T32	Ash	C-	Young	7m	28cm	Fair	Rather shrubby single species at the end of this tree belt, canopy bias slightly to the west with moderate die back and dead wood material in the lower canopy. May respond to pruning, otherwise fine.
G12	Species include Hawthorn some Blackthorn some limited	C	Young	2 - 5 1/2m	n/a	Fair	Again similar hedgerow to surrounding types, although becomes progressively weaker towards the west with increasing amounts of bramble and dead Elm present. To the east slightly denser with three of four slightly more mature specimen trees including Ash

	Field Maple, Ash, Elder, dead and dieing Elm with an under storey of brambles, with planting becoming weaker towards the west						and Oak. Fewer dead Elm and hedgerow generally gets weaker to the west.
G13	Elder, Hawthorn, Blackthorn with some bramble under storey	C	Sapling Young	2 – 4m		Fair	A fragmented hedgerow section that does not extend the full length of the tree belt that grows in association with a wet ditch.
T33	Ash	B-	Mature	16m	88cm	Fair	Large upright Ash tree adjacent to the river, sprawling canopy with significant dead wood within the middle and lower sections, and evidence of decay of main trunk. May require further arboricultural investigation to determine safe life expectancy. Canopy spread exceeds 15m.
T34	Willow	B	Mature	13m	70cm	Fair	Sprawling riverside Willow tree with some dead wood material in lower canopy. Tree also ivy clad to approximately 4m. Slight bias towards the east, otherwise fine.
T35	Willow	B	Mature	9m	75cm	Fair/ Good	Another pollarded riverside Willow with sprawling healthy vigorous canopy. Again some minor dead wood in lower canopy and ivy clad to approximately 4m, otherwise fine.
T36	Willow	B+	Mature	15m	75cm	Fair/ Good	Larger upright Willow tree formed by three to four principle leaders. Appears vigorous with strong growth for this time of year, some minor dead wood material present and evidence of a loss of another significant tree in its close proximity, maybe from the same basal union. This may represent future weakness in terms of fungal attack. Total spread of canopy exceeds 12m.
G14	Willow and Hawthorn	C	Young	4 – 6m	10 – 12cm	Fair/ Good	Group of small riverside trees, of moderate quality.



T37	Ash	C-	Young	7m	28cm	Fair	Rather scrubby single species at the end of this tree belt, canopy bias slightly to the west with moderate die back and dead wood material in the lower canopy. May respond to pruning, otherwise fine.
T38	Oak	C+	Mature	8m	50cm	Fair	Smaller upright tree with rounded canopy, although significant die back and dead wood material in lower canopy, a major limb loss wound at approximately 4m exposing to decay. Some minor arboricultural work required to remove dead wood, otherwise fine. Canopy spread exceeds 10m.
T39	Willow	B	Mature	13m	70cm	Fair/ Good	Sprawling riverside Willow tree with some dead wood material in lower canopy. Tree also ivy clad to approximately 4m. Some dead wood, otherwise fine and slight bias towards the east.
T40		C	Young Mature	9m	Multi Stem	Fair	Waterside tree with strong bias towards the northeast and ivy clad to approximately 6m. Some dead wood also present.
T41	Willow	B-	Mature	7m	Multi Stem (80cm +)	Fair	Another riverside pollarded Willow with sprawling vigorous canopy and ivy clad. Some evidence of dead wood in lower canopy.
G15	Elder, Hawthorn, Blackthorn with some bramble under storey	C	Sapling Young	2 – 4m	n/a	Fair	A fragmented hedgerow section that does not extend the full length of the tree belt, and grows in association with a wet ditch.
T42	Willow	B-	Mature	7m	Multi Stem (80cm +)	Fair	Another riverside pollarded Willow with sprawling vigorous canopy and ivy clad. Some evidence of dead wood in lower canopy.
T43	Field Maple	C+	Young	6m	Multi Stem	Fair/ Good	Young tree with relatively vigorous rounded canopy, although slightly suppressed by surrounding trees. Some dead wood in lower canopy, otherwise fine.
T44	Ash	C-	Young	6m	Multi Stem	Good	Upright tree within area of dense waterside vegetation. Moderate form with some evidence of dieback and dead wood in lower canopy. Some active management required improving overall condition.

G16	Willow (x4)	B	Mature	7m	75 - 80cm	Fair	4 large pollarded trees adjacent to the river corridor, with sprawling canopies. Some evidence of decay at pollard unions and crossing laterals, otherwise good amenity presence.
G17	Species including Elm, Ash some Willow, Hawthorn and Blackthorn.	C-	Young - Young Mature	2- 6½m	Multi Stem Upto 20cm	Fair/ Good	Internal hedgerow belt containing few mature trees (only one significant Willow tree). Total width approximately 6 – 7m. Also significant brambles running adjacent to hedgerow belt.
T45	Ash	C-	Young Mature	10m	25cm	Fair	Young tree suppressed by adjacent vegetation, showing signs of dieback in the lower canopy. Active management recommended to improve form and condition.
T46	Willow	C-	Young Mature	12m	Multi Stem	Fair/ Poor	Poor vigour associated with competition for space and light. Evidence of some deadwood in mid and lower canopy.
T47	Willow	C+	Young Mature	11m	Multi Stem	Fair	Better vigour and more rounded form than adjacent T46.
T48	Willow	C-	Young Mature	13m	Multi Stem	Fair/ Poor	Poor vigour associated with competition for space and light. Evidence of some deadwood in mid and lower canopy and fallen laterals beneath the canopy.
G18	Species including Elm, Ash some Willow, Hawthorn and Blackthorn.	C+	Young Mature	3 - 6m	n/a	Fair/ Good	Typical hedgerow of the site, relatively low and dense with some dead Elm present and adjacent brambles.

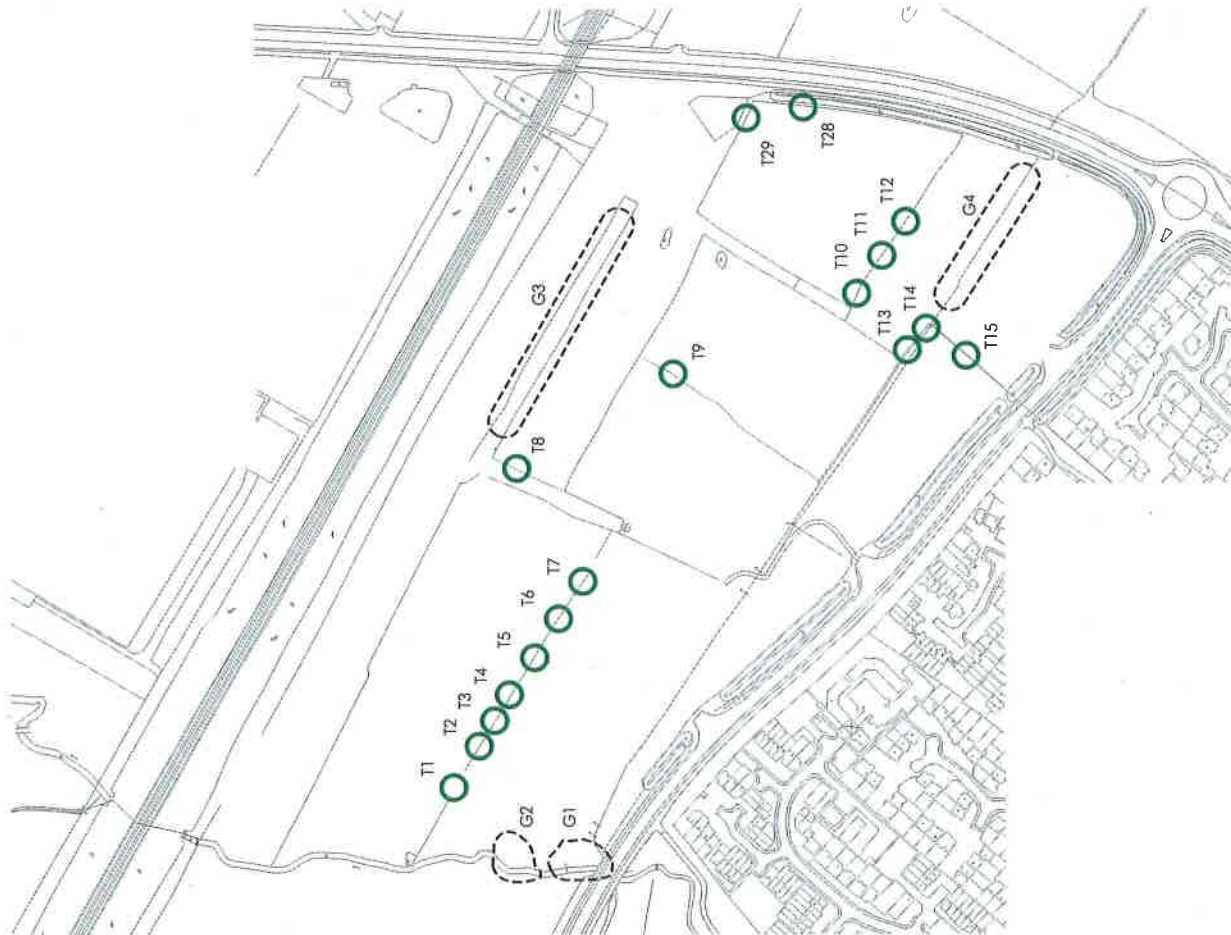
**Land North of Gavray Drive, Bicester,  
Oxfordshire**

***Baseline Arboricultural Appraisal***  
**Gallagher Estates Ltd & London and  
Metropolitan**

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**APPENDIX 3 TREE PRESERVATION ORDER DETAILS**

(CPM2172/47a 11/04 JB/LS)



Tree Preservation Order No 17/90

# Tree Preservation Order Details

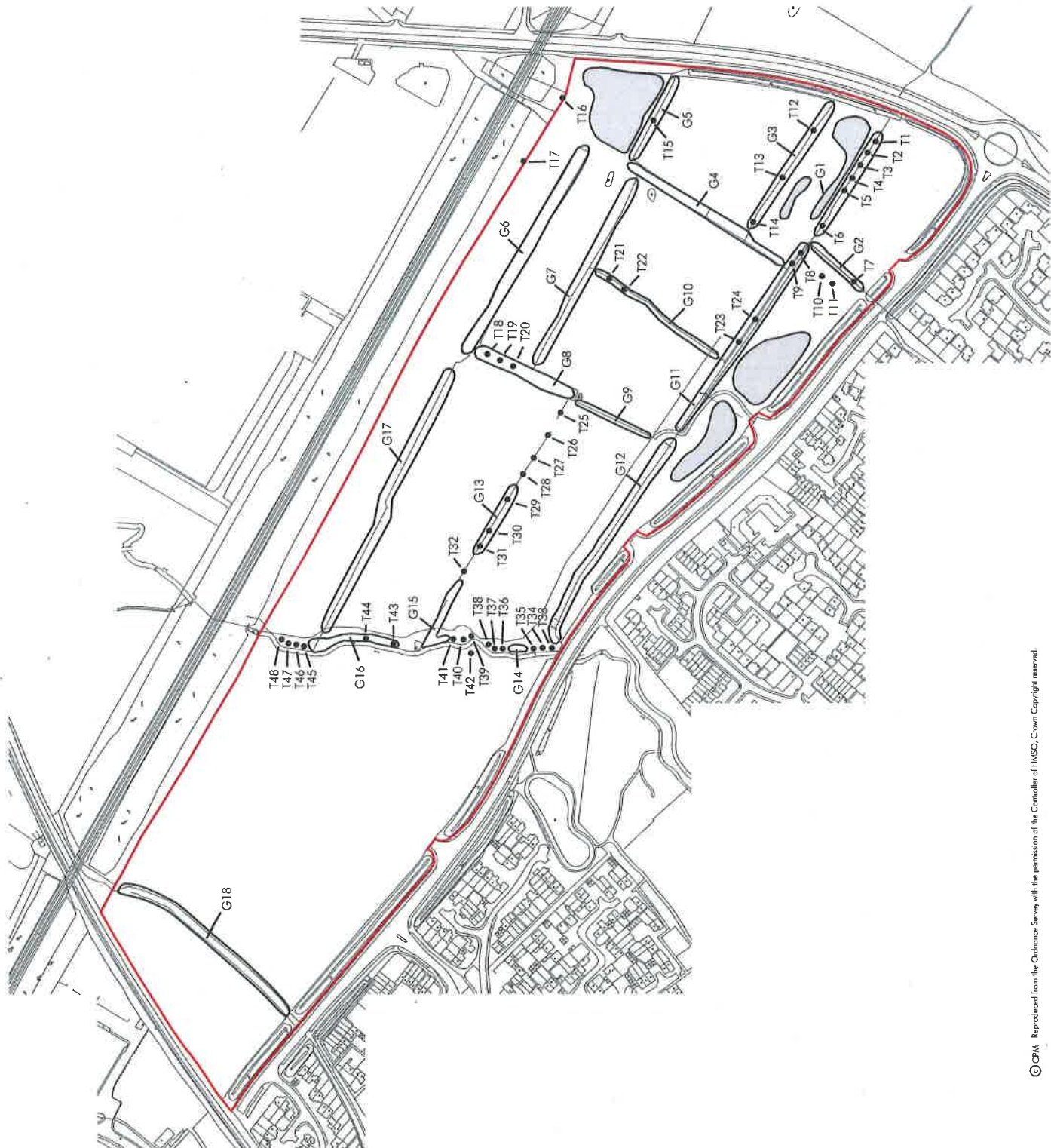
Gallagher Estates Ltd & London and Metropolitan  
Land North of Gavray Drive, Bicester, Oxfordshire





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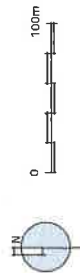
Alkemon Barrie, Colin St Aldwyns, Cirencester, Gloucestershire GL7 5AW  
Tel: 01285 750555 Fax: 01285 750636 Email: info@cpm.co.uk



**FIGURE      Findings of Arboricultural Survey**  
(CPM2172/10a 11/04 JB/SH)



-  Study area
-  Individual tree (approximate location)
-  Tree group / hedgerow group (approximate extent)
-  Scrub / vegetation not surveyed (see CPM ecology survey)



## Findings of Arboricultural Survey

Gallagher Estates Ltd & London and  
Metropolitan

Land North of Gavray Drive, Bicester, Oxfordshire

Drawing Title  
Client  
Project  
Scale  
Drawing No  
Date  
Checked

As shown

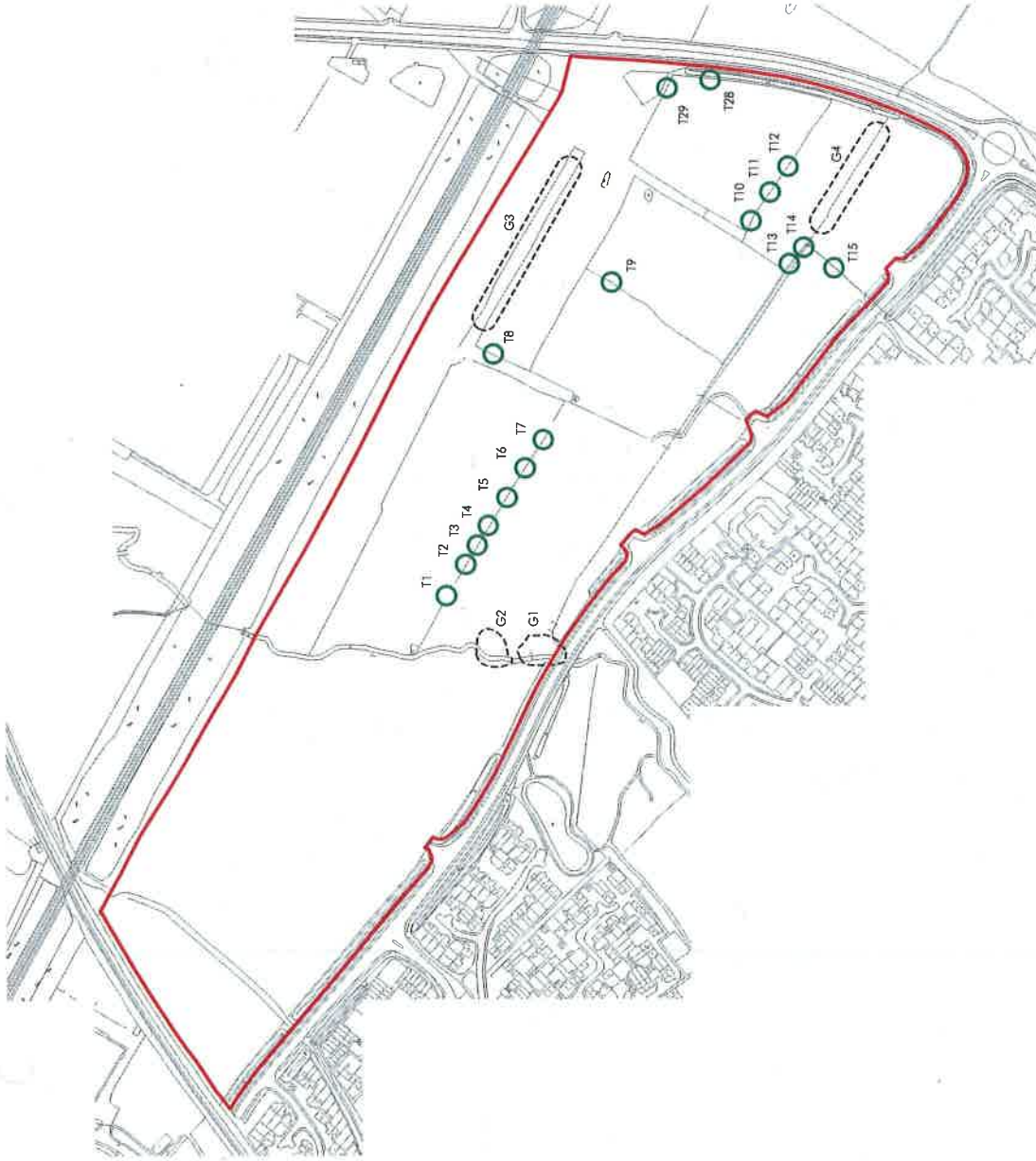
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11/04 JB/SH



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Tel: 01285 750555 Fax: 01285 750536 Email: info@cpm-uk.co.uk





Application area



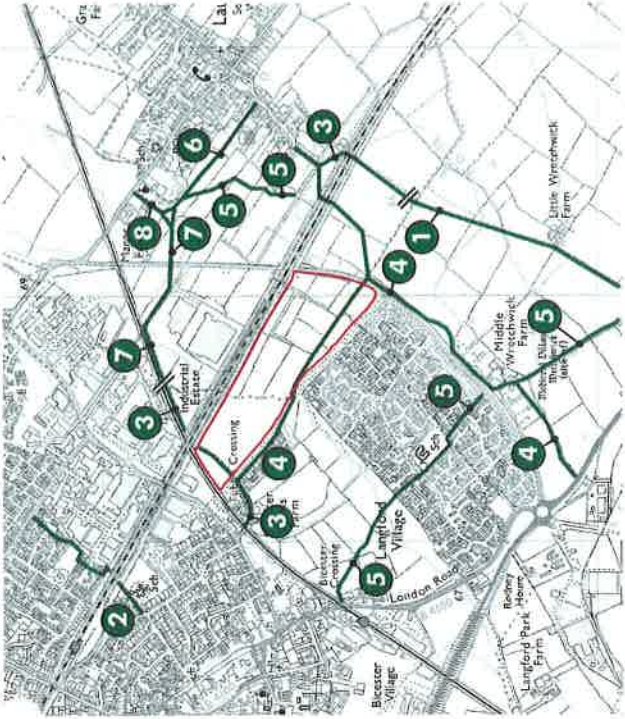
Tree Preservation Order No 17/90



0 250m

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Public Right of Way - footpath



Right of Way changed status



0 1km

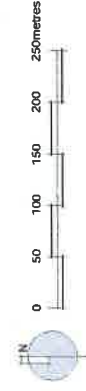
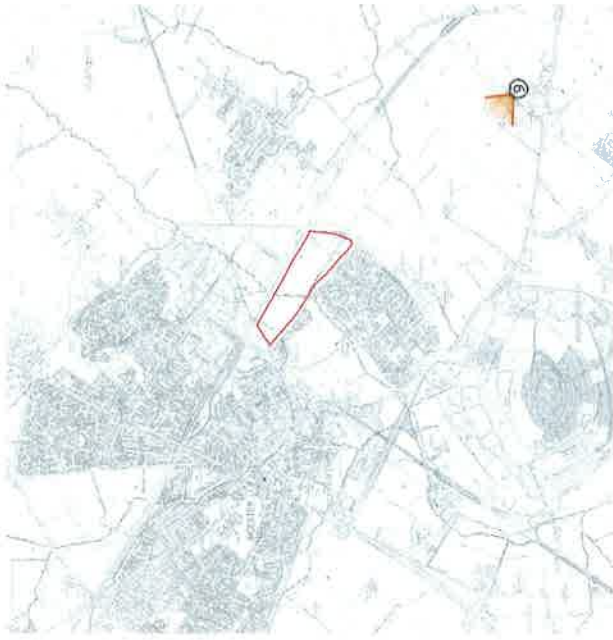
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Project	Scale
As shown	Drawing No
CPM2172/15a	Date
1/04 SC/SH	Checked



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Land North of Gavray Drive, Bicester, Oxfordshire

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## Photoviewpoint Location Plan

Gallagher Estates Ltd & London and Metropolitan

Land North of Gavray Drive, Bicester, Oxfordshire

Scale

1:5000

Drawing No

CPM2172/16a

Date

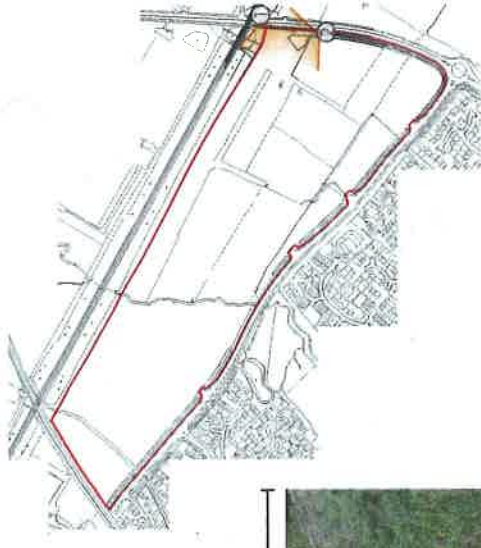
11/04 SC/JTF

Checked



Alconson Barrs, Colin St Aldwys, Cirencester  
Tel: 01285 750555 Fax: 01285 750638 E  
cpm@cpm.co.uk





**Photoviewpoint 1:** From the Bicester Eastern Bypass views are available south west across the site, though these are interrupted and filtered by existing dense



**Photoviewpoint 2:** Looking in a north westerly direction from Bicester Eastern Bypass, glimpsed views available to the application area.

Approximate extent of application area



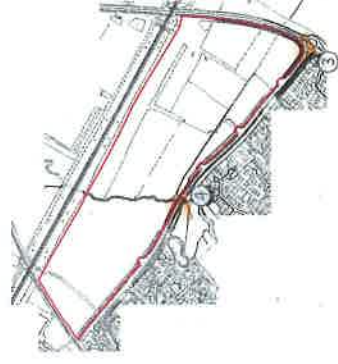
**Photoviewpoint 3:** From the eastern end of Gavray Drive, looking northwards towards the site, the dense boundary vegetation is evident.

Three storey residential dwellings associated with Bicester Fields Farm

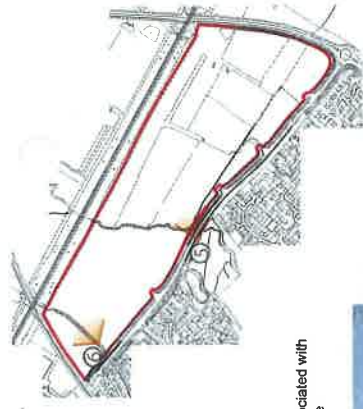
Approximate extent of application area



**Photoviewpoint 4:** From the bridge crossing the Langford Brook, looking west along Gavray Drive, clear views are available across the western portion of the application area.







The Sites southern boundary

Glimpsed partial views to the surface of the site are available to users of Gavray Drive

Bridge crossing Langford Brook

Residential dwellings associated with Langford Village



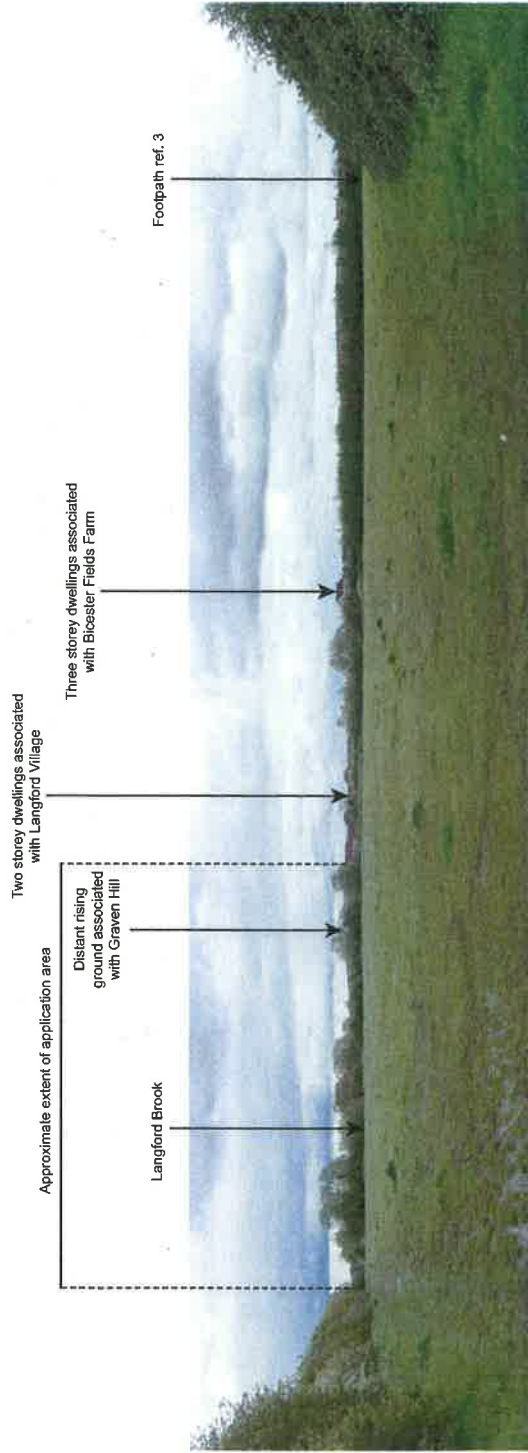
**Photoviewpoint 5:** From midway along Gavray Drive, dense strips of vegetation filter views to/from site. The residential dwellings overlooking the linear park have limited/filtered views of the application area.

Footpath ref. 3

Warehouse block associated with Bicester Park



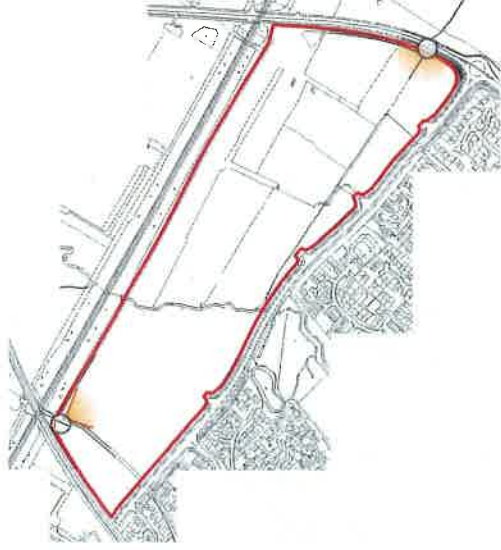
**Photoviewpoint 6:** Looking northeast from within the application area, on footpath ref. 3, large industrial blocks exist adjacent to the site, to the north and west.



**Photoviewpoint 7:** From the northwest corner of the site from footpath ref. 3, looking towards Gavray Drive, views to residential dwellings are available, though limited/filtered.



**Photoviewpoint 8:** Looking west upon entering the site on footpath ref. 4, hedgerows filter views in all directions.





Approximate extent  
of application area

Warehouse block associated  
with Bicester Park

Bicester Town



Photoviewpoint 9: Distant views are available from Blackthorn Hill from bridleway ref. 9.





Application area



### Site Location

Galagher Estates Ltd & London and Metropolitan

Land North of Gavray Drive, Bicester,  
Oxfordshire

As shown

CPM2172/11a

11/04 SC/KK

*[Signature]*

Drawing Title

Client

Project

Scale

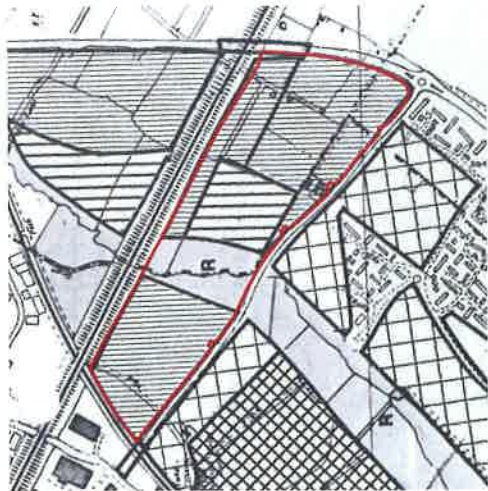
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Date

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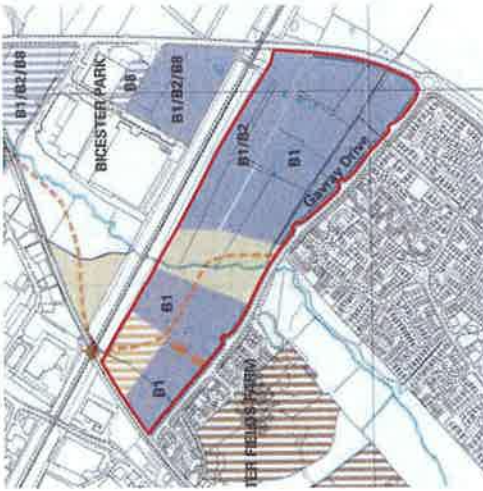


# Cherwell Local Plan, Adopted November 1996



- Application area
- Committed Site for Employment Generating Development
- Proposed Site for Employment Generating Development
- Recreational Purposes

# Cherwell Local Plan 2011, Deposit Draft, February 2001

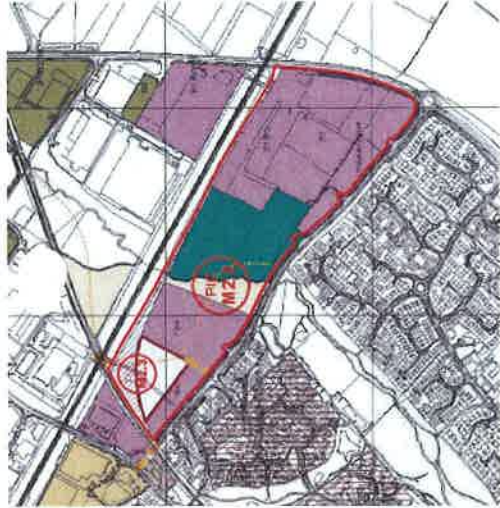


- Proposed Site for Employment Generating Development
- Proposed Recreational Use
- Strategic Footpath Cycleway Link
- Proposed Multi Modal Transport Interchange
- Proposed New or Improved Road

# Cherwell Local Plan 2011, Revised Deposit Draft, September 2002



- Proposed Housing Site
- The reference number(s) shown on this map refer to changes that have been made to the Deposit Draft Cherwell Local Plan 2011: February 2001
- Proposed Site for Community Care Home
- Proposed Primary School



- Proposed Site for Employment Generating Development
- Retained County Wildlife Site
- Proposed Recreational Use
- Land Safeguarded for Connecting Railway Line
- Proposed New or Improved Road
- Strategic Footpath
- Proposed Railway Station
- Proposed Multi Modal Transport Interchange

Note: The four plan extracts show the progression of the Local Plan.



## Planning Context

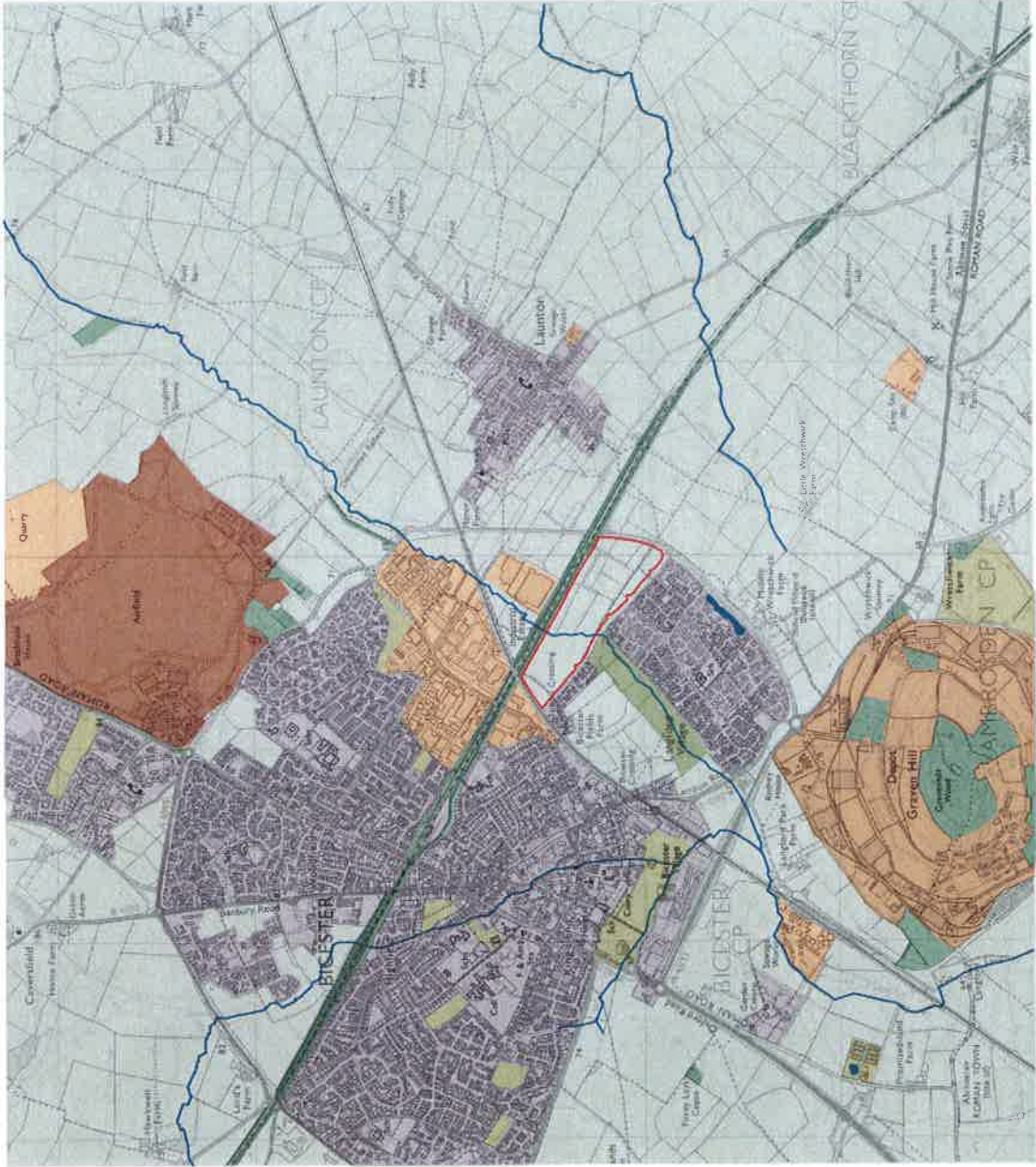
Gallagher Estates Ltd & London and Metropolitan  
Land North of Gavray Drive, Bicester,  
Oxfordshire  
1:10,000  
CPM2172/13a  
11/04 SC/KK

Alencon Barrs, Cain St Aldwyns, Cirencester, Gloucestershire GL7 5AW  
Tel: 01285 - 750555 Fax: 01285 - 750638 E-mail: info@cpm-uk.co.uk



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- Application area
- Diused airfield
- Available and pastoral fields
- Principal rivers, streams and watercourses
- Public open space and recreational land use
- Broadleaved woodland blocks and primary tree belts
- Urban built form
- Industrial and employment areas
- MOD land



- Application area
- Character area boundary, Countryside Agency
- Oxford lowlands
- Oxfordshire estate farmlands

ref: Cherwell District Landscape Assessment,  
Cobham Resource Consultants, Nov. 1995



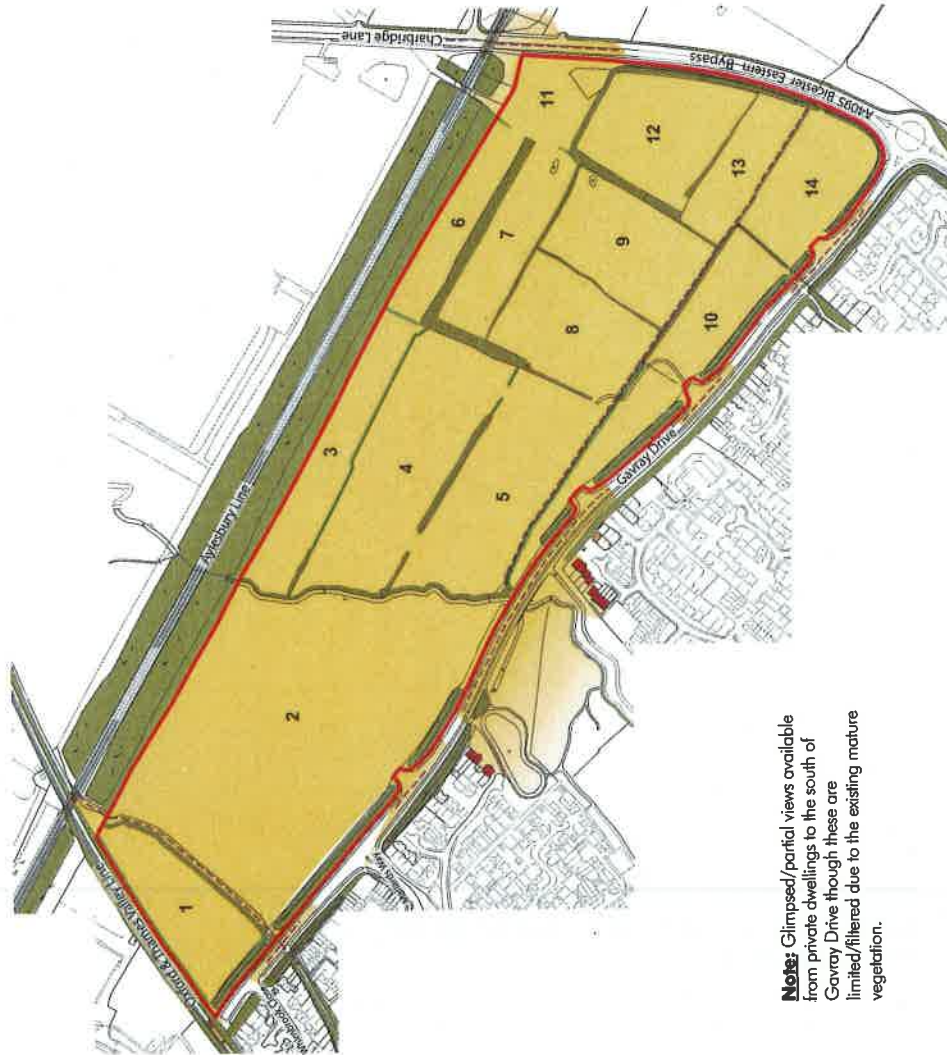
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Client  
Gallagher Estates Ltd & London and Metropolitan  
Project  
Land North of Gavray Drive, Bicester, Oxfordshire  
Scale  
As shown

Drawing No  
CPM2172/12a  
Date  
11/04  
Checked  
SC/KK

Landuse and Landscape Character





**Note:** Glimpsed/partial views available from private dwellings to the south of Gayway Drive though these are limited/filtered due to the existing mature vegetation.



Insert map showing full extent of the visual envelope, including distant views towards Groven Hill and Blackthorn Hill.

- Application area
- Private dwellings with largely clear views of the site from some private windows (14 No. approximately)
- Private dwellings with glimpsed/partial or oblique views of the site (1 No. approximately)
- Approximate extent of principal vegetative visual barriers
- Roads/footpaths/rail links/bridleways with some views to site
- Visual Envelope
- Distant glimpsed views to the application area
- Land parcels enclosed by vegetation limiting views across the application area



Visual Envelope	
Drawing Title	Gallagher Estates Ltd & London and Metropolitan
Client	Land North of Gavray Drive, Bicester, Oxfordshire
Project	1:5000
Scale	CPM2172/14b
Drawing No	12/04 SC/KK
Date	JS.
Checked	

**Gavray Drive, Bicester**  
**Gallagher Estates Ltd**

**Volume Two – Technical Appendices**  
**Chapter 7 – ECOLOGY**

**APPENDIX 1: SCOTT WILSON KIRKPATRICK AND CO. LTD (SWK) ECOLOGICAL  
STUDY**

## LAND TO THE NORTH OF GAVRAY DRIVE, BICESTER

### Summary Description

This site consists of a network of fields of varying structure divided by a network of thick, species rich hedgerows with mature standards. These mature trees provide suitable habitat for bats, although no evidence of their presence was recorded. Fields to the south west are poor semi-improved grassland, dominated by false-oat grass, creeping bent and Yorkshire fog. Thick scrub is also present along the railway line, and together with the semi-improved grassland and pasture forms excellent habitat for badgers. Well worn mammal paths which were likely produced by badgers were recorded in the north of the site, leading into scrub however detailed searches of this area were not undertaken.

Of greater value and of at least District and possibly county importance, are the fields in the centre and to the north. Two wet meadows dominated by tufted hair-grass and great burnet (*Sanguisorba officinalis*) are present here, which contain some evidence of previous ridge and furrow. This grassland may be classified as MG4 *Alopecurus pratensis* – *Sanguisorba officinalis* under the NVC. Marshy grassland adjoins this to the north, where wetter areas are dominated by hard rush (*Juncus inflexus*) with locally abundant reed canary grass. Several sedge species are also apparent including hairy sedge (*Carex hirta*), lesser pond sedge (*Carex acutiformis*) and false fox sedge (*Carex otrubae*).

A small, heavily silted stream is also present in the centre of the site. This is bordered to the east by goat willow (*Salix caprea*), crack willow, hawthorn and field maple with mature oak and ash standards. The west of the stream is mainly dominated by common nettle and great willowherb, however a number of marginal and aquatic species are also present, particularly to the south, where branched bur-reed, water plantain, reed canary grass, water starwort species and meadowsweet are all present. Although no evidence was recorded and habitat is suboptimal, the thick vegetation cover and bank structure provides suitable habitat for water vole.

### List of Information obtained

Record of 'grounded' pipistrelle bat (*Pipistrellus* sp.) on the site itself (SP598233) and a second within 1km of boundary (SP592239 on 11/06/97). Also, both pipistrelle (*Pipistrellus* sp.) and brown long eared bat roosts are recorded in Launton, to the east of the site (SP610229 on 01/04/99 and SP606223 on 24/05/01 respectively). Recorded by Oxfordshire bat group.

### Features of Importance

- Semi-improved wet grassland

- Scrub (if badgers found to be present)
- Species-rich hedgerows
- Mature trees
- Stream
- Breeding Birds

### **Constraints on Development**

On the basis of the Phase 1 survey the site is likely to meet criteria for designation as a Site of Importance for Nature Conservation. Great burnet, abundant in these fields, is a locally scarce species occurring in only 0.6-4% of tetrads in Oxfordshire. Typical of damp hay meadows, it is 1 of 100 species identified in 1996 by BBOWT as a 'Biodiversity Challenge 100' species. These species are considered rare (internationally, nationally or locally); indicative of rare or threatened habitat in Oxfordshire and characteristic of the county and culturally valued. Additionally, if the community as a whole is found to be MG4, it is subject to a Biodiversity Action Plan under the UK Biodiversity Initiative.

The central and northern sectors of the site are therefore considered to be unsuitable for development on the basis of its ecological value and any alterations to the hydrology of these areas, due for example to the development of adjoining land, should be avoided

The south western sector of the site is of lesser value, although a number of the hedges are considered to be worthy of assessment under the Hedgerow Regulations 1997. In any case, they form a habitat of at least local importance to wildlife and should be retained within the site proposals where possible.

The stream is considered of limited value, although the presence of marginal vegetation offers potential for water vole. Further surveys are required only if the watercourse is likely to be subject to direct impacts. Water voles receive limited protection under the Wildlife and Countryside Act 1981.

The damp unimproved meadows offer suitable habitat for foraging bats. The potential for roosts is considered low as no suitable tree cavities were recorded. Bats are protected under the Wildlife and Countryside Act (1981) and the Habitat Regulations (1995).

### **Further Work Recommended**

- Bat survey
- Water vole survey
- Badger survey

- Hedgerow survey (including heritage data search)

## **CONCLUSIONS**

- 4.1 4 sites were found to contain habitats sufficient to represent a significant constraint to development. The majority of Shipton-on-Cherwell Quarry SSSI and County Wildlife Site (CWS) is considered unsuitable for development due to the important bird populations present on the site. Additionally, the species-rich calcareous grasslands located at RAF Upper Heyford, also designated a CWS, are of sufficient value to make development of this area of the site inappropriate, as are the damp hay meadows at Gavray Drive, Bicester and the rush pasture and stream at the South West Bicester site.
- 4.2 The only site to contain no constraints to development was the site North of Crutchmore Crescent, Kirtlington which consists of an improved grassland field with no species-rich hedgerows. The site is dominated by perennial rye-grass and horseradish and is considered of limited value for nature conservation.
- 4.3 The remaining sites were all found to contain habitats with the potential to support notable or protected species. Each of these sites, and the potential for the presence of each relevant protected species, is identified in Table 4.1
- 4.4 Under the Habitat Regulations 1994 it is an offence to disturb both the breeding and foraging habitat of bats and great crested newts. In the case of great crested newts foraging habitat may extend up to 500m from the pond. In cases where these species are found to be present development can only take place if three conditions are met:
- There is no alternative to development
  - There is over-riding public interest
  - The favourable conservation status of the species is not adversely affected
- 4.5 Determining the presence or absence of these species on a site prior to acquisition by a potential developer should thus be considered a priority by local authorities to avoid the risk of sites becoming 'blighted' at a later stage in the planning process.
- 4.6 Ponds were recorded either within or adjacent to a site on three occasions at West of West Hawthorn Road, land to South of Overthorpe Road and West of M40, Banbury. Surveys should be undertaken during the spring when adult newts return to ponds to spawn. The majority of the sites contained trees or buildings with potential to support bat roosts. However a targeted survey at the correct time of year is likely to eliminate this risk from the majority of sites.
- 4.7 All remaining protected species are material considerations when a local planning authority is considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat. In most cases, suitable design and mitigation should enable development to proceed without significant effects.

- 4.8 A number of the sites supported habitats or species for which biodiversity action plans have been prepared under the UK Biodiversity Initiative. They include skylark, grey partridge, and lowland hay meadow and calcareous grassland. Under the Countryside and Rights of Way Act 2000 it is the duty of any Government Department, including local authorities in carrying out its functions 'to have regard to and promote the purpose of conserving biological diversity in accordance with the Convention.'

**Table 4.1 Summary of Nature Conservation Potential**

Site Name	Potential for Bats	Potential for Badgers	Potential for 'Important' Hedges	Potential for Reptiles	Potential for breeding birds	Potential for invertebrates	Potential for Water Voles	Potential for notable plants
South of Aynho Road	-	-	Low	-	-	-	-	-
North of Millon Road	-	-	Moderate	-	-	-	-	-
West of West Hawthorn Road	Low	Low	-	-	-	-	-	-
South of Buchanan Road	-	-	Low	-	-	-	-	-
South of Greenfields	-	-	Low	-	-	-	-	-
Land off Bankside	Moderate	Moderate	Moderate	-	-	Low	-	-
Land to the South of Overthorpe Road and West of	-	Low	Low	-	-	-	Moderate	-
Land to the rear of Hightown Road	-	Low	-	-	-	-	-	-
Bretch Hill Farm	Moderate	Moderate	-	-	-	-	-	-
Bicester Airfield & Caversfield	Moderate	High	Moderate	High	High	Moderate	Low	Moderate
South West Bicester	Low	Moderate	Moderate	-	-	Low	-	-
Bicester Town Rail Station Area	-	-	-	High	-	Moderate	Low	-
Land to the North of Gavray Drive	Moderate	High	High	-	-	-	-	-
Land off Howes Lane/Middleton Stoney Road	Low	Low	Low	-	-	-	-	-
Oxfordshire County Highways Depot, London Road	Low	-	-	-	-	-	-	-
Land North of Millon Road	-	-	Low	-	-	-	-	-
Land off Banbury Road, at Ells Lane	-	-	Moderate	-	-	-	-	-
Brymbo Works	Moderate	Moderate	-	Moderate	-	-	-	-
North of Crutchmore Crescent	-	-	-	-	-	-	-	-
Oak Farm	Moderate	Moderate	-	-	-	-	-	-
Shipton-on-Cherwell Quarry	-	-	-	-	-	-	-	-
Former RAF Upper Heyford	High	High	Moderate	Moderate	High	Moderate	-	High
North of Cassington Road	-	Moderate	Moderate	-	-	Moderate	-	Moderate

Land to the North of Gavray Drive, Bicester

1. **Poor Semi-improved grassland**  
Recently mown improved/poor semi-improved grassland. Cutting makes species ID problematic, but appears to be dominated by perennial rye grass (*Lolium perenne*), false oat-grass (*Arrhenatherum elatius*) and locally frequent creeping bent (*Agrostis stolonifera*) and common couch (*Elymus repens*)
2. **Species rich hedgerow**  
Includes buckthorn, hawthorn, blackthorn and bramble, with occasional goat willow (*Salix caprea*) and oak (*Quercus robur*).
3. **Species Rich hedgerow**  
Species rich hedgerow with dry ditch-species include hawthorn (*Crataegus monogyna*), field maple (*Acer campestre*), elm (*Ulmus procera*), elder (*Sambucus nigra*), blackthorn (*Prunus spinosa*) and bramble (*Rubus fruticosus* agg).
4. **Poor semi-improved grassland**  
Recently mown, poor semi-improved grassland. Cutting makes species ID difficult but includes sorrel (*Rumex acetosa*), perennial rye grass (*Lolium perenne*), creeping buttercup (*Ranunculus repens*), creeping bent (*Agrostis stolonifera*), tufted hair-grass (*Deschampsia cespitosa*), creeping thistle (*Cirsium arvense*), ragwort (*Scenecio jacobea*), yorkshire fog (*Holcus lanatus*), nettle (*Urtica dioica*) and birds foot trefoil (*Lotus corniculatus*).
5. **Mixed dense scrub**  
Scrub along railway line. Includes hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus* agg), elder (*Sambucus nigra*) and blackthorn (*Prunus spinosa*).
6. **Stream**  
Silted stream, with culvert under railway line to north. East bank is bordered by goat willow (*Salix caprea*), crack willow (*Salix fragilis*), hawthorn (*Crataegus monogyna*), field maple (*Acer campestre*), with oak and ash (*Fraxinus excelsior*) standards. West bank mainly dominated by common nettle (*Urtica dioica*) and great willowherb (*Epilobium hirsutum*). Various emmergents throughout, particularly branched bur-reed (*Sparganium emersom*). More diverse at Southern extreme, species including water plantain, reed canary grass (*Phalaris arundinacea*), meadowsweet (*Filipendula ulmaria*), reedmace (*Typha latifolia*), and foals watercress (*Apium nodiflour*).
7. **Poor semi-improved grassland with scattered scrub**  
Approximates to MG1, dominated by false oat-grass and cocksfoot (*Dactylis glomerata*). Locally frequent tufted hair-grass (*Deschampsia cespitosa*), nettle (*Urtica dioica*), ragwort (*Scenecio jacobea*) and creeping thistle (*Cirsium arvense*). Scattered scrub invading throughout includes elm (*Ulmus procera*), hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus* agg), and willow (*Salix* sp).
8. **Area of rubbish and flytipping.**  
May provide refuges for reptiles if left undisturbed.
9. **Improved grassland and species rich hedgerows**  
Improved grassland with species rich hedgerows, species including elder (*Sambucus nigra*), blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), bramble (*Rubus fruticosus* agg) and ash (*Fraxinus excelsior*).
10. **Species rich semi-improved grassland**  
Damp hay meadows with evidence of ridge and furrow. Abundant great burnet, tufted hair-grass (*Deschampsia cespitosa*) and creeping bent (*Agrostis stolonifera*). Other species includes crested dogs tail (*Cynosurus cristatus*), meadowsweet (*Filipendula ulmaria*), meadow buttercup (*Ranunculus acris*) and reed canary grass (*Phalaris arundinacea*). Appears diverse – requires more detailed survey.



11. **Marsh and tall ruderals with scattered scrub**

Locally frequent soft rush (*Juncus effusus*) and hard rush (*Juncus inflexus*). Great willowherb (*Epilobium hirsutum*), creeping bent (*Agrostis stolonifera*) and tufted hair-grass (*Deschampsia cespitosa*) all locally dominant. Variety of sedges including false fox sedge and hairy sedge (*Carex hirsuta*). Scrub invading includes blackthorn (*Prunus spinosa*), willow (*Salix* sp.), alder (*Alnus glutinosa*) and bramble (*Rubus fruticosus* agg.).

12. **Semi improved grassland**

Dominated by tufted hair-grass (*Deschampsia cespitosa*) with frequent creeping thistle (*Cirsium arvense*). Lower quality than fields to west, but still relatively diverse.

13. **Species rich grassland and marsh**

Quality varies through field, better to west. Contains marshy patches dominated by reed canary-grass (*Phalaris arundinacea*) to north. Variety of species, including locally dominant hard rush (*Juncus inflexus*), soft rush (*Juncus effusus*), creeping thistle (LA), creeping bent (A), meadowsweet (O-f), silverweed (o), tufted hair-grass (LA), false fox sedge (O), meadow buttercup @, hairy sedge (LF), amphibious bistort (O), birds foot trefoil @, white clover (Lo), false oat-grass (O) and meadow vetchling (O).

**Additional Comments:** Majority of hedgerows on site species rich with standards. Need hedgerows survey to fully assess value. Site for range of species, including breeding birds, badgers, bats (particularly foraging) and possibly water voles. Also low possibility of reptiles.



Figure 3.13  
Phase 1 Habitat Map  
for Land to the North  
of Gavray Drive,  
Bicester

### Legend



- Site Boundary
- Scattered Scrub
- Scattered Trees
- Watercourse
- Species Rich Hedge
- Species Poor Hedge
- Marsh
- Ruderal's
- Deciduous woodland
- Dense/Continuous Scrub
- Improved grassland
- Species poor semi-improved grassland
- Arable Land
- Species rich semi-improved grassland
- Phase 1 dominant species codes
- Target Note Number

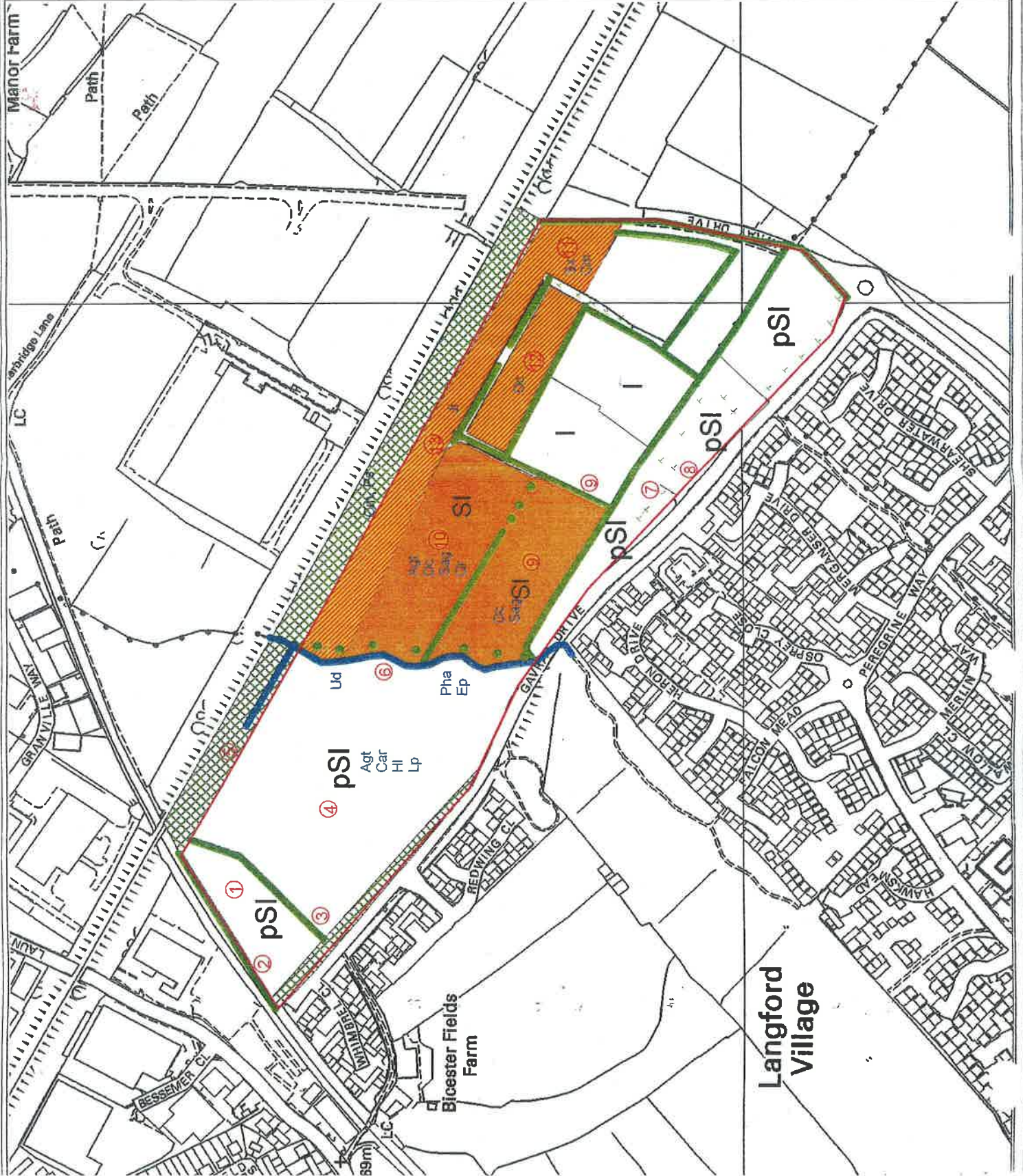
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Scale 1:4000

07 August 2001

Drawn By: DCH

Checked By: NJH



**Gavray Drive, Bicester  
Gallagher Estates Ltd**

**Volume Two – Technical Appendices  
Chapter 7 – ECOLOGY**

**APPENDIX 2: BERKSHIRE, BUCKINGHAMSHIRE AND OXFORDSHIRE WILDLIFE  
TRUST (BBOWT) REPORT**

# County Wildlife Sites

## Survey Report for Gavray Drive

Area: ca. 14 ha

Parish: Bicester and Ambrosden

Visit details: 21 June 2002 for 5 hours (Camilla Lambrick), 24 June 3 hours (Mike Rogers) and 26 June 6 hours (Camilla Lambrick and Mike Rogers).

Grid ref: SP 595226

District: Cherwell

Photos taken: 6

### Summary

Gavray Drive consists of a mosaic of small damp fields with ponds, divided by thick hedges with old trees. Most of the fields are probably former hay meadows on ridge and furrow and have a sward mostly dominated by tufted hair-grass. Great burnet is abundant in one field, and scattered in five others. Common marsh bedstraw, devil's-bit scabious, bugle, greater bird's-foot trefoil, common knapweed and short-fruited willowherb are occasional, while betony and pepper saxifrage are rare. There is a very good range of rushes and sedges (10 species - glaucous sedge, common sedge, carnation sedge, brown sedge, hairy sedge, false fox sedge, spiked sedge, pendulous sedge, slender tufted sedge and oval sedge). Grasses include meadow barley, yellow oat-grass, sweet vernal grass, meadow foxtail and red fescue. In the drier areas, slightly acid conditions are indicated by frequent tormentil and lesser stitchwort. The ponds contain greater reedmace, gypsywort, marsh foxtail, sharp-flowered rush and soft rush. One of the fields appears to be an old pasture, with ragged robin and common spotted orchid. The hedges between the fields are very thick and include oak, grey willow, field maple, honeysuckle, dogwood, crack willow and white willow; they are probably post-medieval as they dissect the ridge and furrow area.

Many birds are using the area, including three to four pairs of reed bunting, plus willow warbler, garden warbler, blackcap, whitethroat, lesser whitethroat, chiffchaff, bullfinch, song thrush, yellowhammer and sedge warbler. Butterflies include meadow brown, large skipper, ringlet, common blue, small heath and a large colony of marbled white.

Not included in the County Wildlife Site is a reverted arable field (to the west). While the flower-rich neglected land to the south is not as rich in uncommon species, it houses a large population of marbled whites and serves as a buffer between the richer areas and Gavray Drive.

### Description by Field

4. The western-most field is dominated by coarse grasses (couch grass, perennial rye grass) with docks. It is probably recently reverted arable land and should not be included in the County Wildlife Site.

13 is a long narrow field with a recently dug drainage ditch along the northern side. It may have originally been a pasture. It has a variety of damp, slightly acid-requiring species such as tormentil, lesser stitchwort, slender tufted sedge, bugle, ragged robin, dropwort, water forget-me-not, common spotted orchid and rushes such as compact rush and soft rush.

10. This field lies on ridge and furrow, and is dominated by tufted hair-grass with meadow barley, yellow oat, red fescue and Yorkshire fog. There is a substantial patch of devil's-bit scabious and betony.



12. This is the richest field, with a large area dominated by great burnet as well as patches of devil's-bit scabious, greater bird's-foot trefoil and common marsh bedstraw.

14 (marked as 9 on the Scott Wilson map) lies on ridge and furrow, and contains great burnet, lady's bedstraw, bird's-foot trefoil, sorrel and the meadow form of common knapweed.

15 (also marked as 9 on the Scott Wilson map) This species-poor field lies on ridge and furrow and is dominated by Yorkshire fog and creeping bent grass, with some field buttercup. The pond contains tufted water forget-me-not.

16, 17 and 18 are all species-poor fields over ridge and furrow, with the following different species:

16 contains meadow fescue, lesser stitchwort and yellow oat.

17 has sweet vernal grass and great burnet.

18 contains spiked sedge, meadow barley, tormentil and great burnet.

7 and 8 are very rank, with a dense growth of tall oat-grass, hawthorn and bramble. This forms a thick boundary along Gavray Drive.

19 appears to have had the top soil stripped and heaped, and the remaining surface has been channelled, sometimes deeply, creating wet areas with greater reedmace, marsh foxtail, cuckooflower, glaucous sedge, pendulous sedge, soft rush, compact rush, hard rush, greater bird's-foot trefoil, and common marsh bedstraw. The area is flower-rich, with a large population of marbled whites and large skippers using flowers such as marsh thistle, hairy St. John's-wort, common knapweed, common bird's-foot trefoil and oxeye daisy. The disturbed conditions allow such annuals as slender tare to flourish.

11 is a rough area of bushes and tall vegetation.

The fields east of the road have a similar suite of species and also include carnation sedge.

20. This field has a varied sward with meadow foxtail, meadow fescue, sweet vernal grass and oval sedge in the drier areas. The damper furrows contain sharp-flowered rush, compact rush and false fox sedge. Herbs include occasional great burnet, greater bird's-foot trefoil, cuckooflower, marsh thistle and lesser stitchwort, with a little bugle and water figwort. Devil's-bit scabious is present under the hoarding near the road. The pond in the northeast corner is about 4 m across; it is quite shaded by grey willow and has dense soft rush, reed canary grass and water forget-me-not round the edges, with greater reed mace and starwort in the water.

21. The next field to the east is dominated in the furrows by tufted hair-grass with occasional compact rush and sharp-flowered rush; meadowsweet, wild angelica and tufted vetch are rare. On the ridges are areas of silverweed, hairy sedge and Yorkshire fog, with a little bird's-foot trefoil, sorrel, meadow vetchling, cinquefoil and lesser cat's-tail. Along the northern side are areas of devil's-bit scabious, creeping jenny, common spotted orchid, bugle, brown sedge and carnation sedge. Marsh foxtail and lesser stitchwort are found in the north-east corner. The land at the north-west corner is drier, with abundant tormentil. There is also some scattered scrub in this field.

22. This field is slightly drier than 20 and 21, with more Yorkshire fog, meadow foxtail, sweet vernal grass and hairy sedge, as well as many of the other species mentioned above. Species found here but not in the other fields east of the road include spiked sedge and meadow barley. The field has abundant young scrub and invading aspen on the east side. It has probably been unmanaged for several years. The seasonal pond in the east of this field is overgrown with great hairy willowherb and grasses.

23. This field has a tall dense growth of grass, but does contain patches of betony, great burnet and brown sedge. The pond is covered by a fallen crack willow.

The hedges across the entire site are mostly tall and thick hawthorn with bramble, blackthorn and elder and occasional crack willow, field maple, oak, ash, dogwood and honeysuckle. The parish boundary by field 19 contains wood meadow grass, an ancient woodland indicator species. Water plantain is found in the stream. Between fields 10 and 13 there is a continuous double hedge (not shown on the Scott Wilson report) with one large collapsed crack willow pollard and mature oak, ash and crack willow.

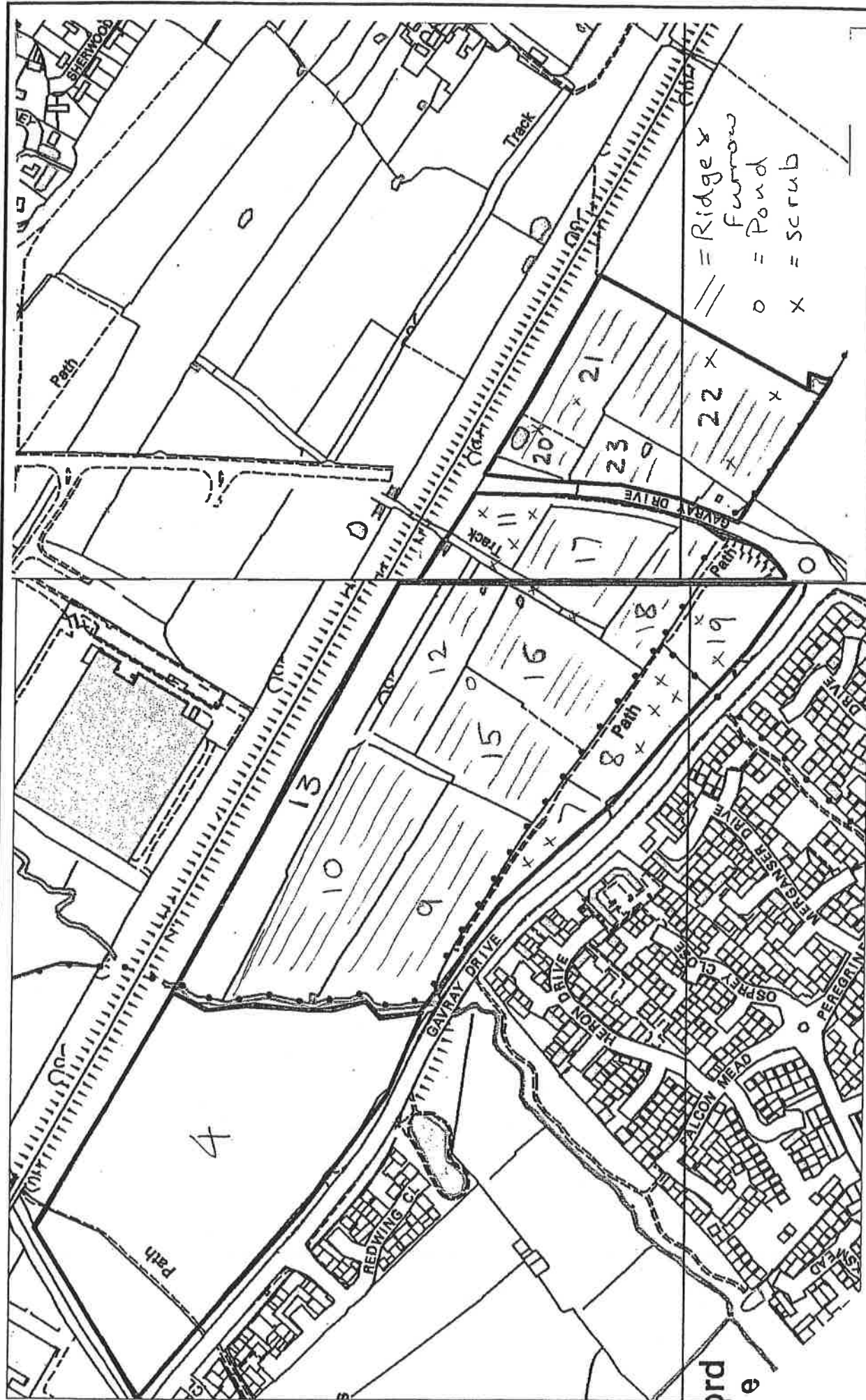
Three of the four singing reed buntings were heard east of the road, and one was seen to fly across it towards the main part of the County Wildlife site (to the west). The areas to the west and east of the road are therefore being used by small birds as one complete unit. The eastern section provides a link to the wider countryside to the east, without which bird populations in the western part would become isolated.

### **Management**

The fields are unmanaged and have become too dense for many of the species to survive for long.

### **Assessment of the Survey**

The site was only visited in midsummer. Additionally, the tall growth makes some species difficult to locate.



**APPENDIX 3: MEETING NOTES**



**NOTES OF A MEETING****CPM2172****PROJECT:** Gavray Drive, Bicester**ON:** 28 February 2003, 10.00am**AT:** BBOWT Offices, Littlemore, Oxfordshire

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**Those Present:**

Craig Blackwell – Oxfordshire County Council  
Camilla Lambrick – County Wildlife Sites Surveyor  
Nigel Evans – Cherwell DC  
David Keyse – JJ Gallagher  
Brian Duckett – Hankinson Duckett Associates  
Charlotte Webbon – Hankinson Duckett Associates  
Karen Hall - CPM

Circulation – all those present and Rob Rowlands – CPM, Michelle Kirby – Roger Tym and Partners

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**SUMMARY OF CPM COMMENTS/MEETING NOTES**

CB handed out Wildlife Site Criteria, Survey report for Gavray Drive Meadows, Gavray Drive Meadows Citation, CPM and CWS Selection Panel recommendations and the Reasons for the final designation to each attendee

CB introduced the meeting, describing the background

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- In 2001 Cherwell DC commissioned consultants to undertake Local Plan Sites Survey.
- In Early 2002 the Gavray Drive site was noted to have some ecological interest.
- This led to the designation of the site as a County Wildlife Site.

NE set out the planning background

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- The Adopted Local Plan is being reviewed and is now in its second stage
- Originally the Gavray Drive site was allocated for employment, last year CDC changed this to residential
- CDC have had lots of representations on the second stage, and this combined with a new database system has created some delays but hope to make the representation to the executive in May 2003
- Therefore, the Public Inquiry is likely to be February/March 2004

#### KH briefly overviewed CPM's involvement

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- Instructed by JJ Gallagher's to do ecology surveys late spring/early summer 2002
- A number of flora and fauna surveys were undertaken during summer 2002
- As a result, Field 7, was considered to meet the County Wildlife Site criteria
- A small population of great crested newts was found to be present

#### CL commented on Wildlife Sites Surveys

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- Visited the site on several occasions from June 2002 onwards
- Visits in September led to the discovery of Pepper saxifrage and sneezewort in field 11, and these 2 species combined with great burnet and devil's-bit scabious already known from the field led to BBOWT considering Field 11 to be of County Wildlife Site status
- Hence, the plan circulated indicating Fields 11 & 12 are proposed as most worthy of retention by CWS and Oxfordshire CC, and a practical area for future management

BD then posed the question that if burning ecologically enhances Field 11, would the other fields within the site respond in the same manner?

CL and CB explained that this could be the case, however Field 11 has been put forward as it's botanical interest is known, from the data collected last year. However, it is acknowledged that the other fields could hold a similar seed bank but no individual plants have been identified through the surveys undertaken.

DK inquired to NE regarding what would be required in the way of Public Open Space, and whether the Wildlife Site and the flood plain area would contribute to POS. NE indicated that more than Fields 11&12 and the flood plain would be required to meet CDC's POS requirements. NE indicated that CDC may not accept the floodplain area as a 'kickabout'/dogwalking area, both DK and BD commented that this was unusual. CDC were criticised for allowing this in the development area to the southeast. CB explained that the retained fields could be used for informal recreation, with restricted access during part of the year when paths could be cut through the vegetation.

DK explain the current position with regard to land ownership within the site  
JJ Gallaghers own SE corner (Fields 1&2)

- Diocese of Oxford owns Fields 11 & 12
- London and Metropolitan own the northern boundary, east of the watercourse (Fields 4,5 & 6), JJ Gallagher are in contact with them
- Norman Trust own the remainder of the area (JJ Gallagher have an agreement with them)

NE expressed concern regarding the 'control' of housing developers in relation to the way in which JJ Gallaghers work. DK explained that once a site has planning permission JJ Gallagher put in the infrastructure and hold responsibility for the S106 agreement and then sell off pockets of land to housing developers to work within a defined 'masterplan'.

CB and CL commented that translocation of all newts off site could be considered, as only dealing with a small population, provided a suitable receptor site could be found. The land to the east of the N-S road, also a County Wildlife Site, may be suitable, although further survey work will need to be

undertaken, as will discussions with English Nature.

As an aside, CB commented that Oxfordshire CC are objecting to the change of use of the site to residential, as would prefer employment use as this would lower the human impact on the CWS.

DK to clarify what control JJ Gallagher have over the land to the east of the N-S road.

**ACTION DK**

There was some confusion as to the accurate floodplain boundary. NE commented that the Environment Agency and Tony Brumell (CDC Chief Engineer) have a definitive boundary line.

CB asked if JJ Gallagher would consider providing some funding for the management of the off-site area to the east of the N-S road. DK commented he could not foresee any problems with this.

### **Options**

The retention of Fields 7 And 11 was discussed and discounted on the practicalities of management – 1 large portion of land probably better than 2 smaller areas.

BD questioned what use Field 6 could be put to, if Fields 11 and 12 are retained, as proposed. Agreed that Field 6 in this situation would be virtually sterile. BD then proposed '**Option 1**' that the eastern portions of Fields 11 and 12 would be developed and the western part of field 6 becomes the retained area (see attached sketch plan), possibly with some translocation of turfs from field 11 to the poorer areas of fields 12 and 6. This would create a broad corridor along the watercourse creating an extension to the floodplain and would also connect with the railway line corridor.

Following discussions relating to continuity of habitat both along the watercourse corridor and railway embankment vegetation '**Option 2**' was proposed (see attached sketch plan). This incorporates Fields 5, 6 and 7.

Both DK and BD commented there would be funding available for the translocation of turfs from either field 11 or 7, depending on which Option was favoured.

All team members to consider the two Options over the next 4 weeks.

**ACTION ALL**

Next Meeting arranged for 27 March 2003, 10am, BBOWT Offices

## NOTES OF A MEETING

CPM 2172

**PROJECT:** Gavray Drive, Bicester

**ON:** 27 March 2003, 10am

**AT:** BBOWT Offices, Littlemore, Oxfordshire

### Those Present:

Craig Blackwell	Oxfordshire County Council
Camilla Lambrick	BBOWT
Nigel Evans	Cherwell DC
Charlotte Webben	Hankinson Duckett Associates
Rob Rowlands	CPM

Circulation – all those present, and David Keyse – JJ Gallagher, Karen Hall – CPM, Michelle Kirby – Roger Tym and Partners

### SUMMARY OF CPM COMMENTS/MEETING NOTES

<p><b>Notes from a Meeting on 28<sup>th</sup> February 2003</b> No comments were received from the previous meeting and those present considered that the meeting notes prepared were very helpful.</p>	
<p><b>Aims of the Meeting</b> The main aims of the meeting were to:</p> <ul style="list-style-type: none"> <li>• Clarify land ownership issues, particularly in relation to the area to the east and to JJ Gallaghers ownership; and</li> <li>• Discuss the two options proposed at the meeting on the 28<sup>th</sup> February 2003.</li> </ul>	
<p><b>Land Ownership</b> David Keyse of JJ Gallagher was not present at the meeting. No land ownership information was presented at the meeting and RR agreed to progress this matter with DK and forward that information to those present, including land under the ownership of London Metropolitan. The CWS Selection Panel requires land ownership information so that they can write to the owners to inform them of the designation.</p>	<p><b>Action:</b> <b>RR/DK</b></p>

## Options

Since the previous meeting, the County Wildlife Sites Selection Panel, which comprises the County Ecologist and representatives from English Nature, the Wildlife Trust and the Biological Records Centre, had been presented with the two options proposed at the meeting on the 28<sup>th</sup> February 2003. CB stated that the decision of the CWS Selection Panel was unanimous and strongly in favour of Option 1. Option 1 being the retention of the majority of fields 6, 11 and 12 and forming a broad corridor along the watercourse and creating an extension to the floodplain and linking in with the railway line corridor.

The CWS Selection Panel considered that Option 1 would form a good and viable management unit that was connected to the stream corridor, retaining the majority of Field 11. The CWS Selection Panel considered that Option 2 was more strung out and would be difficult to maintain over the long term.

Concern was expressed by the CWS Selection Panel that the Option 1 boundary had been redrawn to show a smaller area in the second version of the 28<sup>th</sup> February 2003 meeting notes. RR and CW assured those present that they viewed the line drawn being only indicative of the area proposed for retention.

Two variants of Option 1 were discussed, a straight line variant and a stepped variant:

- The straight line variant would result in the loss of the eastern end of Fields 6, 11 and 12 including the existing field boundaries (see plan attached); and
- The stepped variant would see the whole of Field 11 retained as well as the eastern field boundary, which would then result in less of Fields 6 and 12 being retained (see plan attached).

CB preferred the straight-line option, while CL preferred the stepped variant due to the retention of part of the field boundary including mature oak trees.

Those present considered that the best way to define the area to be retained and hence the boundary would be to accurately calculate the area for both variant 1 and 2. In terms of defining the boundary, the area to be located within CWS boundary in Field 6 is the area to be subtracted from the east of fields 11 and 12, excluding the area identified as floodplain.

NE questioned the viability of the western end of Field 10 if Option 1 is confirmed. Those present questioned whether this could also contribute to the CWS area. RR said that he would discuss this further with DK. CB suggested that if it was included it could be scrubbed up to strengthen the field boundaries.

NE said that the final decision on the CWS boundary was dependent on whether the site is developed for residential or employment since this would determine what the areas of fields 6, 11 and 12 outside the CWS boundary could be used for. NE considered that the decision on the exact boundary should be left until the masterplan was developed.

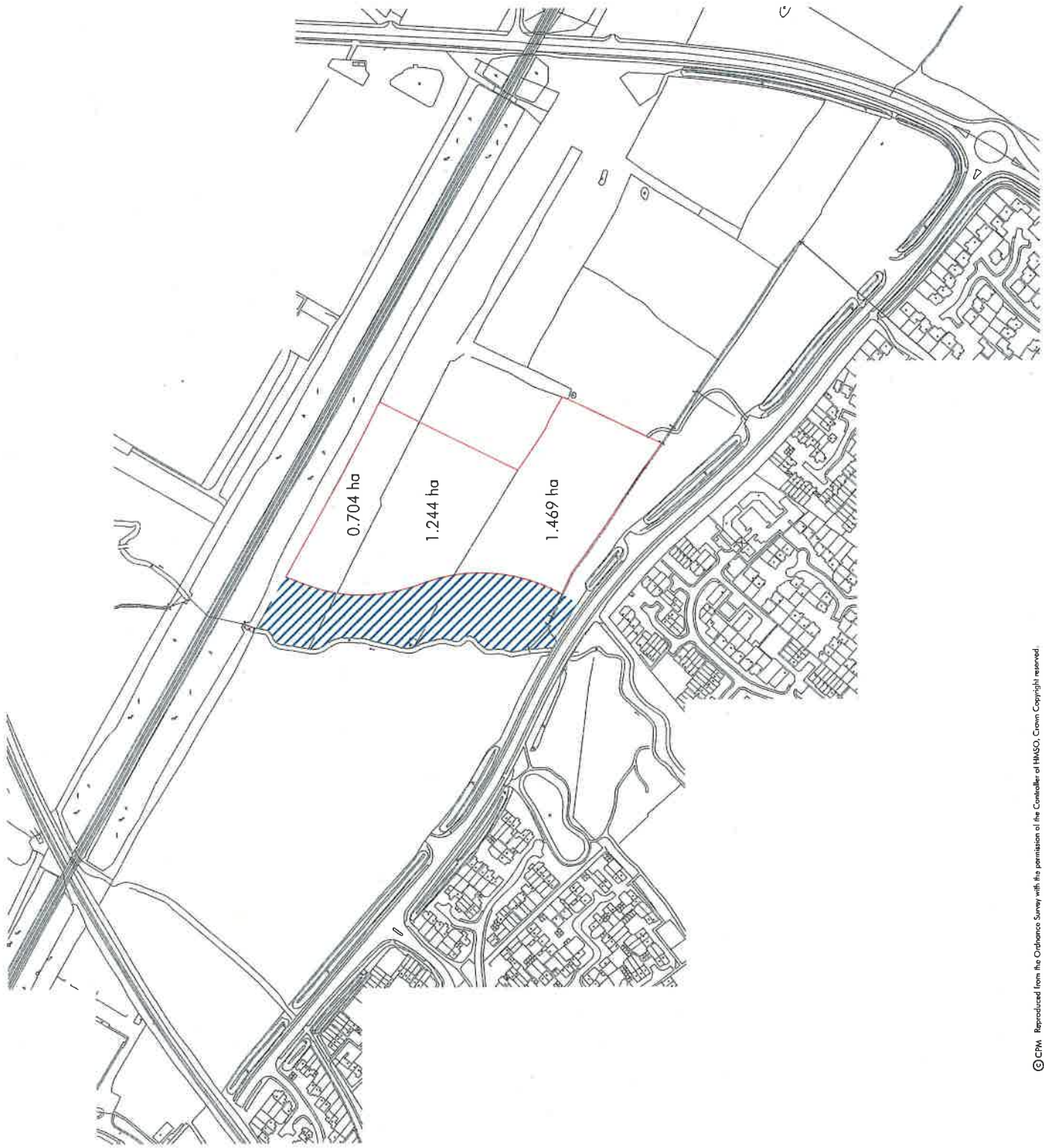
NE stated that CDC Officers need to report to the Executive on the 19<sup>th</sup> May 2003. Therefore, there is a need to resolve the CWS issue by the end of April 2003.

**Action: RR**

**Action:  
RR/DK**

<p><b>Great Crested Newts</b></p> <p>Since the meeting of the 28<sup>th</sup> February 2003, CB had written to English Nature to see whether translocation of great crested newts from the site would be acceptable in principle to English Nature. CB has received a response from English Nature, which he will copy to those present and the other recipients of the meeting notes.</p> <p>English Nature state that in principle it would consider the translocation of great crested newts from the site. However, they would need to ensure that it would be a viable option and would therefore need a mitigation strategy in place.</p> <p>Two sites were discussed as possible receptor sites:</p> <ul style="list-style-type: none"> <li>• Land to the east of the Gavray Drive site; and</li> <li>• Land under the ownership of the Diocese of Oxford near Launton, which is within 1km of the site (proposed by CW).</li> </ul> <p>It was considered that in order to prepare a mitigation strategy, it would be necessary to undertake great crested newt surveys to establish the baseline for the receptor sites. RR said that he would discuss this with DK.</p>	<p><b>Action: CB</b></p>
<p><b>Other Issues – Road Access</b></p> <p>NE asked CL whether the Wildlife Trust would consider an access road crossing the eastern boundary of Field 12 as acceptable. CL considered that this would be acceptable to the Trust.</p>	
<p><b>Other Issues – Public Open Space (POS)</b></p> <p>NE had consulted Sharon Witting regarding POS and the CWS. NE stated that there are three types of Public Open Space:</p> <ul style="list-style-type: none"> <li>• Children's play space and designated play areas;</li> <li>• Formal sport's provision; and</li> <li>• General amenity space for dog walking, picnicking etc.</li> </ul> <p>NE stated that Cherwell District Council (CDC) considers that the floodplain and the CWS are only suitable for the provision of the third type – general amenity space. CDC considered that children's play space would have to be provided within the development. A financial contribution would be sought for the provision of formal sport's POS in another area of Bicester.</p> <p>NE stated CDC considers that, due to the site being long and narrow it is likely that additional POS would be necessary both towards the eastern end of the site, and the west of Field 13 in addition to the CWS and flood plain.</p>	
<p><b>Other Issues – No Net Loss</b></p> <p>CB considers that the overall approach to CWS is that there should be no net loss. With respect to this site, CB stated that there is a net loss and asked DK to consider whether any adjacent land could be purchased for habitat creation work e.g. land to the east of fields 15 and 17 or land to the north of the railway line.</p> <p>NE stated that land to the north of the railway is better as future expansion will probably be to the south east of Bicester rather than north of the railway.</p>	

<b>Other Issues – Long Term Management</b> CB stated that a commuted sum would be sought from the developer to secure the long-term management of the habitats. The overall responsibility of the long-term management would require further discussion.	
<b>Next Meeting</b> The next meeting has been arranged for Wednesday 23 <sup>rd</sup> April at 10am at the BBOWT offices.	



1 in 100 yr Flood Plain  
(Data supplied by Cherwell District Council)

Proposed County Wildlife Site Boundary



### Option 1 - Stepped Variant

Drawing Title  
Client  
Project  
Scale  
Drawing No  
Date  
Checked

J J Gallagher Ltd  
Gavray Drive, Bicester, Oxfordshire  
As shown  
CPM2172/06  
04/03 R8/RH  
16/11/14



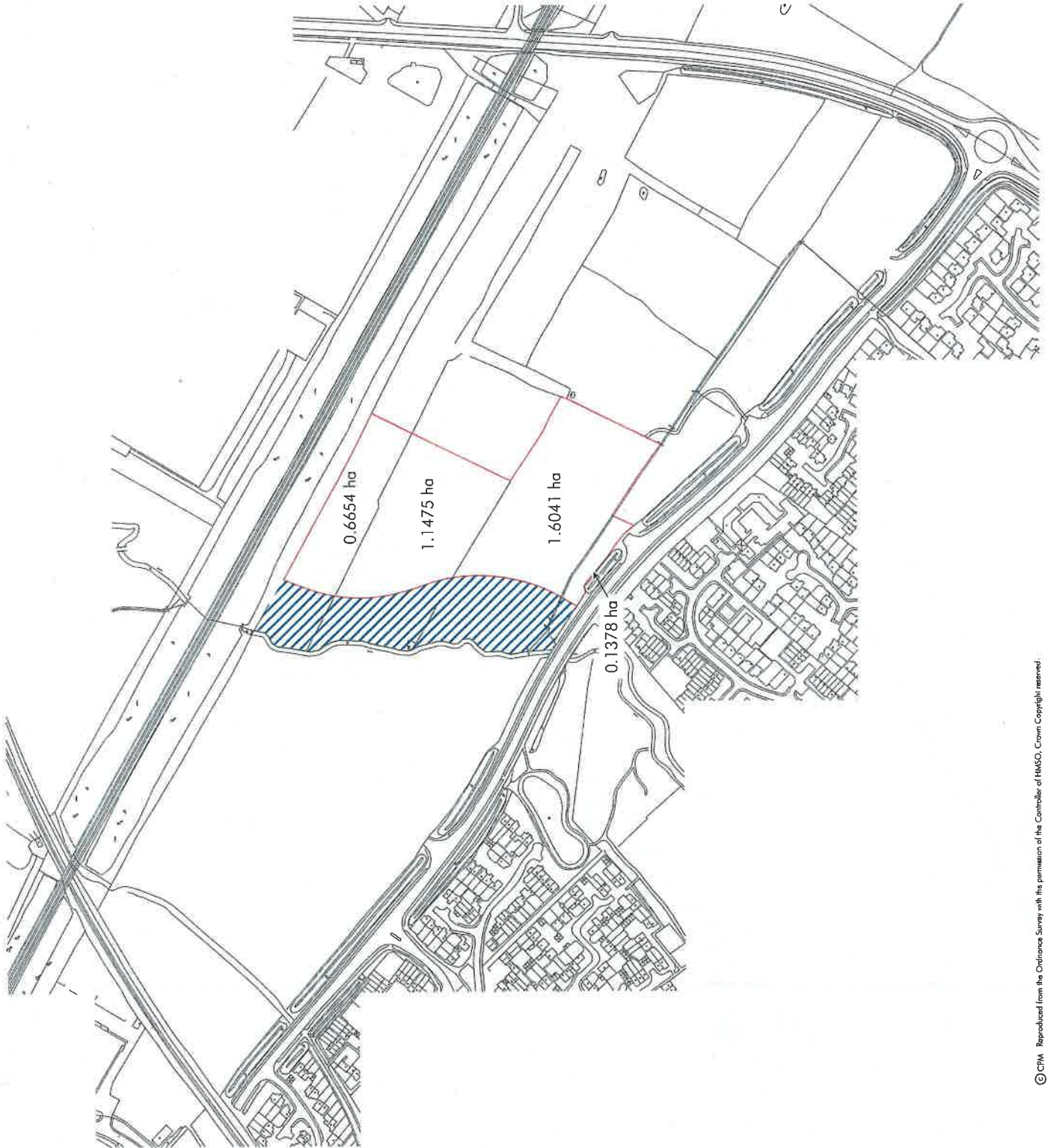
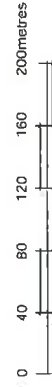
Alaston Barns, Celn St Aldwyns, Gloucestershire GL2 5AW  
Tel: 01285 750555 Fax: 01285 750556 Email: info@cpm.co.uk





1 in 100 yr Flood Plain  
(Data supplied by Cherwell District Council)

Proposed County Wildlife Site Boundary



### Option 1 - Stepped Variant Retaining Part of Field 1

J J Gallagher Ltd  
Gavray Drive, Bicester, Oxfordshire  
As shown  
CPM2172/07  
04/03 RR/RH  
RL 10/1/20

Drawing Title  
Client  
Project  
Scale  
Drawing No  
Date  
Checked

Alvanham Bams, Colin St Aldwyns, Cirencester, Gloucestershire GL7 5AW  
Tel : 01285 750555 Fax : 01285 750636 E-mail : info@cpm-uk.co.uk





- 1 in 100 yr Flood Plain  
(Data supplied by Cherwell District Council)
- Proposed County Wildlife Site Boundary



### Option 1 - Straight Line Variant

Gallagher Estates Ltd & London and  
Metropolitan  
Land North of Gavray Drive, Bicester, Oxfordshire

- Phase 1

As shown

CPM2172/05

04/03 RR/RH

RL 16/11/06

Drawing Title

Client

Project

Scale

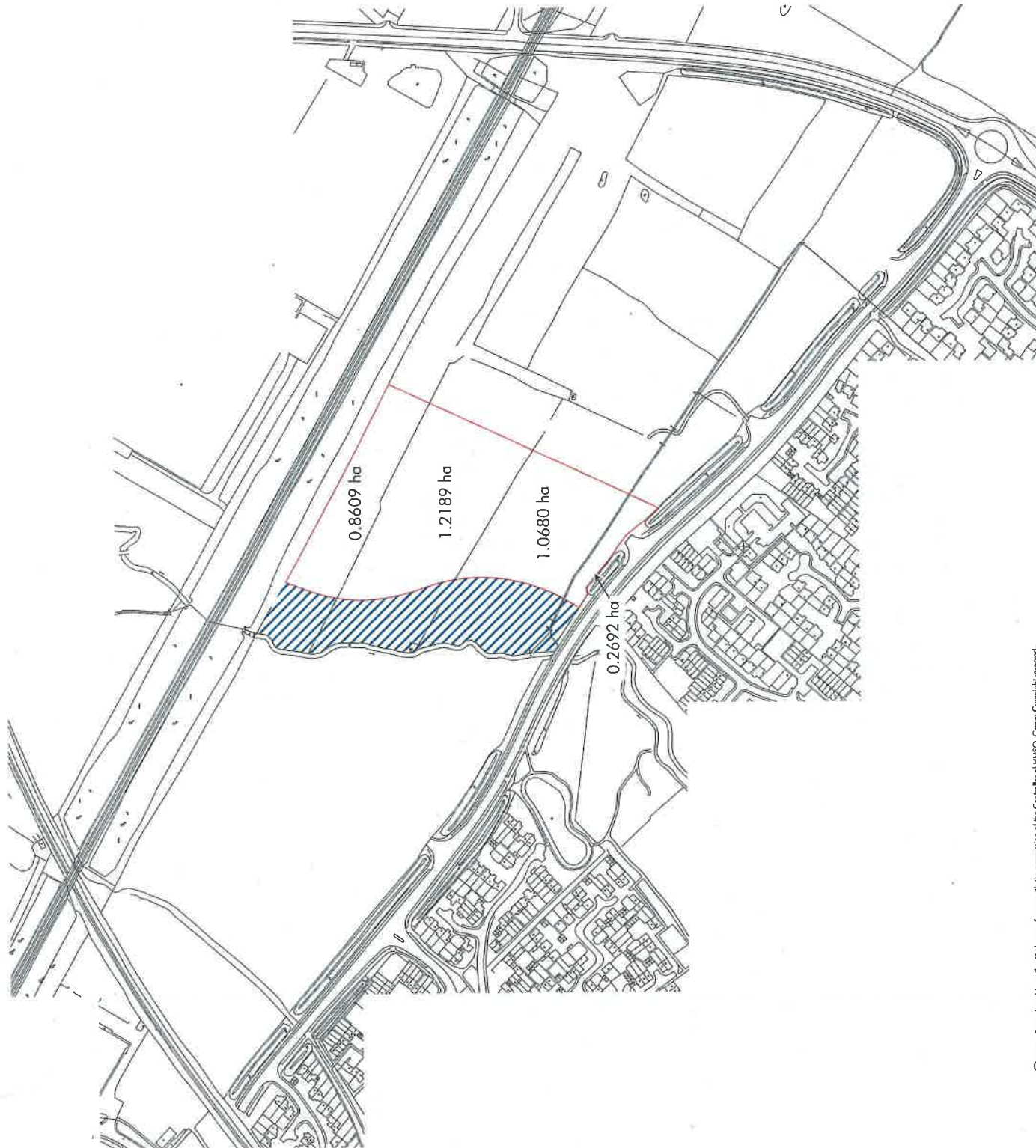
Drawing No

Date

Checked







-  1 in 100 yr Flood Plain  
(Data supplied by Cherwell District Council)
-  Proposed County Wildlife Site Boundary



## Option 1 - Straight Line Variant Retaining Part of Field 1

J J Gallagher Ltd  
Gavray Drive, Bicester, Oxfordshire  
As shown  
CPM2172/08  
04/03 RR/RH  
16/11/24

Alenham Rams, Cain St Aldreys, Cirencester, Gloucestershire GL7 5AW  
Tel : 01285 759555 Fax : 01285 759556 E-mail : info@cpm-uk.co.uk

Drawing Title

Client

Project

Scale

Drawing No

Date

Checked



**NOTES OF A MEETING****CPM 2172****PROJECT:** Gavray Drive, Bicester**ON:** 6<sup>th</sup> June 2003**AT:** BBOWT Offices, Littlemore, Oxfordshire**Those Present:**

Craig Blackwell	Oxfordshire County Council
Camilla Lambrick	BBOWT
Nigel Evans	Cherwell District Council
Charlotte Webbon	Hankinson Duckett Associates
Rob Rowlands	CPM

**Circulation**

All those present and David Keyse – JJ Gallagher, Karen Hall – CPM, Michelle Kirby – Roger Tym and Partners.

**SUMMARY OF CPM COMMENTS/MEETING NOTES****Land Ownership**

RR tabled two plans forwarded by DK prior to the meeting.

One plan indicated the distribution of land ownership within the site. There are four landowners, namely JJ Gallagher, Oxford Diocese, The Norman Trust and London and Metropolitan. RR confirmed that JJ Gallagher have an option on The Norman Trust land and any contact relating to this land should be directly through DK at JJ Gallagher. Through RR, DK confirmed that he had no contact details for London and Metropolitan.

The second plan indicated the land owned by the Norman Trust including land to the east of the distributor road (See comments in relation to Great Crested Newts below).

## Options

Since the previous meeting, the County Wildlife Sites Selection Panel had been presented with the four variations on the revised County Wildlife Site boundary circulated with the meeting notes of the previous meeting.

The County Wildlife Sites Selection Panel's preferred option was the Option 1 – Stepped Variant boundary (Plan CPM2172/06).

RR raised concerns made by DK that this option would lead to the sterilization in development terms of a significant part of Field 1. This concern was echoed by CW. RR and CW preferred Option 1 – Stepped Variant Retaining Part of Field 1 (Plan CPM2172/07).

NE raised concerns that to include part of Field 1 within the County Wildlife Site boundary could be problematic in terms of the emerging Local Plan. NE stated that the reason for this is that Field 1 was excluded from the original CWS designation. Therefore there are no logical reasons for retaining it within the revised CWS boundary and that it could be difficult in planning terms.

Those present agreed to reach a compromise and decided that Option 1 – Stepped Variant Retaining Part of Field 1 (Plan CPM2172/07) would be used as the finalized revised County Wildlife Site Boundary. However, the part of Field 1 would not be described as CWS but as a 'general landscaping area'. RR suggested that the undeveloped section of Field 1 could potentially be used for habitat creation.

CB, CL and NE requested written statement(s) from all landowners, namely JJ Gallaghers, The Norman Trust, Oxford Diocese and London & Metropolitan, confirming:

- 1) Acceptance in principle of the revised CWS boundary (Stepped Variant retaining part of Field 1);
- 2) Agreement in principle to include the retained part of Field 1 as a 'general landscaping area' which will have a supporting role for the CWS.

A statement from each of the four landowners needs to be sent to NE and copied to CB and CL. It was agreed that the statement should have a plan with the agreed revised CWS boundary attached. Statements need to be forwarded to NE by the end of June in preparation for the CDC Committee Meeting on the 23<sup>rd</sup> July.

CB, CL and NE requested confirmation that the Norman Trust and London & Metropolitan approve of the revised CWS boundary. NE raised issue of the floodplain boundary shown on the plans circulated with the meeting notes of the 27<sup>th</sup> March. Floodplain boundary on these plans does not correspond with the boundary indicated on the Environment Agency Indicative Floodplain Maps. RR stressed that the flood plain boundary used to prepare this plan had been supplied by Cherwell District Councils Chief Engineer, Tony Brummell.

NE stated that the landowners could undertake a topographical survey of the area to define the floodplain boundary accurately. Unless this was undertaken, CDC will use the floodplain boundary as indicated on the Environment Agency Indicative Floodplain Maps within the emerging Local Plan. CW and RR agreed to use EA Indicative Floodplain plans.

**Action: DK,  
RR, CW**

**Action: DK,  
CW**

**Action: DK,  
CW**

**Action: DK,  
CW**

<p><b>Great Crested Newts</b></p> <p>RR confirmed on behalf of DK that JJ Gallagher have an option on 1.83ha of Norman Trust land to the east of the eastern distributor road, which includes a pond. This land could be used for the translocation of newts and incorporated into the overall management of the site.</p> <p>CL when asked by RR on behalf of DK confirmed that the Wildlife Trust would not object to the translocation of great crested newts.</p> <p>RR requested that CB forward a copy of English Nature's letter which agrees in principle to the translocation of Great Crested Newts.</p> <p>CB requested that CW investigate further the potential to translocate newts to a receptor site at Launton.</p> <p>CB requested that possible mitigation measures including GCN translocation to be included in landowners letter to CDC.</p>	<p>Action CB</p> <p>Action: CW</p>
<p><b>Long Term Management</b></p> <p>RR confirmed on behalf of DK that he is willing to discuss in principle the lodging of a commuted sum for the long term management of the site, subject to the receipt of the appropriate planning permission for residential development on the balance of the land.</p>	
<p><b>Next Meeting</b></p> <p>It was agreed that no further meeting would be required at this stage.</p>	

**Gavray Drive, Bicester**  
Gallagher Estates Ltd

**Volume Two – Technical Appendices**  
Chapter 7 – ECOLOGY

**APPENDIX 4: EXAMPLE HEDGEROW SURVEY SHEET**

Important hedge? (Tick appropriate box)	Yes:	No:
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## Hedgerow Survey Sheet (Ecology/Landscape): The Hedgerows Regulations 1997

### General Details

Job no:

Site:

Surveyor:

Date:

Hedge Number:

### FIELD-BASED STUDY

Walk the hedge on one or (where access is available) both sides and (for each hedge) record the following information:

#### A) All woody species (see list below). Undertake woody species counts as follows:

- for hedges up to 30m long, count the total number of woody species and tick the species off in column 1;
- for hedges over 30m but not exceeding 100m long, count the number of woody species in the central 30m stretch and tick the species off in column 1;
- for hedges over 100m but not exceeding 200m long, do two woody species counts: one in the central 30m stretch each half of the hedge, tick the species off in columns 1 and 2, and calculate the mean count (ie divide the total count by two);
- for hedges exceeding 200m in length, do three woody species counts: one in the central 30m stretch of each third of the hedge, tick the species off in columns 1, 2 and 3 and calculate the mean count (ie divide the total count by three).
- in addition, ring all woody species recorded in the hedge for a total species list

1 2 3			1 2 3			1 2 3			1 2 3			1 2 3			1 2 3			1 2 3					
Acer camp			Cory avell			Euon euro			Juni comm			Prun aviu			Rham cath			Sali spp			Tili plat		
Alnu glut			Coto inte			Fagu sylv			Ligu vulg			Prun padu			Ribe alp			Samb nig			Ulex euro		
Betu pend			Crat laev			Fran alnu			Malu sylv			Prun spin			Ribe spic			Sorb aucu			Ulex gall		
Betu pube			Crat mono			Frax exce			Popu alba			Pyru cord			Ribe uv-cr			Sorb torm			Ulex mino		
Buxe semp			Cyti scop			Hipp rham			P x can			Pyru pyra			Rosa spp			Sorb spp			Uimu spp		
Carp betu			Daph laur			Ilex aqui			P nig bet			Quer petr			Rusc acul			Taxu bacc			Vibu lant		
Corn sang			Daph meze			Jugl regi			Popu trem			Quer robu			Sali vimi			Tili cord			Vibu opul		

Woody species counts: count 1=      count 2=      count 3=      Mean count=

#### B) All woodland species within 1 m of the outermost edges of the hedgerow (see list below)

##### Woodland species

Adox mosc	Athy fil-fem	Care sylv	Dryo f-mas	Gali odor	Lath squa	Meli unif	Poa nemo	Prim elat	Viol odor
Ajug rept	Blec spic	Circ lute	Epip hell	Gali saxa	Luzu pilo	Merc pere	Poly acul	Prim vulg	Viol reic
Alli ursi	Brac sylv	Cono maju	Equi sylv	Gera robe	Luzu sylv	Mili effu	Poly seti	Ranu auri	Viol rivi
Anem nemo	Brom ramo	Dryo affi	Euph amy	Geum urba	Lysl nemo	Orch masc	Poly vulg	Sani euro	
Arum macu	Camp trac	Dryo cart	Fest giga	Hyac non-s	Mela prat	Oxal acet	Pote errec	Teuc scor	
Aspl scol	Camp lati	Dryo dila	Frag vesc	Lami gale	Mela sylv	Pari quad	Pote ster	Vero mont	

Number of woodland species=



water sewers. It will be necessary to demonstrate that adequate surface water sewers exist and that the surface water runoff from the development site will be no more than existing runoff.

#### **4.7 Dry Access**

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The Environment Agency states that during times of flooding in a 1% AEP (1 in 100-year) flood event, a dry means of access must be available to the site. A dry means of access would be available to the site from all main access roads, particularly the A4421.

#### **4.8 Climate Change**

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PPG25 states that '... best estimates, based on the most up-to-date findings, should also be made of climate change impact on probabilities. The assessment should ensure that the development meets an acceptable standard of flood defence for the design life of a development.'

The HEC-RAS model developed by JBA was run with a 20% increase in flow, to assess the effect of climate change. Discussion and model results for this are shown in section 3.9.

## 5 FLOODPLAIN COMPENSATION

### 5.1 General

Part of the proposed development site lies within the flood outline and it is proposed to rationalise the floodplain on the site rather than have a layout that fits around the existing floodplain outline. In order to undertake this, floodplain compensation calculations have been carried out to ensure that the new development does not reduce the floodplain capacity.

An extract of the proposed development plans are illustrated in Figure 5-1, with the full plan being shown in Appendix A. The area of land to be raised is 0.5 hectares and the land available for compensation is 0.9 hectares.

**Figure 5-1 Site Development Proposals**



The floodplain compensation calculations have been undertaken by spreadsheet calculations. Using Vertical Mapper (VM), the ground levels within the area to be raised were extracted to determine the depths of flooding. All depths within the area, apart from two small areas illustrated in Figure 5-2, were lower than 300mm and therefore it was considered necessary to compensate in one band only and provide a like for like compensation.