

# ROYAL ORDNANCE, BISHOPTON



REMEDICATION AND RECLAMATION EARTHWORKS

## ENVIRONMENTAL STATEMENT

### APPENDIX 14.14

#### WILDLIFE CONSERVATION PLAN AND FILE (FIRST DRAFT)

October 2006

FORMER ROYAL ORDNANCE SITE, BISHOPTON  
**WILDLIFE CONSERVATION PLAN**

DRAFT

September 2006

**BAE SYSTEMS**

Environmental Services

**Cass Associates**

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# SECTION 1

## Introduction

This report sets out a mechanism by which wildlife concerns associated with the former Royal Ordnance site, Bishopton, will be addressed throughout the full scope of the redevelopment process – from the design and planning through site work to hand over and beyond. It is proposed that it is employed not least because it provides clarity for the construction team at critical stages in the redevelopment of the site - which includes decontamination and remediation of land and buildings and involves the translocation of species and the creation and enhancement of habitat over a planning application boundary of close to four square miles. It also provides clear lines of responsibility to ensure that the project authorised is implemented, with the works, decontamination, remediation, construction practices, mitigation measures and enforcement procedures with regards to the protection of wildlife and biodiversity in general, as agreed.

Aspects of wildlife protection are increasingly covered by regulations and guidelines<sup>1</sup>, notably the Wildlife and Countryside Act (1981) The Nature Conservation (Scotland) Act 2004. Certain habitats and associated wildlife are protected by ‘umbrella’ species legislation, such as for the great crested newt, *Triturus cristatus*, a European protected species<sup>2</sup>. There is, however, no mechanism to ensure that wildlife concerns are addressed in a holistic manner, in both the design and implementation of development, other than by reference to a Code of Construction Practice, which as the name suggests, applies during construction, and to the resources and expertise of the likes of hard-pressed SNH conservation staff and their officers, who in turn rely on the availability and comment of specialists. The role of the Environmental Regulators is also often confined to scoping and post-application submission comment, with, occasional inclusion within the post-development management monitoring.

In searching for an appropriate mechanism, the Construction (Design and Management) Regulations (1994) provide a tried and tested legislation-led process, with clear structure, definitions and accountability for health and safety issues, understood by developers, the construction industry and regulators alike. This report employs the same structure to ensure that issues of wildlife welfare are similarly addressed throughout the entire development process, with the aim of:

1. At the earliest stage, accommodating wildlife needs, to be considered across all of the development and not just in areas set-aside for protected species, which necessitates the bringing together of engineering, remediation, construction and landscape design at an earlier stage - promoting the likes of sustainable drainage systems (SuDS);
2. Establishing a clear hierarchy and chain of responsibility, which is vitally important throughout the course of the development, to ensure that all workers within the project are aware of their responsibilities and the legal issues, and to ensure that a means of reporting on-site findings/ incidents is available and for appropriate action then to be taken swiftly to address the situation;
3. Providing for structured, continuing monitoring, which needs to be fed back into the design and construction process with agreed mechanisms at the planning stage to allow for appropriate amendment;
3. Creating records, kept in a log of on-site wildlife observations and incidents throughout the duration of the development project, which can be passed on to inform the ultimate owners of the site as a complete ‘Wildlife File’;

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<sup>1</sup> Government Circular, Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System (ODPM 06/2005, Defra 01/2005).

<sup>2</sup> European plant and animal species are protected under the Conservation (Natural Habitats &c) Regulations 1994.

4. Managing habitats, which may have commenced before or during development. The management regime should be adjusted to suit changing wildlife responses whilst effectively continuing post development (and, thus, provide valuable ecological information that can inform other similar developments).

This new structure will be particularly important at the former Royal Ordnance site, Bishopton development project where the remediation and construction process will take place over a period of approximately 15 years. In particular, as the future dynamics of protected species and impacts of development cannot be fully predicted over this period, there is a potential here for conflict with European legislation without a clear, enforceable structure that provides for appropriate response.

This structure also allows for development of the mechanisms of monitoring and implementation, such as a GIS-based monitoring/ management regime that could be instantly accessible and inform site work, and for a better understanding for instance of 'disturbance distances' for wildlife. The proposals and outcome of the work can also be closely monitored throughout the duration of the development by individuals with expertise in this field and provide for refinement of habitat creation and conservation, whereby chance or unpredicted but beneficial outcomes can be assimilated in the design.

### **Project Background**

The site has been active in the manufacture of ordnance since the First World War. Initially, activity was concentrated in the south or Georgetown area of the site, but extended north and the southern facility closed with the onset of the Second World War. Over several years, manufacture has halted on the site with only an Environmental Test Facility (ETF) now active within the former site boundary. As a result of the decreasing site activity, including maintenance, and the protection afforded by the high levels of security within an Ordnance site, the area has developed an increasing degree of biodiversity, with a number of protected species, badgers and, more recently, otters colonising or making increasing use of the site.

### **Programme Details**

The site is now subject of a proposed redevelopment for housing and commercial premises in a planned-for and managed expansion of the existing village of Bishopton and a publicly-accessible area of Woodland Park. The planned remediation and redevelopment is projected to extend until 2022. The work will include remediation in the decontamination and removal of buildings and earthworks associated with remediation and the proposed redevelopment. Full details of the proposals and programme are given in the accompanying Environmental Statement.

### **Details of client and consultants**

The project is jointly sponsored by BAE Systems and Redrow, with BAE Systems Environmental Services providing expertise in the remediation and earthworks. Cass Associates are the lead consultancy in the masterplanning of the redeveloped site but with the Forestry Commission providing input to the formulation of the Woodland Park.

### **Details of existing Records/ Surveys**

A full list of existing records/surveys is given in the accompanying Environmental Statement.

# SECTION 2

## **BAE Systems Environmental Services & Redrow**

### **Ecology Goals and Objectives**

- Afford all wildlife respect
- Minimise impact on wildlife through development and application of best practice measures
- Understand and manage our ecology impacts through survey and monitoring and seek to enhance the wildlife for the future through sustainable development and the creation of biodiversity.

### **Ecology Strategy**

As part of our long term strategy for the conservation of species we have an overall aim of conserving and, where possible, enhancing ecology with the following objectives:

- To provide species action plans which are relevant and appropriate to the development.
- To set practical, realistic actions and targets so that our contribution to the species on site can be maximised.
- To raise the awareness and understanding of the work to raise its importance among employees, contractors, any environmental partners and the general public.

The plan will be reviewed at least every five years in order to monitor progress towards the aims set. The initial emphasis will be on protected species. The plan is intended to be interpretive, rather than a simple one-off report as knowledge of the species resource develops. The focus may need to shift in order to accommodate new species. Similarly all actions relating to species may conservation may complete and the species moved to a monitoring only status.

### **Performance Goals and Targets**

BAE System's stated aim is to undertake and complete the works to the Best Practice available in Ecology work. The Company will ensure that adequate resources are allocated in order that the aim is achieved and will:

- Safeguard the Ecology on the project.
- Operate systems and processes which identify sources of risk, assess the consequences / probability, evaluate and implement suitable prevention and mitigation measures.
- Involve and encourage all project employees, including subcontractors, to understand and accept the responsibilities placed upon them, thus preventing Ecological incidents.
- Ensure that project Employees are competent to understand the work they have been assigned to do.
- Encourage the free-flow of pertinent information between all parties.
- Determine that subcontractors engaged to execute work are fully competent and are integrated into project operation and controls.
- Meet all relative current legislative requirements pertaining to Ecology.

# SECTION 3

## **Ecology Management Responsibilities**

### **Responsibilities**

#### **The client**

The client will be responsible for implementing his requirements for Ecology on the project. The client will ensure adequate information is available to all parties, to ensure they can perform their duties under the requirements of this document and relevant statutory legislation.

#### **Developer**

The Developer will ensure the competence of the Principal Contractor and set Ecology Goals and Objectives for the project.

#### **Principal Contractor**

Will produce a detailed Wildlife Conservation Plan and clearly set out the contractors management systems for managing the Ecology on the contract in accordance with the client's requirements set out in the tender documents, including risk information and any relevant Ecology legislation.

Will co-operate with the Scottish Natural Heritage and SEPA in all aspects of complying with their duties in the various Ecological legislation.

The Wildlife Conservation Plan will be developed and kept up to date to include the Principal Contractors and other contractor's and subcontractor's ecology control management information as the project proceeds.

Will check the previous Ecology performance of all sub contractors and provide them with the Ecology information they need to carry out the work. Receive their Wildlife Conservation Plan, risk and method statements. Before starting the work will discuss the work with them. We will also monitor their performance while on site.

#### **Contractors and Sub-contractors**

Each contractor will be required to co-operate with the Principal Contractor and provide information on ecology and habitats for inclusion in the Wildlife Conservation Plan prepared by the Principal Contractor. In addition, each contractor and sub-contractor will comply with the site rules and any reasonable instructions by the Principal Contractor, in accordance with current relevant Ecological legislation.

Contractors and subcontractor will provide adequate information to the Principal Contractor for inclusion in the Wildlife Conservation File.

# SECTION 4

## Ecology Audit & Report Forms

### Ecology Target

Targets for Ecology will be set for the project

- The completion of the contract incident free, as far as possible,
- Workforces co-operation in ensuring that Ecology is everybody's responsibility
- A proactive approach to Ecology by the remediation management team
- That Ecology working will be a condition of employment for all contractor organisations

### Monitoring Site Ecology

Monitoring of Ecology on the project will take place in accordance with the client's and SNH requirements.

This may take the form of: Ecology Sampling, Ecology Tours and Ecology Inspections. In addition, our Non-site-based Ecology Team will carry out formal audits as required.

### Typical Inspection Frequency

	2008	2009	2010	2011	2012	2013	2014
Tasks							
Check that suitable inspections are being carried out prior to tree and building works	2 x	2 x	2 x	2 x	2 x	2 x	2 x
Check that only suitable work is being carried out close to Badger setts / water vole burrows / otter couches etc. (appropriate off-set distances etc.)	2 x	2 x	2 x	2 x	2 x	2 x	2 x
Check that ecology inductions are being carried out	2 x	2 x	2 x	2 x	1 x 2 x	2 x	2 x
Check that no work being carried out in 'disturbance zone' around nesting birds during bird-breeding season	2 x	2 x	2 x	2 x	2 x	2 x	2 x
Check that contractors are familiar with site procedures with regards wildlife	1 x	1 x	1 x	1 x	1 x	1 x	1 x

# SECTION 5

## General Ecological Procedures

### Site Remediation Programme – Ecological Considerations

The overriding aim of this document is to ensure measures are in place to ensure the favourable conservation status of European Protected Species within its natural range over the life of the project, but also to ensure the maintenance or enhancement of site biodiversity as a whole.

It is the intention of the developer to use the best ecology practice that exists at that time the works are carried out – therefore all procedures will be subject to improved working methods.

Full ecological surveys have been carried out on the site in order to establish what species are on the site and where they are on the site.

### Legislative Requirements for European Protected Species

The Wildlife and Countryside Act 1981(as amended) and The Nature Conservation (Scotland) Act 2004 provides full protection for certain animal and plant species. Some of these species are further protected as ‘European Protected Species’ under the Regulations 39 and 43 of the Conservation (Natural Habitats &c.) Regulations 1994 and regulations 10 and 13 of the Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations 2004. The species identified below are European Protected Species. This means it is illegal to:

- Deliberately or recklessly kill, injure, disturb or capture / take European Protected Species of animal
- Damage or destroy the breeding sites or resting places of such animals Where it is proposed to carry out work which will affect EPS or their shelter / breeding place, whether or not they are present in those refuges, a licence is required from the licensing authority ( in this case likely to be the Scottish Executive). Three tests must be satisfied before the licensing authority can issue a license under Regulation 44(2) of the Conservation (Natural Habitats &c.) Regulations 1994 or Regulation 14 of the Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations 2004 to permit otherwise prohibited acts.

An application will fail unless all of the three tests are satisfied The three tests involve the following considerations:

- Test 1 - The licence application must demonstrably relate to one of the purposes specified in Regulation 44(2) or Amendment Regulation 14. For development proposals, the relevant purpose is likely to be Regulation 44(2)(e) for which Scottish Executive is currently the licensing authority. This regulation states that licences may be granted by Scottish Executive only for the purpose of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.”
- Test 2 - Regulation 44(3) a) states that a licence may not be granted unless Scottish Executive is satisfied “that there is no satisfactory alternative”.
- Test 3 - Regulation 44(3)(b) states that a licence cannot be issued unless Scottish Executive is satisfied that the action proposed “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” (Scottish Executive will, however, seek the expert advice of Scottish Natural Heritage on this matter).

Consideration of European Protected Species must be included as part of the consent process, not as an issue to be dealt with at a later stage. Any consent given without due consideration to these

species is likely to breach European Directives, with the possibility of consequential delays or the project being halted by the EC.

## **Otter**

Otters have been recorded as using the Dargavel Burn and its tributaries as corridors to cross the site and are visiting the brick ponds adjacent to the entrance toward the eastern boundary. A holt has been established at this location, where there is a supply of fish from the previously-stocked ponds.

There will be some short-term disturbance to part of the range of the otters on site. However this will be limited as the entire site will not be remediate at the same time. The intention is to build SuDS ponds which will supplement the existing ponds which will remain as part of the development. This should enhance the possible suitable area for the otters.

## **Bats**

All species of bat are protected under the Countryside Act (1981) and the EC Habitats Directive (1992), which is implemented in the UK by the Conservation (Natural Habitats &c.) Regulations 1994 and by the Amendment (Scotland) Regulations 2004 ('Habitats Regulations'). This legislation makes it an offence to recklessly disturb bats or recklessly damage or obstruct access to any structure or place that bats use for shelter or protection.

Several surveys have been carried out on site and one pipistrelle maternity roost has been found on site in Dargavel House. There are also records of brown long-eared bats feeding over the brick ponds. It is believed these animals are visiting site from the nearby village of Bishopton. Surveys from July – September 2006 support the understanding that other than the large maternity roost in Dargavel House, bats are entering the site from the neighbouring village of Bishopton.

Dargavel House – No work is planned for this building other than maintenance work, which is similar to the work carried out on the building for the last 60 years. As this is a listed building any work that would have a detrimental effect on the colony would be subject to authorisation.

## **Feeding Habitat**

The site is around 1,000 ha in extent. The development area is approximately one quarter of this.

The area that the development will cover is currently mainly open grass land and spruce woodland. Part of the grassland will remain as a central park. The new development will incorporate the existing site ponds and a number of new ponds (Sustainable Drainage System – SUDS) will be created to enhance the development.

The new development will provide a variety of buildings, which the bats will be able to use for feeding or as corridors to their existing feeding areas.

The main feeding areas around the site are the tree avenues and watercourses and water bodies. These areas will remain largely intact.

## **Demolition and bats**

A large number of buildings will need to be demolished on site. These have been surveyed and found generally not to be suitable for roosting or feeding. The buildings will be search in groups for bat roosts and signs of bat occupation prior to any destructive work commencing in the buildings, following best practice methodology.

If any bats are discovered we would notify Scottish Natural Heritage of the findings and proposed actions. These actions would include a licensed and experienced bat specialist being present to either fit a bat excluder, if a bat is in residence, for an appropriate time (e.g. 10 days in warm weather) or the

building or crevices blocked to prevent the bat returning. In the unlikely event of bats being discovered during the demolition of the buildings, all work will need to cease on that building and a bat worker called to supervise ongoing work

### **Trees and bats**

As part of the development and remediation a large number of trees will have to be removed. Generally, young coniferous plantation that makes up the bulk of the trees on site is unsuitable for roosting bats. However prior to tree removal the trees will be surveyed in groups and any trees that have a potential for having roosts will be left until a full survey can be carried out. If any bats are discovered we would notify Scottish Natural Heritage of the findings and proposed actions. These may include taking the tree down in sections by tree surgeons under the instructions of a licensed and experienced bat specialist and refixing part of the tree in a suitable position.

In order to mitigate the loss of any minor roosts there will be provision of artificial roosts attached to trees which are to be retained in the landscape areas. Typically a total of 6 No wooden boxes and 6 No woodcrete (three per tree as standard practice) should be fixed in appropriate places by a bat specialist. These roosts will be erected to encourage the bats to other feeding areas on site.

Work will be carried out following the principles of the Arboriculture Association Guidance Note 1 and Scottish Natural Heritage's Bat mitigation guide lines

### **Other Important Species found on site are:**

#### **Birds**

Where possible the trees will be felled between September and the end of February to avoid nesting and disturbance of birds. If tree felling takes place outside these times then the trees will be inspected for nesting birds and any trees found to contain nests will be left until the nest is no longer used. Safe working distances will always be applied when working adjacent to potential nest sites during the bird nesting season unless pre-confirmed (timing of survey to be agreed) by a qualified ornithologist.

Buildings will also be checked from March to August prior to demolition for nesting birds. If any are found then the building will be left until the nest is no longer used

#### **Badgers**

Where badger setts are likely to be disturbed by the works they will be fenced off at a radius of 10m with chicken wire mesh or similar (either raised 40cm above the ground level so that the badgers can get under or small gaps left in the fence) to protect them when remediation starts. It is important that the fence is at least 10m from each sett entrance. When a sett is being closed with the agreement of SNH and under licence, the exclusion fencing will extend to ground level and have one-way badger gates fitted.

Where plant and equipment is to be used this is to be kept a minimum of 20m from the sett and if heavy plant is to be used, this is to be kept a minimum of 30m from the sett unless a licence has been obtained.

Setts that are proved to be no longer active will be dug up and destroyed before work starts otherwise it is possible when large machinery begins to move on site disturbed badgers may start to use these setts again.

A number of artificial badger setts will need to be created circa 2008. Plans and locations of all artificial setts will be agreed with SNH on a sett by sett basis. A licence to close the existing setts will be required once planning permission is granted The setts should be closed between July and the end of November

#### **Water voles**

If working in ditches, burns, or other water bodies, the survey for records of water voles/ burrows within the area will be checked in advance. As system of marking (poles or tapes) and/or fencing may be employed to highlight presence of protected species and habitat.

### **Barn Owls**

A number of Artificial Owl Boxes will be built around the site (typical 3 No) to off set the loss of existing buildings on site. The location of nesting birds will be closely monitored by qualified individuals throughout the works to ensure that there is no disturbance to nesting birds.

## **Site Ecology Procedures and Policies**

### **Tree Removal**

Before any trees are removed these will be checked for nesting birds and bats. Where there is to be work near to an active badger sett, the sett will be fenced off to prevent authorised access

### **Burning of building**

Before starting work in the building these will be checked for nesting birds and bats

### **Demolition of Building**

Before starting work in the building these will be checked for nesting birds and bats

### **Ground works**

Before starting work in the area will be checked for nesting birds and badgers

Deep excavations left overnight will be constructed so that any wildlife that falls in can get out safely

### **Water works**

Before starting any works within 3m of the controlled water, the area will be checked for otters, water voles, kingfishers and all other potential protected species.

### **Site speed limit**

The general speed limit on site will be 20 mph. This will prevent the majority of "road kills" on site

## **Environmental issues**

### Noise & vibration

- Where possible all plant should be located away from sensitive ecology noise receptors
- All plant should be switch off when not in use

### Light Pollution

- Lighting should be directed away from areas not being developed or worked upon

### Air pollution

- Idle plant should be switched off to reduce unnecessary emissions

#### Waste Management

- All waste materials are to be tidied away from the work area at the end of each shift
- All waste is to be deposited in the designated skip
- All waste that can harm any wildlife will be removed as soon as possible or fence off

#### Water Pollution

- All fuels and chemicals are to be stored in the designated location and secured to minimise the risk of spillage
- All spillages to be notified to BAE SYSTEMS and spill kits used to contain the spillage
- The servicing of plant shall be carried out in designated areas
- Concrete wagons are only allowed to be washed out at designated points on site to prevent environmental damage from the concrete.

#### Ecology

- There is to be no interference with any wildlife on site

#### Contaminated land

- Any exposed ground that appears contaminated should be reported to BAE SYSTEMS to determine appropriate action.

#### Site Specific Details

- All injured or dead animals found on site are to be reported

## SECTION 6

### Ecology Consultation with the Workforce

BAE SYSTEMS' management systems allow for continuous consultation and co-ordination of the views of people on site by way of regular meetings. Typical site meetings are: -

- Site meeting with the Scottish Natural Heritage
- Site Progress meetings
- Site inductions
- Toolbox talks as and when required/assessed

Ecology matters will be discussed at all the above meetings

In addition BAE SYSTEMS has an open door policy and all site managers can be approached on a completely confidential basis on any matter of Ecology.

BAE SYSTEMS will also display a number of posters in the site offices with information on any particular species effecting that phase of the project

Examples include:

- Badgers
- Bats
- Otters
- Water Vole
- What to do if you find a protected species
- What is a protected species?
- What to do if approached

## **What to do if you find a protected species while working**

### **Do:**

- stop all work in the vicinity immediately
- give it space to move away
- carefully replace any rocks or debris under which the species was found, taking care not to injure it
- do leave all burrow entrance holes and pathways clear
- check what level of legal protection the species has and what can and cannot be done in relation to that species
- contact your manager for advice on how to proceed

### **Don't:**

- attempt to handle any animal, unless it is in immediate danger of injury
- unnecessarily cause any disturbance or distress
- block any escape route or access to a burrow or refuge
- damage any burrow or place of refuge

# What is a protected species?

Certain species of plants and animals in Britain are protected by law. There are different levels of protection under different legislation. In general, for most protected species, it is an offence to kill, injure or disturb the animals, or damage or obstruct access to their place of shelter, whether intentional or not. Fines for an offence can be as much as £5000 per animal and/or up to six months imprisonment.

For levels of protection for individual species please see the legislation spreadsheet in this toolkit.

## **Mammals**

Otter  
Common Dormouse  
Red Squirrel  
Pine Marten  
Wildcat  
All bats  
Water Vole  
Badger

## **Amphibians**

Great Crested Newt  
Natterjack Toad  
Smooth Newt  
Palmate Newt  
Common Frog  
Common Toad

## **Reptiles**

Sand Lizard  
Smooth Snake  
Viviparous Lizard  
Grass Snake  
Adder  
Slow Worm

## **Birds**

All birds, their nests and eggs are protected from being killed, injured, damaged or taken.

## **Plants**

Many plants also have protection under law. It is illegal to pick, collect, cut, uproot or destroy protected plants. Identification of protected plants generally needs a specialist.

## **Invertebrates**

Many invertebrates, such as white-clawed crayfish, beetles and butterflies, are protected under law but identification of these generally needs a specialist.

## **What to do if approached by the police, member of the public or a wildlife group**

### **Do** listen to what they have to say:

- they may have important information regarding a protected species or protected site which may prevent you from unknowingly committing an offence
- many local people have extensive knowledge of the local wildlife and its habits
- do stop work immediately if you think a protected species is present
- do pass on any information they give you to your manager, who will determine if anything needs to be done
- remember that most police forces employ a wildlife liaison officer whose job is to control wildlife crime, they have the power to arrest someone believed to be committing an offence.

**Don't ignore them or assume the information is not relevant to your work.**

### **If you know you are likely to be working in an area with a protected species such as badger, great crested newt, water vole or any reptiles, make sure you have any relevant paperwork:**

- particularly any development licence issued authorising the works to be carried out
- any information available to you to help you identify whether a protected species is present
- any information available to you telling you how to proceed once you suspect a protected species is present
- any information available to you telling you what you can and cannot do in relation to each protected species

# SECTION 7

## **Details of any Design Information and Changes**

Where Designers or Contractors have design input into elements or components of the development their duties will extend to considering the effect on wildlife of the design

Any changes to the design shall be assessed by the designers for potential impact on wildlife on and adjacent to the site and to minimise detrimental effects.

Any changes to design, which have implications to the ecology, will be re-assessed and the necessary measures taken to deal with those changes. If this is not possible the implications will be discussed with Scottish Natural Heritage

# SECTION 8

## **Ecology Competence Assessments**

Discussions on ecology will start before an order is placed on any specialist contractor to ensure the potential contractor has the competence and resources to undertake the works in accordance with the Ecology plan taking into account the site conditions, site rules, interference with other contractor and complexity of the work themselves

Contractors may also be asked to complete our Contractors Assessment questionnaire in order to understand the items above.

# SECTION 9

## **Job Registration Forms and Permits to Work**

### **Job Registration forms**

All Contractors will attend a pre start meeting where the details of the job will be discussed using our Job Registration form (see attached).

All the items of the job will be discussed including Ecology so as to avoid risks to the health and safety of those who may be affected by the work, thereby ensuring a co-ordinated approach to the operations.

**BAE SYSTEMS PROPERTY & ENVIRONMENTAL SERVICES  
CONTRACTOR JOB REGISTRATION FORM**

Sheet 1 of 2

<b>Form Ref. No.:</b>		<b>Location or Project:</b>
<b>Order No.:</b>	<b>Start Date:</b>	<b>Est. Completion Date:</b>

<b>Contractor Information</b>	
<b>Company Name</b>	
<b>Address</b>	
<b>Tel. No.</b>	
<b>Fax. No.</b>	
<b>Contact Name</b>	
<b>Description of Contractor Service</b>	
<b>Total no. of Contractor's Employees on Site</b>	
<b>Materials and Equipment to be used by Contractor</b>	
<b>Potential Hazards involved in the Contract Work (including environmental hazards)</b>	<b>Contractor's Proposed control methods</b>
<b>P&amp;ES Services required by Contractor (by agreement)</b>	
<b>Contractor's Emergency Procedures</b>	

**BAE SYSTEMS PROPERTY & ENVIRONMENTAL SERVICES  
CONTRACTOR JOB REGISTRATION FORM**

Sheet 2 of 2

**P&ES Information**

**P&ES Project  
Manager**

**Special P&ES Rules or Restrictions**

**Site Hazards relevant to this contract are:**

**Permits to Work will operate for:**

**Relevant P&ES Environmental or Health & Safety Procedures and Instructions**

**Registration**

**Signed for the Contractor**

**Date**

**Signed for the Company**

**Date**

# SECTION 10

## **Induction Procedures and Site Rules**

### **Information and Training (Site Rules)**

BAE SYSTEMS operate a system whereby all staff and operatives receive a Site-specific Ecology Induction prior to starting work on site.

Records of the Ecology inductions will be kept on site.

All operatives operating plant or machinery are required to demonstrate competence by the production of an approved certificate or license from a recognised body.

All operatives taking part in Ecology activities are given a further method statement induction specific to their particular activity.

# SECTION 11

## **Ecology Accidents and Incidents.**

The site incident book is located in the main site office

The site Manager will complete an in house Report Form for all incidents on site and guidance will be sought from the relevant consultant/ licensing body where there has been a possible infringement of licensing/legislation.

All subcontractors are required to investigate all incidents and near-miss incidents with regards to protected species and submit a copy of its reports and recommendations to the Principal Contractor.

# SECTION 12

## **Risk Assessments and Method Statements**

Safety Risk Assessments for working with any Ecology species will be kept in the main Health and Safety File

# SECTION 13

## Ecology Site Rules and Induction

### **ECOLOGY RULES FOR CONTRACTORS and VISITORS** **Example**

1. These rules are to ensure you understand the rules for entry to the site. This project is for the demolition of buildings and improvement to areas of the site and includes areas/buildings where Ammunition was manufactured or stored and a number of protected Species are on the site
2. Certain species of plants and animals in Scotland are protected by law. There are different levels of protection under different legislation. In general, for most protected species, it is an offence to kill, injure or disturb the animals, or damage or obstruct access to their place of shelter, whether intentional or not. Fines for an offence can be as much as £5000 per animal and/or six months imprisonment.
3. Protected animals that are on this site include: otters, bats, water voles, badgers, nesting birds
4. The maximum speed allowed on site is 20 mph
5. Do not pump silty/oily water to surface drains or water courses (no work to be carried out within 8m of a water course without permission)
6. Refuelling of vehicles is only permitted in designated areas (with engines off, cold and not in confined spaces)
7. Do not remove barriers or fencing, whether temporary or permanent
8. **Ensure you know the location where you are working** and the position of the nearest radio at all times. Ensure you are familiar with the site, and your company's ecology procedure.
9. You are encouraged to speak to your Supervisor if you have any views on Ecology or if you prefer you may speak to any BAE SYSTEMS Supervisors in confidence. The management for the project is committed to Ecology
10. IF IN ANY DOUBT - ASK FOR INFORMATION OR ADVICE

#### DECLARATION

I confirm, I have been read and understand these rules, and I will conduct myself on this site in a Ecological manner and in accordance with these rules and will read the site notice board for full details of site policies

**Print name here:** \_\_\_\_\_ **Company:**

\_\_\_\_\_

**Signed:** \_\_\_\_\_

**Date:** \_\_\_\_\_.

**A SIGNED COPY OF THESE RULES WILL BE KEPT ON FILE BY THE SITE  
MANAGER Issue .....**

# SECTION 14

## **Emergency and Accident Procedures**

### **Procedures**

Finding injured animals: where injured animals are observed, they must be reported immediately.

Copies of the procedures are to be placed on the site notice board

All contractors are to inform the Principal Contractor of problems in complying with these procedures. Non-compliance and any shortcomings will be noted

Contractors are to ensure that their employees are informed of the site rules and Procedures They must insure their employees comply with them.

### **Important Contact numbers**

Site Manager -

Ecological Consultant -

Scottish Natural Heritage -

# SECTION 15

## Significant Site Ecology Risks

The main risks identified for the overall project are identified below. All actions of this nature will be subject to further investigation.

<b>Ecology Risk Register</b>				
<b>Organism</b>	<b>Feature</b>	<b>Disturbance</b>	<b>Action</b>	<b>Comments</b>
Birds	Active nests	Disturbance of bird on nest, destruction/damage of active nest site	Cease activity and inform site Ecologist immediately	Bird may return to nest if left undisturbed
Water voles	Burrows	Disturbance of burrow	Cease activity and inform site Ecologist immediately	
Badgers	Setts	Disturbance of sett	Cease activity and inform site Ecologist immediately	
Barn Owls	Roost/nest	Disturbance/destruction of nest	Cease activity and inform site Ecologist immediately	
Bats	Roost site	Disturbance/destruction of nest	Cease activity and inform site Ecologist immediately	Do not handle any animals found
Reptiles	Animal	Disturbance/death or injury	Cease activity and inform site Ecologist immediately	
Otters	Holt or couch	Disturbance	Cease activity and inform site Ecologist immediately	
Historic trees	Tree or woodland	Damage to mature trees	Cease activity and Inform Site Manager immediately	

## SECTION 16

**Training Records and Copies of Licences for Ecological work**

**See Separate File**

# SECTION 17

**Records of Ecological Work Undertaken**

**See Separate File**

# SECTION 18

## **Significant Site Ecology Health Risks**

It has been known for a number of animals can carry a variety of diseases.

These include

- Rabies – Bats
- Avian influenza (bird flu) – birds, mink
- Weil's diseases
- Zoo noses
- TB – Badgers
- Tetanus

There is also the physical harm that animals can inflict:

- Bites
- Scratches
- Stings
- Phobias

# SECTION 19

## Ecology File Information

### Provision of Information for the Ecology File

All information for the Ecology file will be obtained from sub contractors, suppliers and as requested by Scottish Natural Heritage or Ecology Consultant.

All the information will be given to the Ecology Consultant to enable him complete the file for handover to future owners of the site

A programme will be agreed with the Ecology Consultant for the provision of information for the Ecology File.

Typical items to be included in the File are: -

- Known locations of animals on site
- Locations of any man made bird, bat, holts, setts,
- Copies of any photographs taken to identify species
- Copies of all surveys carried out on site
- Extents of protected areas and permitted actions

The file will have details of relevant information for future works/maintenance that may be required.

## Bat Action Plan

**Aims:** To maintain or enhance the current bat population and habitat.

**Current Status on site:** see ecology report on Bats

### Factors that may cause a decline in the current population:

- Loss of maternity roost sites in trees, buildings or other structures

From the surveys carried out there should be no loss of roosts as the only maternity roost found is in Dargaval House where no work is planned

- Loss of and disturbance to other roost sites

Hibernation and other seasonal roost sites are unlikely to be disturbed as none have been found on site

- Loss of feeding habitats

Changes in land use can result in loss of insect-rich feeding habitats such as wetlands, woodlands and grasslands

- Disturbance to commuting routes

Flight paths to and from feeding areas and roosts may be disturbed through the loss of flight path features such as green corridors, or through introduction of new features such as artificial lighting

- Artificial lighting

It is still not clear if artificial lighting has any effects on the bat's ability to locate prey or navigate. For pipistrelles, however, there is evidence that lighting might assist the capture of moths and other insects.

-Poor Public Perceptions

Bats have a poor public image

Local Action:

- All buildings and trees with potential for roost sites will be checked in advance of any demolition/feeling/arboricultural works
- Provision of artificial roost sites
- Creation of new habitat
- Maintenance and provision of new commuting routes

## **Barn Owl Action Plan**

**Aims:** To maintain or enhance the current Barn Owl population and habitat.

**Current Status on site:** see ecology report on Barn Owls

**Factors that may cause a decline in the current population:**

- Loss of suitable nesting sites

From the surveys carried out there are no known nesting sites within the development

- Loss of rough grass habitats

A reduction in the habitat available to small animals will reduce the rich feeding areas

- Loss of feeding and resting

A demolition of the buildings on site will reduce the available roosting site

Local Action:

The removal of buildings outside the proposed development area will increase the area of rough grassland in wooded glade type areas. This will increase the provision of suitable feeding habitat.

Provide 3 No Barn Owl nest/roost boxes or Owl Holes will also be set up to militate against the loss of roost site with suitable feeding habitat.

All buildings will be check prior to work being carried out for nests and roosts

## **Otter Action Plan**

**Aims:** To maintain or enhance the current Otter population and habitat.

**Current Status on site:** see ecology report on Otters

### **Factors that may cause a decline in the current population:**

- Loss riverbank and habitat features needed for breeding and resting

From the surveys carried out there is no known Otter Holt on the site

- Disturbance from human activities and development
- Decline in prey due to habitat loss
- Drainage of natural floodplain and wetlands habitats

Local Action:

- Ensure that new bridges over burns have ledges/otter passes incorporated into their design where appropriate
- Create wetland and floodplain areas along existing otter ranges
- Create new waterbodies within SuDS system that would support fish and amphibians
- Consider installing artificial otter holts where appropriate
- Increase the flow along the main Dargaval Burn by closing the diversion
- Where appropriate promote sensitive woodland management and expansion to favour otters
- Create suitable cover (scrub/bramble) for otters along water courses.
- Provide 'conservation areas' within the site in which there will be controlled access by humans.

## **Water Vole Action Plan**

**Aims:** To maintain or enhance the current Water Vole population and habitat.

**Current Status on site:** see ecology report on water voles

### **Factors that may cause a decline in the current population:**

- Loss and fragmentation of habitats

Loss of wetland habitats has reduced populations and may leave the population vulnerable

- Disturbance of riparian habitats

Channelisation and work as part of flood defence management can have an effect on habitat

- Predation by mink

Mink along the water routes can have serious effect on the water voles population

Local Action:

- At an appropriate time trap and remove mink from the site area
- Where Channelisation work is undertaken minimise the effect by maintaining one of the banks in a form suitable for water vole colonisation
- As part of the flood defence create low-lying wetland areas with vegetation cover in order that the water voles can hide. Further increase the wetland area by the creation of SuDS ponds on the edge of the development

### **Badger Action Plan**

**Aims:** To maintain or enhance the current badger population and habitat.

**Current Status on site:** see ecology report on Badgers

**Factors that may cause a decline in the current population:**

- Changes in land use resulting in loss of setts and foraging areas
- Fragmentation of wildlife corridors by new roads
- Increase in road traffic and an increase in road kills
- Removal of woodland areas

Local Action:

- Carry out mitigation measures e.g. artificial setts to replace lost setts in suitable foraging areas and badger tunnels where new roads cross well-used badger paths
- Construction traffic limited to 20 MPH
- The remediation of the site will open up dense, coniferous woodland areas that can be enhanced for badger use.
- Create additional habitat and corridors for badgers around currently farmed land.

### **Habitats Action Plan**

**Aim:** Minimise damage to existing habitat; protect existing valuable habitat; enhance existing habitats, create new habitats.

**Current Status on site:** see Phase 1 Habitat Survey.

**Factors that may cause a decline in habitat value and extent**

- Unintentional destruction of habitat through tracking of heavy machinery

- Removal of habitat in remediation and earthworks

- Timing and sequence of work

Local Action:

- Contractors to follow existing routes, tracks and permitted routes only.
- Contractors to check their location before entering an area or starting work.
- Contractors not to enter protected areas unless specifically instructed to do so.
- Minimise disturbance in areas where work has been sanctioned.
- Removal and deposition of arisings from site work in designated sites or as otherwise instructed.
- Timing of site works according to season and weather to minimise damage
- Use of appropriate machinery
- Where valuable habitat is to be lost in remediation or earthworks, the work is to be delayed until latest practical time.
- Encourage new, biodiverse wetland through excavation, control of surface water drainage/SuDS.
- Create new habitats through planting and management