



ENVIRONMENTAL STATEMENT
FOR THE MANAGEMENT
AND USAGE OF SITE WON
SOILS AT THE FORMER DAREFIELD COLLIERY

Sustainability

The movement and reuse of topsoil within the development will not constitute waste and is regarded as best practice, reusing a valuable resource.

The reuse of soil is an important factor in the Waste Strategy and will consequently contribute to breaking the link between economic growth and waste growth with the dual benefits of reduced environmental impact and the preservation of natural resources

Soil is a vulnerable and essentially non-renewable resource. One hectare of topsoil, the most productive soil layer, can contain up to 5 tonnes of living organisms and because it can take more than 500 years to form a 2cm thickness, it is in practical terms non-renewable.

The inclusion of root material and other organic content is seen as good as these contain much of the micro flora required for healthy tree growth. Organic matter is also essential to providing good structure and holding the soil together, this will help with erosion control on sloping areas and provide drainage thereby preventing water logging and development of anaerobic zones.

Provided the material is handled appropriately and not compacted it will provide a growing medium to replicate existing growth on other areas of the site.

Methods

A Material Management Plan (MMP) will be developed as part of the Site Waste Management Plan (SWMP), to demonstrate how the materials will be used and recorded.

In summary the MMP provides:

- A description of the materials in terms of potential use and relative quantities of each category underpinned by an appropriate risk assessment
- Details of where and, if appropriate, how these materials will be stored
- Details of the intended final destination and use of these materials
- Details of how these materials are to be tracked
- Contingency arrangements that must be put in place prior to movement of these materials

Soil will be applied using best practice to avoid compaction and over handling, minimising mechanical damage and keeping the material aerated.

When replacing top-soil, loose tipping using a shovel and truck is generally recommended as compaction is minimised. This avoids running over the

replaced soil with any heavy plant. It has the advantage of removing the need to undertake ripping or further cultivations, especially where woodland is the final end use.

There should be no material larger than 50mm in any dimension included in the top soil.

Summary

The soil is uncontaminated,

All soils will be reused within the development.

The soil is not waste or surplus to requirements.

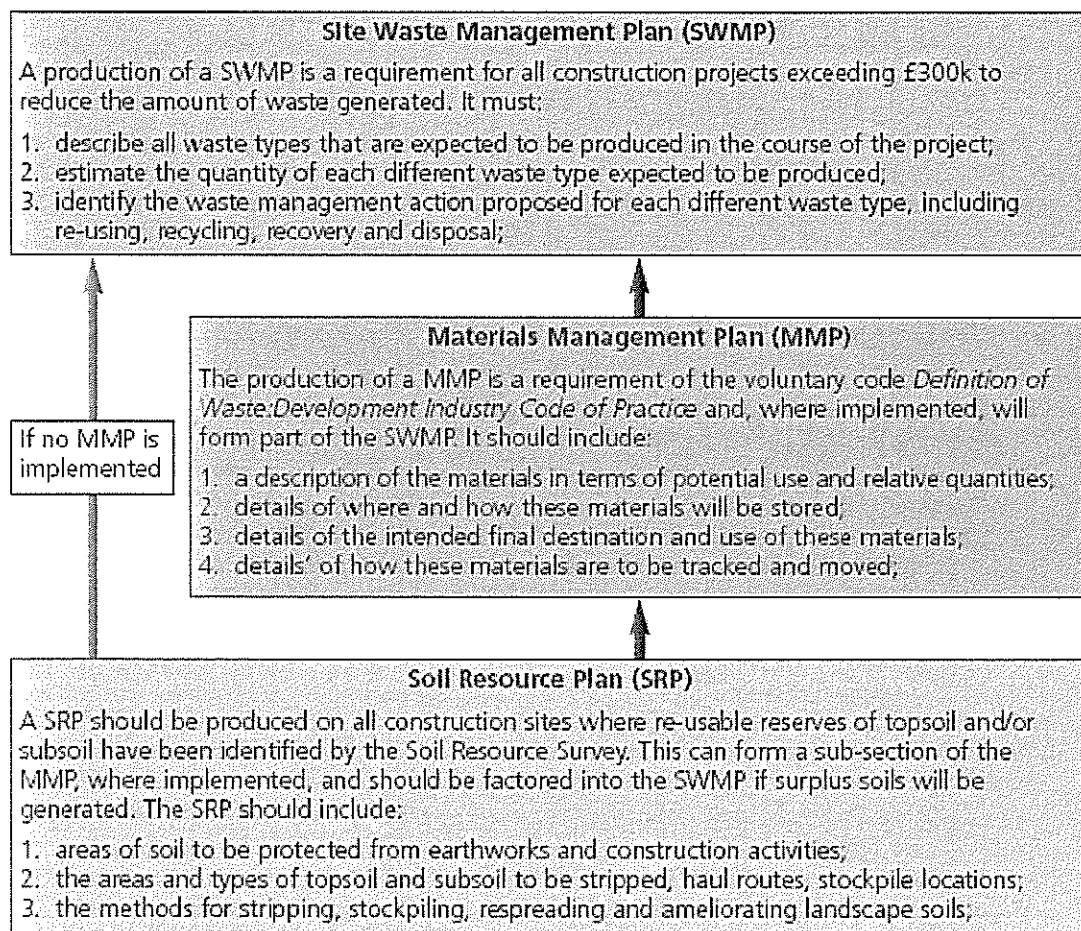


Figure 1 Relationship of MMP & SRP to SWMP



Expanded Limited

Contract:
Wombwell ALC
Barnsley

Method Statement for:

**Off Set tree planting and associated engineering
Works**

Reference No. 001

Revision	Prepared by	Date	Approved by		Date
2	C Buckley	15/07/10	Name		
			Signature		



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1.0 Introduction

This method statement will describe fully the procedures to be adopted for the off site planting works at Wombwell ALC, Barnsley. Activities to be undertaken are:

1. Initial site setup
2. Tree removal and chipping / mulching
3. Laying of mulched materials on two sites

All activities undertaken will be in accordance with the relevant specification(s).

Reference should be made to other method statements for some of the activities listed above, e.g. Tree removal and inspection and test plans for this contract.

2.0 Scope of Works

This method statement outlines the method of carrying out various activities connected with the off site tree planting works and alterations to the landscaping levels at the site of the future Wombwell ALC in Barnsley.

The works comprise:

- 1) Works on the ALC site which do not form a part of this application and which are being carried pursuant to the main outline for that site
- 2) Tree removal at the ALC site.
- 3) Chipping and mulching of trees and tree roots
- 4) Deposition of the mulched trees on the two application sites
- 5) Landscaping works to the two application sites
- 6) The creation of two new agricultural access tracks through the Netherwood Road application site.

3.0 Programme

Enabling works will commence September 2010 and continue through to February 2011 and is broken down as follows:

- 1) Tree removal and chipping: approx. 10 weeks



- 2) Transfer and deposition of chipped trees remains on application sites: approx. 9 weeks for Netherwood Road and approx. 6 weeks for Littlefield Lane.
- 3) Construction of new agricultural access points (Netherwood Road only): approx 4 weeks.
- 4) Tree planting: approx. 2 weeks for Netherwood Road and approx. 2 weeks for Littlefield Lane.

4.0 Methodology

The outline controls are listed here all three sections will be covered at a later date by a comprehensive Method Statement, Risk Assessment and Inspection and Test Plan on release of construction drawing and information which is required to plan fully.

4.1 Site Set Up: Main ALC Site

Initially the welfare facilities and office facility will be set up on the site frontage with Pit Street. This will constitute of individual jack leg type cabins arranged so to separate the pedestrian routes around these cabins with vehicular traffic passing the offices. A separate car park will be made available for staff and operatives so that no impact or nuisance is caused to surrounding residents and commuters using Pit Street.

The works to erect the permanent site enclosure fencing will commence the fencing layout can be seen in Appendix C. The initial site fencing will be Heras type fencing double clipped, at intervals along the fencing a triangle arrangement of three panels will be erected to inhibit third parties pushing over the fencing and to prevent instability in high winds. The fencing will be erected prior to any tree removal works being undertaken to ensure isolation of the area from the public. During the erection any diversions of footpaths will have signage erected on the fence to advise user of the country park of the diversion route.

The Trans Pennine Trail (TPT) will remain open at all times and should not be affected by the application proposals. In the unlikely event that crossing this route is required, then a crossing point will be established with a gateman to control the public / site traffic interface and ensure security of the site by not allowing unauthorised access to the site. The gateman will also ensure that the TPT remain clear of any debris so not to cause slip and trip risk to the general public.



Some enhancements to Pit Street are required to accommodate the construction traffic, such as the traffic light controlled crossing of the narrow River Dove bridge and associated lay by required. These will be constructed during the enabling phase as soon as details have been worked up and agreed with all relevant parties. All traffic management to Chapter 8 and operatives will possess Street Work certification again these works will be covered by a comprehensive Method Statement and Risk Assessment on construction details being produced.

4.2 Tree Removal and Recycling Methodology: ALC Site

There are extensive areas of trees to be removed on the ALC site to allow the scheme to be constructed and these will be removed by a specialist contractor. No green material will be disposed of with all chipped material being incorporated and placed in the two fill areas.

The trees will be felled by chainsaw or mechanical shear fitted to a hydraulic excavator. The tree will be lifted mechanically and fed into a forestry chipping machine that will chip the tree into wood chips. This will be continued until all trees in the clearance area marked on construction drawings have been felled and chipped.

The root ball of the trees will be moved using either a grab or bucket attachment on a hydraulic excavator. Loose soil will be shaken from the roots and the root balls placed in a wind row. A forestry mulcher will be then used to chip the root balls down to wood chip by tracking across the wind row. The mulched root balls will be stockpiled for onward transport to the application sites.

At all times operators will wear the required ear defenders in and around the chipping plant. When using chainsaw the operators will be trained in the use and maintenance of the saws. All saws will be refuelled within a drip tray. Face masks and Kevlar trousers will be worn by the chainsaw operators.

4.2.1 Existing Services

During the tree removal works there may be live services present in the ground in certain areas of the site. These include existing drainage and statutory undertakers' services. All existing services are detailed on statutory undertakers' drawings which will be sourced prior to starting works. These drawings will be updated as the project progresses to act



both as an As Built record but to enable avoidance of services during future works.

Should services be encountered, some excavation work may be necessary in close proximity to these services, prior to removal of the tree root balls. When this is the case a survey will be carried out by a site engineer through consultation of drawings and by using CAT scanning equipment if necessary, to determine the positions of all services before work starts.

4.3 Transfer of Materials to the Application Sites

4.3.1 Working Methods

Tree removal will be undertaken in accordance with the methods described at paragraph 4.2.

There are two deposition areas- one adjacent to Netherwood Road (Area 1) and one adjacent to the Trans Pennine Trail, close to Littlewood Lane (Area 2). Appendix C provides location plans.

The vehicles will cross the ALC site on a haul route constructed from stone placed on top of a geotextile membrane to allow removal on completion. Vehicles will be directed by a marshall to the place of loading. The material will be excavated by hydraulic excavator and loaded for transportation. All loads will be sheeted.

4.3.1.1 Netherwood Road

The mulched tree roots will be moved from the location of the new ALC buildings to this site. Prior to any material being moved the fill area will have fencing erected to secure the area.

The materials will be placed on top of the field as is. No excavation on the application site will be involved.

The material will be moved by road lorries along Pitt Street and Netherwood Road. Wheel washing facilities will be available at both access points on Netherwood Road.



The lorry will tip the mulch as directed by the vehicle marshal. All vehicles will pass through the wheel washing facility prior to travelling on Pitt Street. The lorries will return to the ALC site, again going through the wheel washing facility when exiting the Netherwood Road site. A road sweeper will also be in attendance during the muck shifting operation to ensure the road remains free of debris.

Agreed enhancements of new gates, fencing cattle grid, hedge row planting and the new agricultural access tracks will be constructed.

Tree planting will commence on completion of the aforementioned works.

4.3.1.2 Littlefield Lane

The general working methods will be as for the Netherwood Road application site.

Prior to any materials being moved, the top soil will be removed from the application area and set aside for reuse in this area, to be placed once all mulched material has been moved to site and layered.

Material will be loaded from the storage area on the ALC site and transported to the Littlefield Lane site. A vehicle marshal will direct vehicles as required.

The mulched roots will be placed directly on the exposed soil. Once this activity is complete the topsoils will be replaced.

Planting will occur directly into the fill material, through the replaced topsoil.

The material will be moved by all terrain dump trucks across the site on the route shown on the vehicle routing plan. The river crossing will be enhanced so that such vehicles can cross the river.

4.3.1.3 Existing Services

During the excavation works there may be live services present in the ground in certain areas of the site. These include existing drainage and statutory undertakers' services. All existing services are detailed on statutory undertakers' drawings which will be sourced prior to starting works. These drawings will be updated as the project progresses to act



both as an As Built record but to enable avoidance of services during future works.

Some excavation work may be necessary in close proximity to these services. When this is the case, a survey will be carried out by a site engineer through consultation of drawings and by using CAT scanning equipment if necessary, to determine the positions of all services before work starts.

4.3.1.4 Setting Out

All setting out will be undertaken by a Site Engineer from the contract drawings. Where necessary, areas of working will be marked using spray paint, stakes, profiles, etc, and will be monitored as the work progresses and re-marked as required.

4.3.1.5 Formations

Any open workings left by tree removal will to be fenced with pedestrian guardrails.

4.3.1.6 Environmental

During the excavation works well maintained plant will be used and the engines will be turned off during periods of inactivity or breaks. Any vehicles leaving site will do so after the wheels have been jet washed, if required.

Records of any waste removed from site will be maintained and the data entered into the site waste management plan.

All fuels will be stored within a bunded tank and be refuelled at a designated refuelling point where a spill kit will be available, this will be located more than 10m from any drains. Operatives refuelling will be trained in the use of this spill kit. Any CoSHH materials arising from servicing of equipment will be removed from site by the

5.0 Risk Assessment

See Appendix A.



Weather conditions will effect the works and supervisors will inspect the site after extreme rainfall prior to works re-commencing. Operatives will inspect the area of working prior to access. Works will cease if there is a snowfall.

6.0 Control Measures & Supervision

6.1 General

All operatives will attend a general site induction prior to commencement of work on site. Operatives will also receive task specific briefings for all tasks in which they involved including this method statement. These briefings will be delivered by the works supervisor / foreman or a member of the site management team.

Each specific activity will be overseen by a dedicated supervisor who will ensure that all procedures to satisfy requirements for safety and quality are adhered to.

6.2 Working methods

No works will commence until all existing services in the immediately affected area have been located and a Permit to dig has been issued.

Where support vehicles are required, no persons will undertake any work within the earthwork support system until a Permit to Load has been issued.

If required, edge protection will be installed as works progress. Edge protection will be in the form of metal pedestrian guardrail.

If necessary, a more permanent system will be installed. This will be formed using Heras fencing double clipped with 'Danger Deep Excavation' signs fixed to the fencing.

No materials or equipment will be stored within 2m of any works in order to prevent surcharging to the sides of the area and items falling into the working area.

6.3 Plant

Items of plant (excavators, dumpers etc.) will only be operated by persons who are qualified to do so. All plant operators must hold relevant CPC cards. Plant movements will be controlled by a vehicle banksman. Pedestrian access will be segregated from all plant routes / working areas.

6.4 Personal Protective Equipment

All persons on site will wear the mandatory hard hat, safety boots, high-visibility vest, gloves and safety glasses. Additional items of personal protective equipment will be used for certain tasks – requirements will be detailed in Task Sheets or Method Statements.

6.5 Quality

Quality will be controlled by the site engineering team. Checklists and record sheets will be used to ensure that all works are carried out in accordance with the relevant specifications. The site engineering team will follow the procedures set out in the inspection and test plan for the tasks covered by this method statement.

In the event that any part of works is not carried out in line with the relevant specification(s) a Non Conformance Report (NCR) will be issued and remedial works will be undertaken in order to bring the quality of the work to a satisfactory level.

7.0 Resource

Resources will fluctuate related to the task at all times there will be a blue hat supervisor in control of the activity at any time.

8.0 Environment

If there is a prolonged dry period then wetting down of haul roads and all work areas will be used to control the dust produced by the movement of plant. During period of inclement weather pumping of water ingress may need to be undertaken. This water will either be pumped to area to be lost to evaporation or pumped into a settlement tank and then to a foul manhole.



9.0 Emergency Procedures & Contacts

Wombwell ALC Project Emergency Procedures & Fire Plan will be formulated prior to a start on site and a copy will be available in the site project filing system.

First Aider on site details will be posted on the site notice boards, at all times a member of staff on site who holds a full 4 day first aid certificate will be on site.



Expanded Limited – Wombwell ALC, Barnsley
Method Statement Number 001
Enabling Works

Appendix A

Risk Assessment



Appendix B

Permit to Excavate Template
Permit to Load Temporary Works Template



Expanded Limited – Wombwell ALC, Barnsley
Method Statement Number 001
Enabling Works

Permit to Load / Unload

Project Name:	Project Number:
Section:	Permit Number:
Temporary Works Item:	Design Ref (Drawing Number):

Permit to Access

The item of work described has been inspected and approval is given for use as a working platform. (Includes requirement to access during erection of the temporary works where instability may occur, or any other circumstance where the TWC deems a hold point is appropriate.)

Section:					
Supervisor Signature:					
Date:					

Permit to Load

The temporary works described have been erected in accordance with design data, method statements, associated task sheets and risk assessments and all necessary checks carried out.

TWI Signature:	Name:	Date:
TWC Signature:	Name:	Date:
Copy to TWC/Supervisor		

Permit to Unload

(Note: TW must not be unloaded unless both stage 1 and stage 2 have been signed off)
Stage 1 - All safety measures in accordance with method statements, task sheets and risk assessments have been executed and checked, e.g. Hole protection, leading edge, etc.

Supervisor Signature:	Name:	Date:
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Stage 2 - All necessary checks have been carried out and the temporary works described may be unloaded in accordance with the method statement, risk assessment and task sheets.



TWC Sign:	Name:	Date:
		Copy to TWC/Supervisor
Verifying documents:		
Notes/special instructions:		

PERMIT TO EXCAVATE

LAING O'Rourke

1. Request: Location:

Valid From:	Date:		Time:		Valid To:	Date:		Time:	
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APPROVAL / DENIAL FOR WORK TO PROCEED

Restrictions:

Hand Dig Only	Y / N
Temp Works	Y / N
Services Identified & Marked*	Y / N
Services Diverted	Y / N
NRASWA	Y / N
Confined Spaces	Y / N

Other Issues:

Traffic Management	Y / N
Project Management	Y / N
Muck Away / Stored	Y / N
Other (see attached)	Y / N

*Service drawings to show live and isolated services. All services to be considered live, unless proved otherwise by service provider.

AUTHORISATION / ACCEPTANCE

Permit Issuer: _____

Date: _____

Permit Receiver: _____ Date: _____

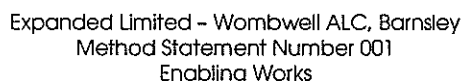
Permit Receiver to ensure Supervisor & Method Statement in place to control works.

CHECKLIST FOR PERMIT TO EXCAVATE

COMMENTS

Control Measures (tick if applicable, insert n/a if not)

Competent supervisor is appointed

[illegible]

CLOSE OUT

Completed / Stopped / Cancelled	Name:	Time / Date:
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Appendix C

Drawings



3E Brooks Ecological Ltd
Cost effective advice

**Ecological Assessment of
Proposed Landscape Planting Plots and
Riparian Mammal Pre-construction Survey at;
BSF Foulstone and Wombwell, Barnsley**

Report reference: BE-R-0778-01
July 2010



Report Title: Ecological Assessment Broomhead Estate,
Wombwell, Barnsley

Report Reference: BE-R-0778-01

Reviewed and approved for issue
Peter James Brooks BSc (Hons) MA MIEEM CEnv
Director

Date 14.07.10

High Street House, 2 High Street, Yeadon, Leeds, LS19 7PP
Phone **0113 250 6101**
Fax **0113 250 6944**
Email: pjb@brooks-ecological.co.uk

Registered in England Number 5351418

Summary Statement

No evidence of protected or notable, including riparian species was found: works can go ahead with little risk of affecting such species.



Introduction

Brooks Ecological Ltd was commissioned to produce an Ecological Assessment of 2 plots of land near the proposed BSF Foulstone and Wombwell site, Wombwell, Barnsley. In addition, following the recommendations of a previous ecological survey from 2007 by Tim Outlaw Freelance Ecologist; Ref/TWO0044/005, a pre-construction survey of the banks of the River Dove eit side of the location of the existing and proposed new bridge was undertaken to check for any protected species.

The assessment presented here was based upon an Extended Phase 1 Habitat Survey of the plot and nearby habitat and a desk study encompassing the wider area. The purpose of the assessment was to identify potential for the site to contain important habitats or species, and consider if development would have a significant impact upon local biodiversity.

Part 1: Desk Study

A desk study was carried out to identify species or habitats that are considered important in a local context and to identify any species recorded locally that may be associated with the application site. This information can be used to help target groups that need to be considered in more detail in order to identify the ecological baseline for the application site. Due to a lack of a consolidated ecological records centre for the area the previous ecological assessment along with its additional survey results have been used to help inform the baseline for this assessment.

MAGIC search

A search of the MAGIC website was undertaken. The MAGIC site is a Geographical Information System that contains all statutory (e.g. Sites of Special Scientific Interest [SSSI's]) as well as some non-statutorily protected habitats (e.g. Sites of Importance for Nature Conservation [SINCs]). It is a valuable tool when considering the relationship of a potential development site with nearby important habitats.

Biodiversity Action Plan (BAP)

The local BAP is the Barnsley Biodiversity Action Plan

The following priority species are listed

- Great Crested Newt (*Triturus cristatus*)
- Skylark (*Alauda arvensis*)
- Bittern (*Botaurus stellaris*)
- Linnet (*Carduelis cannabina*)



- Corn bunting (*Miliaria calandra*)
- Song Thrush (*Turdus philomelos*)
- White-clawed Crayfish (*Austropotomobius pallipes*)
- Grey Partridge (*Perdix perdix*)
- Twite (*Carduelis flavirostris*)
- Little Ringed Plover (*Charadrius dubius*)
- Bluebell (*Hyacinthoides non-scripta*)
- Glow Worm (*Lampyrus noctiluca*)
- Barn Owl (*Tyto alba*)
- Lapwing (*Vanellus vanellus*)
- Water Vole (*Arvicola terrestris*)
- Brown Hare (*Lepus europaeus*)
- Otter (*Lutra lutra*)
- Pipistrelle Bat (*Pipistrellus pipistrellus*)

The following priority habitats are listed:

- Upland Oakwood
- Lowland Mixed Deciduous Woodland
- Wet Woodland
- Wood Pasture and Parkland
- Hedgerows
- Arable Field Margins
- Floodplain Grazing Marsh
- Lowland Meadows
- Lowland Dry Acidic Grassland
- Lowland Heathland
- Upland Heathland
- Blanket Bog
- Purple Moor Grass and Rush Pasture
- Reedbeds
- Ponds
- Rivers
- Open Mosaic Habitats on Previously Developed Land

Data Search

The National Biodiversity Network was searched for records of protected or notable species within 1km of the application site. A single record of whiskered bat from found from c.1km beyond the site boundary. There are records of water voles from no closer than 200m north of the application site in an adjacent km square within the grid square ref SE3904.

Aerial Photography and Detailed Map Study

Aerial photographs published on commonly used websites were studied to place the site in its wider context and to look for ecological features that would not be



evident on the ground during the walkover survey. This approach can be very useful in determining if a site is potentially a key part of a wider wildlife corridor or an important node of habitat in an otherwise ecologically poor landscape. It can also identify potentially important faunal habitat (in particular ponds) which could have a bearing on the ecology of the application site. Ponds may sometimes not be apparent on aerial photographs so we also refer to close detailed maps that identify all ponds issues and drains. We use Promap Street + scale maps for this purpose.

Three ponds are located within 500m of the site. Two of these are large fishing ponds located c. 85 and 250m from Plot 2 respectively and a single entirely shaded woodland pond immediately to the south side of Pitt Street between the 2 plots. These ponds were included within an amphibian survey as part of the previous assessment and no important amphibian populations, particularly great crested newt were recorded.

As the suitability of these pools for great crested newt has not improved since these surveys were undertaken i.e. high fish populations and heavy shading etc., along with the poor potential terrestrial habitat offered by both plots (i.e. heavily managed grassland both cut near to turf during the site visit), it is considered reasonable to discount their presence in both areas.

The creation of woodland blocks in both sites would only increase habitat connectivity in the area and their creation would not result in any severance of existing wildlife corridors.



Part 2: Extended Phase 1 Habitat Survey

Introduction

The survey was carried out on the 9th of July 2010 by an experienced field ecologist and full member of the Institute of Ecology and Environmental Management (IEEM).

Survey Method

The extended Phase 1 survey is a description of habitats based upon the plant species present and also includes evidence of or potential for the presence of legally protected or notable faunal species/groups (e.g. invertebrates). The survey followed a Phase 1 habitat survey methodology (JNCC, 1993) and was extended to assess faunal potential. This involves walking the site, mapping and describing different habitats (for example: woodland, grassland, scrub). Evidence of fauna and faunal habitat is also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995).

Results

The application site consists of 2 plots, one immediately north of Pitt Street adjacent to a bridleway (plot 1) and the other to the south of the Dove Valley Trail a couple of hundred metres to the south (plot 2). Both plots are dominated by grassland habitat and are subject to extensive management.

The following range of habitats was found within the application sites:

Plot 1;

- Improved Grassland
- Plantation Woodland

Plot 2;

- Semi-improved amenity grassland

Plot 1

This plot consists almost entirely of one recently cut improved hay field and a strip of an adjacent field, to the west running alongside the hedge bordering Pitt Street consisting of apparently identical habitat.



Whilst the recent cut has made it more difficult to assess the exact species survey of the remnant of the sward plus investigation of the margins meant that an accurate assessment of the field's value was possible.

The sward was dominated by common grass species including: perennial rye-grass (*Lolium perenne*), meadow foxtail (*Alopecurus pratensis*), timothy grass (*Phleum pratense*), Yorkshire fog (*Holcus lanatus*) and cock's-foot (*Dactylis glomerata*). Herb species were extremely limited with occasional creeping thistle (*Cirsium arvensis*), dandelion (*Taraxacum* agg.), ragwort (*Senecio jacobaea*), common vetch (*Vicia sativa*), common sorrel (*Rumex acetosa*) and hairy tare (*Vicia hirsuta*).

Additional species found only in the uncut margins included: false oat-grass (*Arrhenatherum elatius*), stinging nettle (*Urtica dioica*), cleavers (*Galium aparine*), hogweed (*Heracleum sphondylium*) and bindweed (*Calystegia* sp.).

In one small area at the base of the slope is an area that is partially bare and clearly becomes regularly waterlogged which included a small amount of marsh foxtail (*Alopecurus geniculata*) in the sward, although no other damp condition indicators were present.

In the south-east corner of the field is a small section of plantation woodland extending into a hedge line along Pitt Street, forming the boundary of the field to the road. This woodland area is immature with a poorly developed ground flora.

Tree and shrub species present include: ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*), alder (*Alnus glutinosa*), white willow (*Salix alba*), willow (*Salix* sp.), field maple (*Acer campestre*), dogwood (*Cornus sanguinea*) and hazel (*Corylus avellana*). The ground flora is dominated by ash seedlings with bramble (*Rubus fruticosus*), hogweed, cow parsley (*Anthriscus sylvestris*) dandelion and willowherb (*Epilobium* spp.).

Plot 2

This plot forms part of a larger amenity area and includes a single habitat type; semi-improved amenity grassland.

The grassland is subject to frequent and close mowing throughout summer months at least leaving a sward of just a few millimetres in height. As with the previous plot the assessment of the habitat was undertaken from the remnant sward and uncut margins.

The sward is dominated by meadow grasses (*Poa* sp.), perennial rye-grass, fescues (*Festuca* sp.), Yorkshire fog and common bent (*Agrostis capillaris*). The herb content includes daisy (*Bellis perennis*), white clover (*Trifolium repens*), plantains (*Plantago lanceolata* and *P. major*), dandelion, hawkbit (*Leontodon*



sp.), common knapweed (*Centaurea nigra*), ragwort and frequent bird's-foot trefoil (*Lotus corniculatus*).

Whilst this grassland is more diverse and has a higher intrinsic value than the other plot it has clearly been relatively recently created from seeding and its heavy management reduces its value.

Fauna

No evidence of important faunal populations was recorded within or adjacent to either plot. The dominance of both sites by heavily managed grassland makes it unlikely that any such populations would occur.

None of the trees in the corner of plot 1 have any potential roosting sites for bats.

No ponds or watercourses occur within the site boundary and neither plot holds potentially valuable terrestrial habitat for amphibians.

Low numbers of common breeding birds may occur within the woodland section of plot 1.

Invasive species

No invasive species were recorded within either plot.

Part 3: Riparian Mammal Survey

The original survey undertaken as part of the ecological assessment by Tim Outlaw found no evidence of protected riparian mammals species – water vole and otter but indicated that there was potential – both species to occur within the affected section. As a result a recommendation was made to resurvey the site prior to works commencing in order to confirm that neither species had colonized in the intervening period.

The survey was undertaken on both banks for a distance of c.50m either side of the old bridge and new bridge locations.

Evidence searched for included: water vole burrows, latrines and feeding evidence as well as otter spraints, holts, couches or feeding remains.

No evidence of either water vole or otter was located within the surveyed section and it is therefore concluded that the proposed works (if undertaken in the near future i.e. within 1 year of the date of this report) would not currently impact upon individuals of either species or their local populations.

Overall Evaluation and Recommendations

The application sites hold heavily managed species-poor habitats consisting of common species typical of the area and are considered to be of low ecological value. No sign of any protected species was found within the site and the site has low potential for any such species to occur.

The woodland section of Plot 1 may hold small populations of common breeding bird species but these would not form a significant part of local populations of any of the species likely to occur e.g. wren, blackbird, dunnoek, chaffinch etc.

The findings of this survey and desk study demonstrate that there is little risk of impacting upon protected or notable species assuming standard precautions are followed.

The creation of woodland blocks within the two plots, using native species of local provenance are used, is likely to result in an increased ecological value to the area as it will connect woodland blocks and offer a disturbed natural habitat in areas currently subject to high levels of human activity. In time mature woodland in these areas has the potential to provide habitat for a range of protected species including badgers, bats and designated bird species.

No protected riparian mammal species are currently present with the locations of the existing and proposed bridges over the River Doe. The works involving these bridges would not therefore result in impacts upon either water vole or otter. The findings of this survey are considered valid for 1 year from the date of this report after which an additional update survey should be undertaken to again confirm that neither species has since colonised the area.

Figures



Figure 1.

Part of Plot 1 field with hedgerow leading to small woodland section to right.



Figure 2.

Majority of Plot 1. Looking south from near northern edge. Woodland section in far left corner with hedgerow along Pitt Street running right from it.



Figure 3.

Plot 2 from north-east corner. Plot extends to distant trees in centre of picture but only includes short mown grass area.



Figure 4.

Riparian habitat west of existing bridge near proposed location of new bridge.



Figure 5.

Riparian habitat east of
existing bridge.