# Herts & Middlesex Wildlife Consultancy

The Mount, Bovingdon

Ecological Survey

April 2011

Supporting



#### Limitations

Ecological assessments can only assess a site at a particular time. This evidence can be used to draw conclusions as to the likely presence or absence of species (animals and plants), population size, use of the site by animals; it is neither definitive nor complete. Any survey is a snapshot in time and should not be regarded as a complete study. Seasonality and weather conditions may also affect survey results.

The preparation of mitigation strategies, consultation exercise and submission of any licence applications cannot be relied upon until approved [licensed] in writing by third parties. Allowance must be made for both programme and financial change to projects as a result of application failure, amendment or refusal.

Every effort will be taken to provide an accurate assessment of the situation pertaining to this site and subject at the time of the study, but no liability can be assumed for omissions or changes after the survey has taken place.

The survey is based on anticipated work resulting from instruction and information supplied at the time of request.

No responsibility will be accepted for any use of or reliance on the contents of this report by any third party.

The author reserves the right to report on any incidents or actions [deliberate or reckless] that result in a breach of licence conditions or are in contravention of existing legislation.

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## An ecological survey of land at The Mount, Bovingdon

# I. Background

Herts and Middlesex Wildlife Consultancy was commissioned to undertake an ecological survey of a parcel of land adjacent to HM Prison, The Mount, Molyneaux Avenue, Bovingdon, Hertfordshire. The survey was required to inform redevelopment proposals for the site. The report documents the results of an ecological survey of the site.

The survey consisted of a general field survey of the site to broadly map and describe the habitats present and identify any actual/potential protected or notable habitat and species constraints. Notes of any other species of interest were recorded.

This report presents the results of the survey. It includes a description of the site and an assessment of the ecological value of the land. The survey was undertaken by Dr Barry Tranter on the 4th April 2011.

### I.I Application Site Context and Status

The application site lies to the north-west edge of Bovingdon, Hertfordshire and is centred on OS grid reference TL00880359 (see map in Appendix 1).

The site is bounded to the north by the grounds of the prison; to the east and south by urban development; and to the west by Molyneaux Avenue, the access road to the prison, with Bovingdon Airfield beyond.

# 1.2 Ecological Assessment

This document provides an assessment of the ecological interest of the site. The importance of the habitats present is evaluated with due consideration given to the guidance published by the Institute of Ecology and Environmental Management (IEEM).

# 2. <u>Survey Methodology</u>

# 2.1 Habitat Survey Methodology

A Phase I Habitat Survey of the site was conducted using the methodology set out initially by English Nature (JNCC 1993) with, in addition, semi-natural habitats also recorded for dominant and indicator species (sometimes called an extended Phase I survey). This gives a guide to habitat condition and whether rare or uncommon communities are, or could be, present which would require more detailed surveys. The extended survey also provides some indication of the suitability of these habitats for supporting protected and non-protected fauna such as reptiles and amphibians. Details of habitat structure, management and any features of potential interest were noted. Subjective estimates of the relative abundance of species are given in the text using the DAFOR scale. The DAFOR scale ranks species according to their relative abundance within a parcel of land or area as follows:

Code	Description	Meaning
D	Dominant	Comprises most of the community
Α	Abundant	Very frequent in the community
		but not dominant
F	Frequent	Frequently seen in the community
0	Occasional	Seen but not frequently occurring
R	Rare	Hardly ever found

In addition L, meaning Locally, may be appended to any of the above to reflect local distribution within the site.

The estimates of abundance refer only to the given parcel of land and have no relevance to the abundance of the plant species in the wider landscape.

In this report scientific names are given after the first mention of a species, thereafter only the common names are used. The nomenclature used follows that in the New Flora of the British Isles (Stace, C. A., 2010).

The Phase I habitat results are shown on the Habitat Map (see Appendix 2).

It is recognised that with single visit surveys certain species may not be apparent due to their differing growing periods. Early April is a sub-optimal time to survey grasslands; however, the identification of seedlings, dead material and perennial rosettes and the overall habitat conditions, provide a good indication as to the likelihood of the site supporting rare or unusual species. Urban sites can provide habitats for a variety of interesting but usually non-native plants. The extended Phase I survey is a useful indicator of such sites, and whether a further more detailed survey is required in late spring/early summer. It is considered that in this instance the survey provides accurate and reliable information for the purposes of this ecological report.

The weather conditions during the survey were predominantly overcast with a strong breeze and an air temperature of approximately 11-13°C.

# 2.2 Faunal Survey Methodology

Obvious faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to

any potential use of the application site by protected species, Hertfordshire Biodiversity Action Plan (BAP) species, or other notable species.

#### **Bats**

The trees within the site were assessed (using binoculars) for their potential to support roosting bats, for example by looking for suitable, cracks, splits, holes, loose bark or dense growth of ivy.

## **Badger**

The site was searched for evidence of Badger setts and activity such as well-worn paths, run-throughs, snagged hair, footprints, latrines and foraging signs.

# 3. <u>Site Description</u>

A description of the habitats on the application site is provided below. The Habitat Map is included in Appendix I with features of note described in the Target Noted (see Appendix 4).

The following main habitat/vegetation types were identified:

- Grassland
- Shrub and scrub
- Broadleaved plantation
- Open water

A list of the plants identified, with their common and scientific names, is given in Appendix 3 and photographs of the site are presented in Appendix 5.

#### Grassland

The main part of the site is occupied by neutral to somewhat calcareous grassland, which has seen significant disturbance or dumping of waste, including builders' rubble. The main area of least disturbed grass, which is probably a

remnant of the original pasture, occurs towards the north-east corner (Photo I and Target Note I). The sward here is somewhat coarse due to lack of management, with False Oat-grass Arrhenatherum elatius dominant but Salad Burnet Sanguisorba minor is occasional here, as well as several large anthills of the Yellow Meadow Ant Lasius flavus, which can be good indicators of old pasture. There is also a smaller area of less disturbed grass at the very southern end of the site.

To the centre and the majority of the southern part of the site, the grassland shows signs of disturbance with very uneven ground and some rubble showing through in places (Photos 4, 7 and 8). Tall herb vegetation is locally dominant; with docks *Rumex* species prominent and Creeping Thistle *Cirsium arvense* is common. However, the plant community here is quite interesting and must produce a flowery aspect in the early summer with frequent to locally abundant species such as Black Knapweed *Centaurea nigra*, Hedge Bedstraw *Galium album* and several vetches *Vicia* spp. Grasses here include False Oat-grass and Cock's-foot *Dactylis glomerata*. To the south-east side, towards the reservoir, the sward is more semi-natural. The community is more open with a greater variety of grasses along with occasional herb species such as Red Fescue *Festuca rubra*, Common Bird's-foot-trefoil *Lotus corniculatus*, Red Clover *Trifolium pratense*, Oxeye Daisy *Leucanthemum vulgare*, Yarrow *Achillea millefolium*, Ribwort Plantain *Plantago lanceolata*, Greater Plantain *Plantago major* and Hairy Tare *Vicia hirsuta*. Several anthills are present here.

Invading small shrubs are locally frequent in the sward, particularly towards the edges of the grassland, and are mainly of Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa* and Rose *Rosa* spp. with less common species such as Ash *Fraxinus excelsior*, Pedunculate Oak *Quercus robur*, Dogwood *Cornus sanguinea* and willows *Salix* spp.. Bramble *Rubus fruticosus* agg. is also frequent to the boundary, mainly along the north-eastern edge, where it forms several reasonably large patches.

No scarce species were recorded within the grassland assemblage though a number of unidentified herb species of garden origin, were noted, including a species of Comfrey *Symphytum* sp. that is common in the north-west part of the site.

#### Shrub and scrub

As already noted there is frequent scrub invasion of the grassland. Most of this is quite scattered at present but towards the north-east corner there is a mosaic of dense scrub with Bramble plus some areas of shorter grass or tall herbs (see Target Note 4). This area is very disturbed with much dumped spoil and waste materials, including old timber, concrete rubble and garden refuse.

### **Broadleaved plantation**

The boundary, except along parts of the north and north-eastern edges, is predominantly bordered by a strip of young mixed broadleaved planting. Dominant species include Silver Birch Betula pendula, Pedunculate Oak, Wild Cherry Prunus avium, Field Maple Acer campestre and Beech Fagus sylvatica. Species such as Hawthorn, Dogwood, Holly Ilex aquifolium and Blackthorn occur below the canopy along with less common species such as Field Rose Rosa arvensis and Wayfaring-tree Viburnum lantana. Small saplings are frequent. The ground cover is very poor and typical of that found under secondary woodland. Leaf litter is usually dominant though in places there is abundant lvy Hedera helix, shade tolerant grasses or Ground Elder Aegopodium podagraria. Other less common species recorded include Wood Avens Geum urbanum, Bramble, Cleavers Galium aparine, Lesser Celandine Ficaria verna, and Lords-and-Ladies Arum maculatum.

Short lines of Lawson's Cypress *Chamaecyparis lawsoniana* are present along the southern and northern boundaries.

#### Open water

A small reservoir or drainage pond is present to the south-east side of the site. Due to health and safety issues this habitat was only surveyed from outside the perimeter fence (with the aid of binoculars). The reservoir is steep-sided and the banks are only partly vegetated due to fluctuating water levels. A short, speciespoor sward around the perimeter and along the upper banks supports common grasses and herbs such as Cock's-foot, Red Fescue, Ribwort Plantain and Creeping Buttercup *Ranunculus repens*. Bramble and Cow Parsley *Anthriscus sylvestris* are locally abundant to the bank top along the north-west side. Willows are occasional around the reservoir, mainly on the lower bank, and along the eastern side several have collapse into the water (Target Note 6).

#### **Fauna**

Incidental records of faunal species were made as a matter of course during the survey.

#### **Bats**

The trees within the application site are mostly very immature and lack features which could potentially support roosting bats. The only semi-mature trees are two coppiced willows and a brief inspection did not find any features likely to be used for roosting. However if development of the site goes ahead and any of the larger trees are to be felled it is advised that they are first inspected by a qualified bat consultant.

#### Badger Meles meles

No evidence of Badger was recorded within the site.

#### **Birds**

Birds seen or heard were recorded and were all common species. Birds noted were Wood Pigeon *Columba palumbus*, Black-billed Magpie *Pica pica*, Blue Tit *Parus caeruleus*, Robin *Erithacus rubecula*, Chaffinch *Fringilla coelebs*, Blackbird

Turdus merula, Chiffchaff Phylloscopus collybita and Mallard Anas platyrhynchos. Several old nests were seen in the perimeter broadleaved planting.

#### Great Crested Newts Triturus cristatus

The reservoir supports sub-optimal habitat for newts, containing no marginal or aquatic vegetation which they ideally need. However, there is a slight possibility that newts may be using the reservoir and the surrounding area and it is advised that a survey is undertaken at the appropriate time of year by a qualified consultant. If newts are found measures will be required to prevent their movement into the development site when they migrate from the reservoir.

# **Reptiles**

The application site contains some sub-optimum reptile habitat, in the form of the disturbed ground with areas of rubble that could act as refugia.

# **Other Species**

#### **Mammals**

No mammals were recorded.

#### **Invertebrates**

Due to the time of year invertebrates species were very rare. Only a queen White-tailed Bumble Bee *Bombus lucorum* was recorded during the survey. The tall ruderal vegetation within the application site is likely to support a range of common species, although it is unlikely that any notable invertebrates are present in this habitat.

# 4. Assessment of Ecological Value

## The Principles of Site Evaluation

The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe (1977). These are broadly used across the United Kingdom to rank sites, so priorities for nature conservation can be attained. For example, current Site of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.

Primary criteria used in the evaluation of a site are size, diversity, naturalness, rarity, fragility and typicalness. Recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal are regarded as secondary criteria and only noted if they make a special contribution to the interest of a particular area.

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

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

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

Examples
Internationally designated sites or proposed sites such as
Ramsar Sites, Special protected Areas, Biosphere
Reserves and Special Areas of Conservation, or otherwise
meeting criteria for international designation. Sites
supporting populations of internationally important
species.
Nationally designated sites such as SSSIs, or non-
designated sites meeting SSSI selection criteria, NNRs
Marine Nature Reserves, NCR Grade I sites. Those
containing valuable areas of any key habitat identified in
the UK Biodiversity Action Plan. Sites supporting viable
breeding populations of Red Data Book species (excluding
scarce species), or supplying critical elements of their
habitat requirements
Sites containing viable areas of threatened habitats of
importance within a regional context i.e. SNH West, East
or North area, comfortably exceeding SINC criteria, but
not meeting SSSI selection criteria. Sites supporting viable
breeding populations of Nationally Scarce species or
those included in the Regional BAP (if present) on
account of their rarity, or supplying critical elements of
their habitat requirements.
Sites meeting the criteria for a county or metropolitan
area designation (such as CWS or SINC), which may
include amenity and educational criteria in urban areas.
Ancient semi-natural woodland. Designated Local Nature
Reserves. Sites containing valuable areas of any key
habitat type identified in the County Biodiversity Action

	Plan (or some Natural Areas) Sites supporting viable breeding populations of species known to be county/metropolitan rarities (e.g. featuring in a county 'red data book' or included in the county/metropolitan Biodiversity Action Plan or some Natural Areas), or
	supplying critical elements of their habitat requirements.
Moderate	Undesignated sites of features considered appreciably to
Local	enrich the habitat resource within the context of the
-Low	Borough or District, or included in the Borough or
	District Biodiversity Action Plan or some Natural Area.
	Amenity and educational functions will be recognised in
	urban areas. Sites supporting viable breeding populations
	of species listed as rare in the District or Borough
	Biodiversity Action Plan or some Natural Areas, or
	supplying critical elements of their habitat requirements.
Low Local	Undesignated sites or features considered appreciably to
-Low	enrich the habitat resource within the context of the
	Parish or neighbourhood (e.g. a species rich hedgerow).
Negligible	Low grade and widespread habitats.
-Negligible	

Using the above criteria and professional judgment and interpretation the site is evaluated as follows.

#### **Habitat Evaluation**

- There are no statutorily designated nature conservation sites, such as SSSIs or Local Nature Reserves (LNR), within or adjacent to the application site.
- The grassland has been subject to much disturbance in the past and only supports remnants of the original pasture. The disturbed sward is locally quite rank and species-poor; comprising mostly commoner grasses and herbs, but areas of more interesting rough grassland with a good variety of grass and herb species are still present. Therefore the grassland is considered of low to moderate local ecological value, probably providing habitat for a range of commoner invertebrates and vertebrates.
- The broadleaved plantation lacks structure and is poor in species diversity. It does provide some habitat diversity within the site and the area as a whole and therefore is considered of low local value.
- The reservoir area is outside of the proposed development boundary.
   Due to the species-poor nature of the habitats supported it would evaluate as of low local value.

### **Rare and Statutory Protected Species**

No nationally or regionally rare or scare plants were recorded.

The site has the potential to support Grass Snakes *Natrix natrix* and possibly Slow Worms *Anguis fragilis*. The site is unlikely to support any other notable or protected species, such as Great Crested Newts or bats.

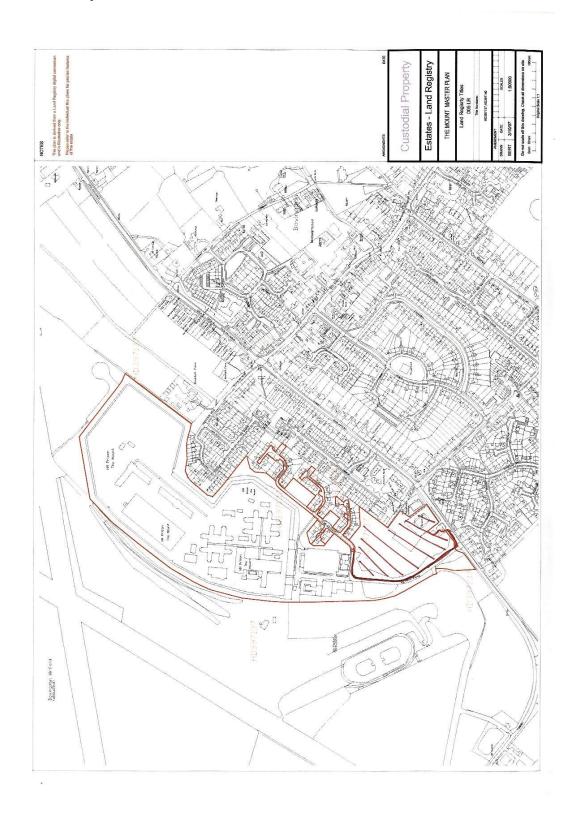
# 5. Conclusions and Recommendations

The site is primarily an area of grassland bordered by a narrow strip of broadleaved plantation. A small reservoir is present to the south-east. The ecological value of the site can be summarised as follows:

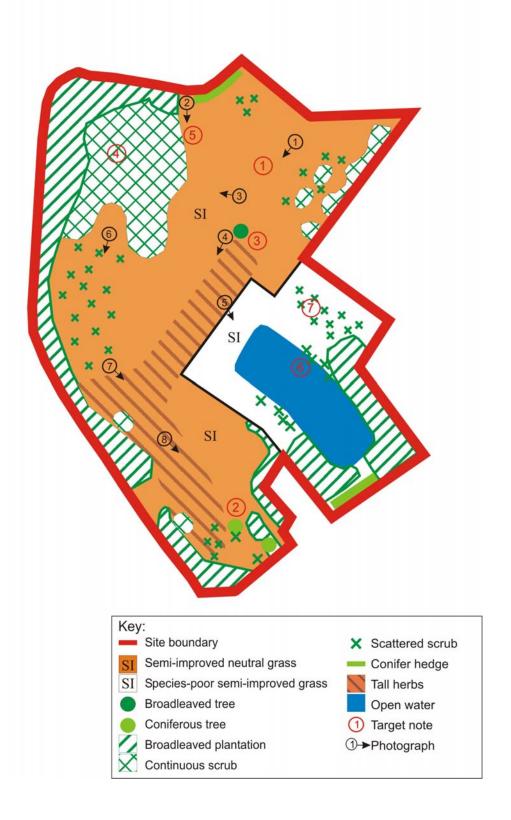
- The grassland has been subject to much disturbance in the past and only supports remnants of the original pasture. The sward is locally rank and quite species-poor, comprising mostly commoner grasses and herbs, though it still retains some of its neutral to calcareous character in the more semi-natural areas. Due to the disturbed nature of the majority of the grassland it does not easily fit into the National Vegetation Classification (NVC). The grassland most resembles the MGI Arrhenatherum elatius grassland type, a community typical of grassland that has been unmanaged over a long period of time.
- The community does supports several Hertfordshire County Wildlife grassland indicator species (see Appendix 3) but these are not sufficient in number to meet the present criteria for County (Local) Wildlife status. Seven indicator species of neutral/calcareous/acid grassland were recorded in total. However, at least eight indicator species of neutral or calcareous grassland, five acid indicator species, or twelve indicators of mixed grassland type, are required for a site to qualify as a County Wildlife Site.
- The broadleaved plantation at present is of limited ecological value but this will increase as it mature. In addition, this habitat will provide a valuable screen to any development within the site and should be retained.

- The reservoir is not part of the land being considered for development.
- No scarce or specially protected species were found during the survey but, as a precaution it is advised that protected species surveys are undertaken before any redevelopment of the site.
- Overall, it is judged that the proposal site is of low to moderate local ecological value but this is not considered to be significant enough to prevent development of the site.

# Appendix I Location Map



# Appendix 2 Phase I Habitat Map



# Appendix 3

Botanical	Species List – land at Th	e Mount		
Indicator species: C–calcareous grassland, N-neutral grassland, A–acid grassland				
		Abundance	Indicator	
		(DAFOR)	species	
Annual Meadow-grass	Poa annua	R		
Ash	Fraxinus excelsior	O-LF		
Barren Brome	Bromus sterilis	R		
Beech	Fagus sylvatica	LF		
Bent grass	Agrostis sp.	0		
Black Medick	Medicago lupulina	R		
Blackthorn	Prunus spinosa	O-LD		
Bramble	Rubus fruticosus agg.	O-LD		
Broad-leaved Dock	Rumex obtusifolius	LF		
Bush Vetch	Vicia sepium	0		
Campion	Silene sp.	R		
Charlock	Sinapis arvensis	R		
Cherry Laurel	Prunus laurocerasus	R		
Cleavers	Galium aparine	F-LA		
Cocksfoot	Dactylis glomerata	F		
Colt's-foot	Tussilago farfara	R		
Comfrey	Symphytum sp.	LO		
Common Bird's-foot-trefoil	Lotus corniculatus	R-LO	C/N	
Common Chickweed	Stellaria media	R		
Common Couch	Elytrigia repens	R		
Common Field Speedwell	Veronica persica	R		
Common Knapweed	Centaurea nigra	LF	C/N	
Common Vetch	Vicia sativa	0		
Cow Parsley	Anthriscus sylvestris	LA		
Crack-willow	Salix fragilis	R		

Creeping Bent	Agrostis stolonifera	R
Creeping Buttercup	Ranunculus repens	R-O
Creeping Cinquefoil	Potentilla reptans	R
Creeping Thistle	Cirsium arvense	O-LF
Curled Dock	Rumex crispus	O-LA
Current	Ribes sp.	R
Cut-leaved Crane's-bill	Geranium dissectum	R
Daffodil	Narcissus sp.	R
Dandelion	Taraxacum officinale agg.	R
Dog-rose	Rosa canina	R-LO
Dogwood	Cornus sanguinea	R-O
Elder	Sambucus nigra	R
False Oat-grass	Arrhenatherum elatius	F-LD
Field Maple	Acer campestre	LF
Field Rose	Rosa arvensis	R
Garlic Mustard	Alliaria petiolata	R
Goat's-beard	Tragopogon pratensis agg.	R
Greater Plantain	Plantago major	0
Grey Willow	Salix cinerea agg.	R
Ground Elder	Aegopodium podagraria	LF
Ground Ivy	Glechoma hederacea	R
Hairy Bitter-cress	Cardamine hirsuta	R
Hairy Tare	Vicia hirsuta	O-LF
Hawk's-beard	Crepis sp.	R
Hawthorn	Crataegus monogyna	0
Hazel	Corylus avellana	0
Hedge Bedstraw	Galium album	O-LF
Herb Robert	Geranium robertianum	R
Hogweed	Heracleum sphondylium	R
Holly	llex aquifolium	R

Horse Chestnut	Aesculus hippocastanum	R	
lvy	Hedera helix	O-LA	
Lawson's Cypress	Chamaecyparis lawsoniana	R-LF	
Lesser Celandine	Ficaria verna	R-O	
Lesser Stitchwort	Stellaria graminea	R	A/N
Lords-and-Ladies	Arum maculatum	R	
Meadow Vetchling	Lathyrus pratensis	R-LO	N
Mugwort	Artemisia vulgaris	R	
Nipplewort	Lapsana communis	R	
Oxeye Daisy	Leucanthemum vulgare	R-O	C/N
Pedunculate Oak	Quercus robur	0	
Perennial Ryegrass	Lolium perenne	R-O	
Perforate St John's Wort	Hypericum perforatum	R	
Poplar	Populus sp.	R	
Prunus	Prunus sp.	R	
Ragwort	Senecio jacobaea	R	
Red Clover	Trifolium pratense	0	C/N
Red Dead-nettle	Lamium purpureum	R	
Red Fescue	Festuca rubra	R-O	
Ribwort Plantain	Plantago lanceolata	0	
Rough Meadow-grass	Poa trivialis	R-LO	
Salad Burnet	Sanguisorba minor	LO	С
Silver Birch	Betula pendula	LF	
Spear Thistle	Cirsium vulgare	R	
Stinging Nettle	Urtica dioica	O-LA	
Wayfaring-tree	Viburnum lantana	R	
Wild Carrot	Daucus carota ssp. carota	0	
Wild Cherry	Prunus avium	O-LF	
Wild Teasel	Dipsacus fullonum	R	
Willow	Salix spp.	LF	

Wood Avens	Geum urbanum	R
Yarrow	Achillea millefolium	R-O
Yorkshire Fog	Holcus lanatus	R

# Appendix 4

# Target Notes - refer to appendix 2 for locations

I	Rough sward with False Oat-grass dominant of interest due to the
	presence of Salad Burnet and large anthills of the Yellow Meadow Ant
2	A planted Cherry Laurel Prunus laurocerasus and Lawson's Cypress.
3	Semi-mature willow, probably a Crack Willow Salix fragilis.
4	Area of very uneven ground with dumped spoil/rubble colonized by
	scrub, Bramble and some tall herbs. Areas of shorter grass are also
	present. The scrub is dominated by Hawthorn and Rose with some
	willow, Dogwood and Field Maple plus rare ornamental shrub species.
	Bramble is also locally abundant. Common Nettle is dominant in places
	on the western edge. Some garden escapes are present in the dumped
	spoil including Daffodils Narcissus sp. and a species of Comfrey.
5	Area of dumped spoil, etc. alongside the northern access into the site
	(see Photo 5).
6	Willows on the eastern bank collapsed into the reservoir.
7	Area partly overhung and heavily shaded by a line of trees, mainly Ash,
	along the outside of the boundary. Numerous sapling Ash are present in
	the poorly vegetated open area closer to the reservoir.

# Appendix 5 Site Photographs

See The Phase I Map (Appendix 2) for the location of the photographs.

Photo I



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8

