Ecology and Biodiversity Standard

Contents

1. Introduction ... 3
2. Scope ... 3
2.1 External References ... 3
2.2 Definitions and Acronyms ... 3
3. Unitas Requirements for Managing Ecology ... 5
3.1 Ecological assessment ... 5
3.2 Ecological protection ... 6
3.3 Protected species ... 6
3.3.1 Nesting birds ... 6
3.3.2 Bats ... 6
4.3.3 Badgers ... 7
4.3.4 Reptiles and amphibians ... 7
3.4 Invasive species ... 7
4.4.1 Japanese knotweed ... 7
4.4.2 Himalayan balsam ... 8
4.4.3 Giant hogweed ... 8
3.5 Designated sites ... 8
3.6 Trees and hedgerows ... 9
3.7 Injurious weeds ... 9
3.8 Habitat enhancement ... 9
3.9 Unexpected discoveries ... 9
3.10 Monitoring ... 9
3.11 Incidents ... 10
3.11.1 Enforcement activity ... 10

1. Introduction

The purpose of this standard is to set out the requirements for effectively managing Unitas activities so as to prevent the occurrence of damage or harm to wildlife and ecology in order to comply with legislation and project or contract-specific requirements.

2. Scope

The scope of the SHEMS covers all persons, workplaces and operations in our business.

Exceptions will be documented through a SHEMS appendix B process (SHEMS-FOR-GR-999), authorised by Unitas SHE Director Responsible for coordinating SHE.

The Unitas SHEMS Manual (SHEMS-STD-GR-003) provides guidance and signposting for the compliance, implementation, monitoring, audit and review of our systems, demonstrating continual improvement and achievement of Business objectives.

2.1 External References

- CIRIA Environmental Good Practice on Site Guide (4th edition)
- CIRIA Toolbox Talks
- PPG6 Working on Construction and Demolition Sites
- HTMA Environment Training Videos
- BS5837:2012 Trees in relation to Construction
- Japanese Knotweed Code of Practice
- Magic website - for identifying protected areas / designated sites
- NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity too Trees
- Gov.uk website - wildlife and habitat conservation

2.2 Definitions and Acronyms

Ecology	The study of living organisms and their interactions with each other and the surrounding environments.		
Designated site	There are a variety of European, National and local designations for protection of wildlife:		
	Ramsar	The Ramsar List of Wetlands of International Importance	International
	SAC	Special Area of Conservation	European
	SPA	Special Protection Area	European
	SSSI	Site of Special Scientific Interest	UK
	LNR	Local Nature Reserve	UK
	NNR	National Nature Reserve	UK
	SINC	Site of Importance for Nature Conservation	Local authority
	SNCI	Site of Nature Conservation Importance	Local authority
Designated site	COWS	County Wildlife Site	Local authority
EPS	European Protected Species - protected by European law		

Protected Species	Wildlife species given partial or full legal protection in the UK
Invasive Species	A plant or animal species (generally non-native) found within the UK and which can cause environmental harm.
Suitably qualified ecologist	An individual achieving all the following can be considered to be a suitably qualified ecologist: ▪ Holds a degree or equivalent qualification (e.g. N/SVQ Level 5) in ecology or a related subject ▪ A practising ecologist, with a minimum of 3 years relevant experience (within the last 5 years). Such experience must clearly demonstrate a practical understanding of factors affecting ecology in relation to construction and the build environment; including; acting in an advisory capacity to provide recommendations for ecological protection, enhancement and mitigation measures. Examples of relevant experience are: Ecological impact assessment, Phase 1 and 2 Habitat Surveys and habitat restoration ▪ Is covered by a professional code of conduct and subject to peer review (e.g. IEEM)
TPO	Tree Preservation Order - legal protection given to individual or group of trees by a local authority.
Conservation Area (Planning Conservation Area)	Areas of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance. Designated by Local Authorities. **Not to be confused with a nature conservation area.** Works to trees in Planning Conservation Areas require Local Authority permission.
Biodiversity	Biological diversity is the variety of plant and animal species that inhabit the earth.
Conservation Bodies	Regional government bodies responsible for promoting the conservation of wildlife & natural features: ▪ Natural England ▪ Natural Resources Wales (now cover previous responsibilities of Countryside Council for Wales) ▪ Scottish Natural Heritage ▪ Northern Ireland Environment Agency
Environmental Impact Assessment (EIA)	This is a statutory assessment required for particular types of development under the Town & Country Planning Act. An EIA may require long-term environmental monitoring prior to planning consent being obtained (e.g. noise, traffic, ecology etc.). An Environmental Statement is produced that compiles and summarises the environmental information relating to the development, including: ▪ A description of the development ▪ Outline of alternatives and reasons for the choice made ▪ A description of the aspects of the environment likely to be affected; e.g. population, ecology, soil, water, air, climatic factors, archaeology & heritage, landscape and their interrelation ▪ A description of the likely impacts on the environment ▪ Measures to prevent or reduce environmental impacts The development must comply with the measures set out in the Environmental Statement. The EIA is a different process to the internal environmental aspect & impact assessment process and is not normally under the control or direction of Unitas (except for residential developments where Unitas is the developer).

3. Unitas Requirements for Managing Ecology

For construction CDM F10 notifiable projects (as defined in Construction, Design and Management (CDM) Standard - SHEMS-STD-GR-025), the Project Environmental Co-ordinator must be appointed using the appropriate appointment sheet (Environmental Co-ordinator Appointment Sheet - SHEMS-FOR-GR-004). The person appointed must be a senior member of the project team.

Prior to any works commencing, the potential impacts on ecology and biodiversity by Unitas activities must be assessed in accordance with the Risk and Impact Assessment Standard (SHEMS-STD-GR-014). This assessment must include identifying any control measures required to reduce the impact of our activities

3.1 Ecological assessment

The presence of protected or invasive species or habitats can have significant impacts on costs and programme and must be considered as early as possible at the pre-contract and contract stage.

Reference should be made to any ecological surveys that have been undertaken and included in the pre-start information, this is usually provided by the client, unless Unitas are designing the structure in house. This can be done through desktop study / walk-through etc. The assessment should identify any specific protected species (including bats, badgers, nesting birds, reptiles, amphibians etc.) and the presence of any invasive species, even if managed (e.g. Japanese Knotweed, Himalayan Balsam, Giant Hogweed etc.). Initial surveys are usually referred to as the Preliminary Ecological Appraisal (previously known as a Phase 1 Habitat Survey).

The pre-start information should also make reference to any Tree Preservation Orders, impacts on hedgerows or other project or contract-specific restrictions.

The Environmental Aspect & Impact assessment should consider, and where necessary, record:

- Specific areas to be protected / cordoned (e.g. trees, hedgerows, watercourses, areas of Japanese knotweed) and the protection measures required (fencing, barriers, signage, settlement tanks, interceptors etc.). Details should be marked on a site plan.
- Seasonal timings for survey and mitigation measures (e.g. vegetation clearance, trapping & translocation).Trees and shrubs should only be removed outside bird breeding season (typically Feb-August inclusive) and should be checked for nesting birds prior to removal.
- Seasonal timings for specific activities (e.g. roofing removal affecting bat roosts or vegetation clearance affecting reptiles).
- Whether the site is in the vicinity of designated sites such as identify Sites of Special Scientific Interest (SSSI), Local and National Nature Reserves (LNR & NNRs), Biodiversity Action Plan priority habitats, Special Areas of Conservation etc. To check whether the site is in the vicinity of any designated sites the MAGIC website should be used. Some local designations may not be listed on the MAGIC website and further information may be available on local authority websites.

If works are likely to impact on ecology and wildlife and no information is available prior to start, Unitas should commission an ecological survey undertaken by a suitably qualified ecologist.

Many ecological surveys are restricted to specific times of year, therefore must be considered as early as possible at the pre-contract and contract stage. Mitigation activities (e.g. trapping and relocation of animals) can also be restricted to specific times of year.

Some large developments may require an Environmental Impact Assessment (EIA) under the Town & Country Planning Act. This is an extensive survey and is usually undertaken by clients / developers for the purposes of planning. If an EIA exists, it should be reviewed and any recommendations that follow through into the planning consent must be implemented.

Any project that may affect a Special Protection Area (SPA) or Special Area of Conservation (SAC) will require a Habitats Regulations Appraisal. This should be identified during the planning consent process.

If the project is subject to a BREEAM or other similar assessment, details of specific requirements in relation to habitat protection and enhancement must be identified. A Biodiversity Champion must be appointed for BREEAM projects seeking credits for ecology.

It may be necessary to engage the services of an ecological consultant to provide a ‘watching brief’, or to attend site as required.

3.2 Ecological protection

Potential impacts and control measures must be communicated to all relevant staff and subcontractors. Control measures should be included in relevant subcontractor method statements and risk assessments. Control measures must be monitored to ensure they are in place when required, effective and maintained throughout the works.

Where ecological restrictions are in place, these should be communicated via the site induction and supported by appropriate Toolbox Talks.

3.3 Protected species

Most native UK animal species are protected to some extent by UK legislation. All UK wild mammals are protected from unnecessary suffering and cruelty under the Wild Mammals (Protection) Act 1996 including foxes, squirrels, hedgehogs etc., while some species such as badgers are covered by specific legislation. Any bird nest is protected while it is in use or being built.

Some UK species and their habitats are further protected by European law and these are the species that could have the greatest impact in relation to Unitas activities. These are known as European Protected Species (EPS) and include:

- All bat species
- Great crested newt
- Dormouse
- Otter
- Natterjack toad
- Pool frog
- Smooth snake
- Sand lizard

3.3.1 Nesting birds

It is against the law to damage or destroy a nest that is in use or being built. This applies to all birds. Breeding season is usually considered to be March to August inclusive, but on occasion birds may nest outside of this season.

In the case of feral pigeons and certain other bird species, a general licence can be issued to authorised persons to kill or take the birds and / or nests if the action is for the purpose of maintaining public health.

Any works likely to disturb nesting birds must be undertaken outside of the bird breeding season, e.g. tree or shrub removal. In the case of buildings that may be used for nesting, exclusion measures such as netting should be installed prior to breeding season commencing.

The relevant Unitas Minimum Standard for Nesting Birds (SHEMS-MST-DPS-0043) must be complied with.

3.3.2 Bats

All bat species and their habitats (including roosts) are protected by UK and European law and are known as designated European Protected Species (EPS). Bats often inhabit old buildings, roof and wall voids and trees where there are small access holes or crevices. Bats are not however, limited to these types of structures.

People undertaking bat surveys and some conservation activities on behalf of ecological consultancies must hold the relevant bat licence.

If bats or their breeding / resting places are likely to be disturbed by work activities this should be identified prior to starting and a European Protected Species Mitigation (EPSM) Licence must be issued to appropriately qualified persons (usually working on behalf of the client) for any works affecting bats and their roosts. The conditions may impact on Unitas activities by limiting the periods during which certain activities

(such as demolition) may be undertaken.

In some circumstances following relevant surveys, a Bat Low Impact Class Licence can be obtained where disturbance / capture and roost destruction is limited. Only a Registered Consultant meeting specific criteria can obtain bat Low Impact Class Licences. These licences are subject to a reduced application process and faster application turnaround timescale.

The conditions of any licence issued in relation to works affecting bats must be taken into account when planning the works.

4.3.3 Badgers

Badgers and their setts are protected by UK law and it is an offence to directly disturb a badger sett or to carry out works close to a sett without a licence.

The presence of badger setts on or near to the works should be identified prior to starting. If a licence has been issued in relation to works affecting badgers setts, then this may mean that certain activities are restricted in some areas of the site. For example, excavation in some areas may only be allowed using hand-tools. The conditions of any licence issued in relation to works affecting badgers must be taken into account when planning the works.

4.3.4 Reptiles and amphibians

The presence or likelihood of reptiles and amphibians on site should be identified by ecological surveys. The recommendations of any surveys undertaken may relate to pre-start or on-site mitigation, such as trapping and translocation, and / or exclusion fencing.

There are six species of reptile in the UK and all are protected by UK law. The Smooth snake and Sand lizard and their habitats are also protected by European law due to their rarity.

There are seven species of native amphibians in the UK. Those that are subject to protection from killing, injury, capture or disturbance under European law (i.e. are EPS) are the Pool Frog (found only in East Anglia), Natterjack toad and Great crested newt. This includes damage to habitat. A European Protected Species Mitigation Licence (EPSM) must be issued to appropriately qualified persons (usually working on behalf of the client) for any works affecting European Protected Species (EPS).

The Adder is a venomous snake therefore appropriate health and safety measures should be implemented where they may be present.

3.4 Invasive species

There are a number of invasive or controlled plant and animal species in the UK. Causing the spread of these invasive plants and animals is an offence under UK law. Those plants that are most likely to impact on Unitas's activities are: Japanese knotweed, Himalayan balsam, giant hogweed, rhododendron, cotoneaster, Virginia creeper, montbretia, floating pennywort and New Zealand pigmy weed. Those animals that are most likely to impact on Unitas's activities are the American crayfish, killer shrimp and Chinese mitten crab.

The presence of invasive species should be identified prior to works commencing, but may be discovered during the works. Guidance for identifying many invasive species is available on the Non-Native Species Website. The measures for managing invasive species must be recorded in the Environmental Aspect & Impact Assessment and communicated as necessary. This may include a combination of herbicide spraying, excavation and disposal or containment. Site hygiene measures to prevent the spread of invasive species should be identified. The use of any herbicide near water may require permission from the relevant environmental regulator. Management of invasive species should be discussed with the Business Environmental Manager / Advisor.

Any plant or soil containing invasive plant matter / seeds is waste and must be managed in accordance with the Waste Management Standard (SHEMS-STD-GR-065).

4.4.1 Japanese knotweed

Japanese knotweed can cause damage to road and pavement surfaces and to below-ground structures such as drainage via penetration of the roots or stems. Japanese knotweed is easily spread by mechanical means

as both the rhizome / root and crowns at the stem bases can regenerate rapidly.

A Japanese Knotweed Management Plan should be developed for the site in accordance with Environment Agency guidance. It may not be necessary to employ specialist contractors to manage Japanese Knotweed.

Appropriate barriers and signage must be displayed. Relevant subcontractor method statements must include details of restrictions and site hygiene measures (e.g. cleaning of vehicles, machinery and footwear, haulage route protection and barriers).

4.4.2 Himalayan balsam

Himalayan balsam is a non-native annual plant usually found on riverbanks or waste ground and spreads easily, out-competing native plants. Himalayan balsam requires controls to prevent its spread.

Appropriate barriers and signage must be displayed. Relevant subcontractor method statements must include details of restrictions and site hygiene measures (e.g. cleaning of vehicles, machinery and footwear, haulage route protection and barriers).

4.4.3 Giant hogweed

Giant hogweed colonises many areas of wasteland and riverbank, and its numerous seeds are easily dispersed by water and wind. It can form dense colonies that out-compete native plants.

Contact with the plant can cause skin irritation and should be subject to safety and health risk assessment in accordance with the Risk and Impact Management Standard (SHEMS-FOR-GR-014).

Measures for preventing the spread of Giant hogweed and for protecting workers and others from harm must be implemented. These should be communicated via site induction, Toolbox Talks and included in relevant method statements. Barriers and signage should be used to alert people of the presence of Giant hogweed.

3.5 Designated sites

If works are within a protected or designated site such as a SSSI, Nature Reserve etc., specific requirements and permissions will be required before works can commence.

If the works are within 500m of a SSSI, European designated site or Ramsar site, this may have an impact on obtaining the following:

- Environmental Permits issued under standard rules for the crushing, screening and use of construction and demolition waste (refer to Waste Management Standard - SHEMS-STD-GR-065)
- Environmental Permits (previously ‘discharge consents’) and exemptions for the discharge of groundwater or surface run-off to watercourses or surface water drains (refer to Pollution Prevention Standard - SHEMS-STD-GR-064)

The implications of any designated sites in the vicinity of the works must be assessed and details recorded in the Environmental Aspect and Impact Assessment.

If the site is within or adjacent to a protected area (e.g. SSSI or other designated site) information regarding any associated restrictions must be obtained prior to any work commencing.

3.6 Trees and hedgerows

Tree Preservation Orders (TPOs) are Local Authority designations that can be applied to any type of tree or group of trees assessed as having ecological or other value.

Formal consent must be obtained for any works to a tree that is subject to a TPO. Notification must be made to the relevant local authority at least eight weeks prior to works commencing.

Tree protection should be in accordance with BS5837:2012 'Trees in relation to construction - recommendations'. Where relevant, reference should also be made to the National Joint Utilities Group: guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees.

Trees not subject to TPOs may still require protection during works.

Trees located in Planning Conservation Areas require local authority permission prior to any works being undertaken on the tree, whether subject to a TPO or not. The notification period is usually six weeks.

Some hedgerows are protected by legislation and should be subject to suitable protection measures. Protected status usually relates to the age and ecological value of the hedgerow.

When removing hedgerows, a removal notice may be required from the local authority and if the section to be removed is longer than 20m, planning permission will also be required.

3.7 Injurious weeds

Five native plant species are designated as injurious weeds:

- Common ragwort
- Creeping or field thistle
- Spear thistle
- Broad-leaved dock
- Curled dock

It is not an offence to have these weeds growing on land owned by Unitas and species such as ragwort can have significant conservation benefits. However they must not be allowed to spread to agricultural land, particularly grazing areas.

3.8 Habitat enhancement

Whilst work undertaken by Unitas on behalf of our clients or through our own activities can result in the destruction of both species and habitats, there are often opportunities to enhance or compensate for the loss of habitat. Enhancement or compensation will usually form part of a planning condition or contractual requirement. If not, Unitas should still consider this wherever practicable.

3.9 Unexpected discoveries

In the event of any unexpected discoveries of protected or invasive species that could be impacted by Unitas activities, works must cease and the discovery must be reported to the Environmental Manager/ SHE manager. Specialist advice from a suitably qualified ecologist may be required.

3.10 Monitoring

Monitoring of environmental impacts should be included in weekly site inspections undertaken in accordance with the Audit, Inspection and Weekly Monitoring Standard (SHEMS-STD-GR-008). The monitoring should include any corrective or preventive measure required (e.g. repair of reptile fencing) and most be closed out in a timely manner.

3.11 Incidents

Incidents relating to ecology and biodiversity (e.g. damage to protected species, habitats, trees covered by TPOs etc.) must be reported internally in accordance with the Incident and Near Miss Reporting Standard (SHEMS-STD-GR-011).

3.11.1 Enforcement activity

Contact with relevant environmental regulators (e.g. local authority biodiversity or tree protection officers, Police Wildlife Officer etc.) must be internally reported within 24 hours via the Enforcement Authority Contact Standard (SHEMS-STD-GR-022).