

Landscape and Biodiversity Method Statement

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1. Introduction on how to use this document

Before proceeding with any works that cause disruption to the non-built environment please review this document for information, legal considerations and method statements relating to works carried out in our various habitats on campus.

This document sets out minimum standards, specifications and methods for works that can directly or indirectly impact habitats and/or species.

Before any external works are undertaken, the following procedure must be followed:

1. Project manager identifies all potential impacts on Biodiversity & Landscape using the scope below and by checking the campus sensitivity map.
2. Project manager informs the Landscape, Grounds and Biodiversity Manager of the project, location, estimated timescales and impacts identified.
3. Project manager must then undertake the work in accordance with the method statements set out within this document and any other signposted document.
4. Any deviations from the method statement must be agreed in writing with the Landscape, Grounds & Biodiversity Manager **before** this work is undertaken.
5. Any queries must be directed to the Landscape & Grounds Manager prior to work being undertaken.
6. Compliance with this procedure will be subject to internal and external audit as part of the University's ISO14001 certification

A campus sensitivity map has been produced utilising knowledge from across the University on where we have high interest and vulnerable flora and fauna. This map is updated reactively to new information and surveys so please check the live link before proceeding with any plans and do not rely on printed versions

The map enables us to reduce our impact on the natural environment, meet our legal requirements and improve our estate's biodiversity and bio-abundance.

The map is not publicly available due to the sensitivities of some of the species information included on it.

The map is available to CSE colleagues where their work has potential impact on these areas and species. The campus sensitivities map is available here:

https://www.google.com/maps/d/u/0/edit?mid=1TzhgeVoGIFh95two_5pW9sOZXDWRp2E&ll=51.29636805578786%2C1.0632286499999832&z=16

2. Scope

This procedure covers any external work undertaken on land owned and managed by the University of Kent.

The following types of works and impacts are covered:

Habitat type	Direct Impact	Indirect Impact	Positive Impact
Hedgerows	Removal of all or part of hedgerows, including trimming.	Works involving noise and/or vibrations within 2.5m of hedgerows	Planting of new hedgerows or reinstatement of hedgerows
Woodland	Removal of all or part of trees or understory plants, including trimming	Works involving noise, heavy machinery, and/or vibrations within woodlands or within 15m (or calculated RPA of woodland boundaries Any work within 20m (or calculated RPA of an ancient, veteran or protected tree/woodland area	Planting of new trees or understory
Trees (non-woodland)	Removal of all or part of trees, including trimming.	Works involving noise, heavy machinery and/or vibrations within 15m (or calculated RPA) of tree centres Any work within 20m (or calculated RPA) of an ancient, veteran or protected tree.	Planting of new trees
Ponds, watercourses and wetland features	Work within ponds or work which impacts pond perimeter or volume.	Removal of all or part of pond vegetation (within 50m of pond margins) , including trimming.	Pond restoration works
Grasslands	Removal or significant disturbance (including where turf is cut and replaced) of any grass including amenity grasslands, grass verges, wildflower areas and hay meadows	Use of heavy machinery and/or vehicles in grass areas	Establishment of new lawns, turf or grass areas or reinstatement of grass areas.
Planting	Removal of any plants	Use of machinery and/or vehicles in planted areas	New planting or reinstatement of planting
Wildlife	Any works designed to impact wildlife such as pest control measures	Installation of permanent or temporary night lighting	Installations designed to support wildlife (e.g. bird bricks, bat boxes)
	Any work taking place in HIGH RISK areas as shown by the campus sensitivity map		

Please take the time to read through the full section of habitat you will be working on to ensure you consider all areas of possible impact and opportunities for improvement.

3. Hedgerows

Any disturbance to hedgerows must be avoided during bird nesting season (usually March-September).

All birds, their nests and eggs are protected by law and it is thus an offence to: Intentionally kill, injure or take any wild bird. Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.

3.1. Removal of all or part of hedgerows

Consult with the LGBM for specific guidance during the planning stage. The hedgerow will need to be surveyed within the 24 hour period before work starts.

Surveys can be carried out by the L&G team by prior arrangement, otherwise an external ecologist will need to be brought in. If a nest and/or evidence of breeding is found during bird nesting season, work is legally required to stop until breeding season is over (March – September). If work is taking place near an active nest, you are legally required to protect the nest from disturbance.

Nests can only be moved in certain circumstances and under license - advice should be sought from an ecologist at the time with the specifics of the circumstance.

Once the area has been confirmed for clearance, please refer to the [Soft Landscaping Specification](#) Section 3.9 for the full methodology for hedgerow removal.

3.2. Works involving noise and/or vibration within 2.5m of hedgerows

If any works are to be carried out within 2.5m of a hedgerow, the hedgerow must be surveyed ensuring minimal disruption to wildlife.

Surveys can be carried out by the L&G team by prior arrangement, otherwise an external ecologist will need to be brought in. If a nest and/or evidence of breeding is found during bird nesting season, work is legally required to stop until breeding season is over (March – September). If work is taking place near an active nest, you are legally required to protect the nest from disturbance.

Nests can only be moved in certain circumstances and under license - advice should be sought from an ecologist at the time with the specifics of the circumstance.

Any work inside the 2.5m buffer should be communicated to the LGBM as it has the potential to disrupt the root system of the hedgerow. LGBM will provide clarification whether the hedgerow will require reinstatement works subsequent to the disturbance.

3.3. Planting or reinstatement of hedgerows

Once planting/reinstatement has been agreed please refer to the [Soft Landscaping Specification](#) Section 7.10 for the full methodology for hedgerow planting and reinstatement.

Where reinstatement works are taking place, please consider whether there is an opportunity to improve the area you are working in that enhance the space for wildlife as well as mitigating the impacts of the project.

4. Woodland

Before any work in woodlands take place please consult the campus sensitivity map and contact the LGBM. It is likely that any work in woodlands will require ecologist survey before work can commence due to the complexity of the habitat and presence of protected species.

4.1. Removal of all or part of trees or understory plants, including trimming

4.1.1. Removal of trees

LGBM must agree to any tree removal before any works begin. We are seeking to retain as many trees as possible. Removed trees must be replaced by two new trees (minimum 5 years old). Species and location must be agreed by the LGBM.

Any removal of trees needs to be carried out by a competent person. This can be a member of the L&G team by prior arrangement or a preapproved contractor.

4.1.2. Other tree works

Any other tree works such as limb removal, crown reduction etc... needs to be carried out by a competent person. This can be a member of the L&G team by prior arrangement or a preapproved contractor.

4.1.3. Removal of understory planting

If understory vegetation must be removed please consider how you can minimise the impact on surrounding vegetation.

- Removal should be kept to the minimum area needed to complete the works
- Digging should be kept to the minimum area needed to complete the works to keep seed bank disruption to a minimum and avoid proliferation of aggressive species e.g. nettles, brambles
- Vehicle access is prohibited unless agreed by the LGBM
- Access routes should use ground protection to minimise trampling
- Ground protection should be used to reduce soil compaction by any heavy machinery
- If possible, works should be scheduled in the dormant season

Planting must be trench excavated using hand digging methods. Ground protection must be established as required around retained planting and trees to prevent damage to roots. No roots > 15mm diameter are to be severed.

Spoil to be placed on protective sheeting or boards with sub and top soil kept separate.

Reinstatement of the area should be done to the standard outlined in the [Soft Landscaping Specification](#) Section 7.

4.2. Works involving noise, heavy machinery, and/or vibrations within woodlands or within Root protection area of woodland boundaries

The minimum root protection zone is 15 m from the main stem of the tree or the size of the canopy of the tree (whichever is the larger).

Prohibited zone- 1m from trunk: Excavation of any kind must not take place within this zone, unless full consideration with the LGBM is undertaken, Materials plant and spoil must not be stored within this zone.

Precautionary zone – four times tree circumference: where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with LGBM if in doubt.

Permitted zone – outside of precautionary zone: excavation works may be undertaken within this zone. However, caution must be applied, and the use of mechanical plant limited, any exposed roots should be protected.

4.2.1. Any work within Root Protection area of an Ancient or veteran trees * tree/woodland area

RPAs should be greater for ancient trees and veteran trees. The minimum root protection zone is 20 m from the main stem of the tree or the size of the canopy of the tree + 5m (whichever is the larger).

Prohibited zone- 1m from trunk: Excavation of any kind must not take place within this zone, unless full consideration with the LGBM is undertaken, Materials plant and spoil must not be stored within this zone.

Precautionary zone – four times tree circumference: where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with LGBM if in doubt.

Permitted zone – outside of precautionary zone: excavation works may be undertaken within this zone. However, caution must be applied, and the use of mechanical plant limited, any exposed roots should be protected.

4.3. Planting of new trees

Wherever trees are removed they must be replaced with 2 new trees (consult LGBM for type and location) and plant in accordance with the [Soft Landscaping Specification](#). Section 8.

Bare root forestry stock should be planted when dormant; generally between mid-November and mid-April.

Care in handling planting stock is vital. When planting, make sure plants are not exposed to the wind or sun to cause drying out. In the field, keep plants in the bags and where possible in a shady place.

The ideal size for woodland trees and shrubs is 40-60cm in height sourced either as seedlings or transplants.

4.4. Protection of Wildlife

Our woodlands are home to protected species which require special consideration and there are legal requirements that we must meet when operating in these areas. Due to the sensitivities of some of these species, all works occurring within a woodland or within 30m of known locations of protected species must be communicated to the LGBM before proceeding. This distance extends to 100m for pile driving and blasting works. Depending on the nature of work and exact location, a legal license for works may be needed to proceed.

Our woodlands are also hibernation hotspots for certain species, including the protected Great Crested Newt. All efforts to reduce the impact on hibernacula should be taken and digging kept to a minimum. Where the woodland is within 500m of a Great Crested Newt a legal license for works may need to be obtained.

Please review the [campus sensitivity map](#) before starting works paying particular attention to areas where protected species are marked (in orange). Please consult with the LGBM before starting any work in and around these areas.

Specific locations of some species are not marked due to sensitivities around persecution of these species. Where there are large orange areas on the map please consult the LGBM to prevent illegal activity.

4.5. Improvements

Where reinstatement works are taking place, please consider whether there is an opportunity to improve the area you are working in that enhances the space for wildlife as well as mitigating the impacts of the project.

5. Trees (Standards and coupes outside of the woodland areas)

Please refer to the [campus sensitivities map](#) to identify whether the tree you are working on/near has any additional protections.

5.1. Removal of all or part of trees, including trimming.

LGBM must agree to any tree removal before any works begin. We are seeking to retain as many trees as possible and replace any removed trees with double the number of trees that are at a minimum of 5 years old.

Any removal of trees needs to be carried out by a competent person. This can be a member of the L&G team by prior arrangement or a preapproved contractor.

5.2. Work around trees

Any work inside taking place within a tree's canopy is subject to the same Root Protection requirements that are outlined in section 4. Woodlands. Please refer to the [campus sensitivities map](#) to identify whether the tree you are working near has any additional protections.

Trenches to be excavated using hand digging methods and ground protection as required around retained planting and tree to prevent damage to roots. Where hand digging is specified no roots > 15mm diameter are to be severed.

Spoil to be placed on protective sheeting or boards with sub and top soil kept separate.

Reinstatement of the area should be done to the standard outlined in the [Soft Landscaping Specification](#) Section 6.2.4.

Any damage to understory planting or grass must be reinstated. The LGBM can provide further information or please refer to the [Soft Landscaping Specification](#). Section 7.1.

As far as reasonably possible match existing mulching material.

Remove all arising's from site leaving it in a clean and safe condition.

5.3. Other tree works

Any other tree works such as limb removal, crown reduction etc... needs to be carried out by a competent person. This can be a member of the L&G team by prior arrangement or a preapproved contractor.

5.4. Works involving noise, heavy machinery and/or vibrations within root protection area of tree centres

The minimum root protection zone is 15 m from the main stem of the tree or the size of the canopy of the tree (whichever is the larger).

Prohibited zone- 1m from trunk: Excavation of any kind must not take place within this zone, unless full consideration with the LGBM is undertaken, Materials plant and spoil must not be stored within this zone.

Precautionary zone – four times tree circumference: where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with LGBM if in doubt.

Permitted zone – outside of precautionary zone: excavation works may be undertaken within this zone. However, caution must be applied, and the use of mechanical plant limited, any exposed roots should be protected.

5.4.1. Any work within root protection area of a veteran or high value trees

It is recommended that no construction, including the installation of new hard surfacing, occurs within the root protection area of a high value and/or veteran tree. Please advise the LGBM of which tree/s you are working on/near as an evaluation will need to be carried out. At time of writing these trees have not been uploaded to the campus sensitivities map.

Root Protection Areas should be greater for ancient trees, veteran trees and high risk trees. The minimum root protection zone is 20 m from the main stem of the tree or the size of the canopy of the tree + 5m (whichever is the larger).

Prohibited zone- 1m from trunk: Excavation of any kind must not take place within this zone, unless full consideration with the LGBM is undertaken, Materials plant and spoil must not be stored within this zone.

Precautionary zone – four times tree circumference: where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with LGBM if in doubt.

Permitted zone – outside of precautionary zone: excavation works may be undertaken within this zone. However, caution must be applied, and the use of mechanical plant limited, any exposed roots should be protected.

5.5. Planting of new trees

If trees are removed then the University has committed to planting 2 for every tree removed. Consult LGBM for type and location and plant in accordance with the [Soft Landscaping Specification](#) Section 8.

5.6. Protection of Wildlife

As with hedgerows, we are legally required to prevent disturbance to nests and nesting activity. Any disturbance to trees must be avoided during bird nesting season. All birds, their nests and eggs are protected by law and it is thus an offence to: Intentionally kill, injure or take any wild bird. Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.

Where noise or disturbance is taking place within the canopy zone of a tree, visual inspection must be carried out (not more than 24 hours prior to the work being undertaken) by the L&G team by prior arrangement, otherwise an external ecologist will need to be brought in. If a nest and evidence of breeding is found during bird nesting season the LGBM will advise on how to minimise the impact of this work.

5.7. Improvements

Where reinstatement works are taking place, please considered whether there is an opportunity to improve the area you are working in to enhance the space for wildlife as well as mitigate any impact as a result of the project.

6. Ponds, watercourses, and other wetland features

Due to the presence of the chytrid fungus on site, which can be devastating to amphibian species, any work taking place near a pond must ensure that no material, including that which might stick to a shoe is transferred between ponds.

If material is being removed from a pond where chytrid is present, then the arrangements for how this 'waste' is processed will need to be preapproved as there may be grounds to treat it as a biohazard.

Please refer to the [campus sensitivities map](#) to identify pond location, chytrid risk and protected species presence.

6.1. Work within all wetland features or work which impacts perimeter or volume of wetland features

Works within or around a pond, watercourse or other wetland feature, including restoration, must consider the best time of year for works to take place, in order to minimise the impact on targeted or protected wildlife.

The best time is very dependent on which pond is impacted and therefore which species may be present. It is also dependent on the type of work being carried out, as some work is not possible during certain seasons. Please consult with the LGBM in the planning stage who will be able to advise and consult relevant expertise if required.

The LGBM will need to be informed of works taking place in and around wetland features that could cause noise and vibration disturbance to the wetland feature and its species, this includes, damage and compaction of banks and surrounding areas, damage to vegetation, and the disconnection and isolation due to new infrastructure being put in place

Any works that increase shade over wetland features, or silt within, along with changes to the water table are all a risk to wildlife and the health of our wetland features on campus.

Where work is required, full mitigation statements will be required for how disturbance will be limited.

Where work is required where a protected species is located then a legal license may be required, this is the case for the Great Crested Newt.

6.2. Work in areas surrounding ponds

Mitigation should be taken to reduce the impact on ponds and their inhabitants for works taking place in areas surrounding ponds.

Where possible digging should be avoided during hibernation season (Oct/Nov – Mar/April) and consideration taken as to how any work may disruption wildlife routes (corridors) for species that move between terrestrial and aquatic habitats.

Where digging has occurred all efforts must be made to ensure no run off of spoil is able to enter the pond, and that any chemicals/products used in the work cannot enter the pond or other groundwater routes.

Due to the sensitivities and licensing requirements of some species, all works occurring within 30m of known locations of protected species must be communicated to the LGBM before proceeding.

This distance extends to 100m for pile driving and blasting works. Depending on the nature of work and exact location, a legal license for works may be needed to proceed.

6.3. Removal of all or part of wetland vegetation and/or silt (within 50m of pond margins) , including trimming.

Wetland vegetation and silt can contain important invertebrates so anything removed from a pond/watercourse/wetland feature or its surroundings must be left to sit near the site of its removal to allow invertebrates and other wildlife to move back.

The best location for the silt and vegetation will be site specific and proposed location should be highlighted in your mitigation statement for review by the LGBM. The silt pile should be left for a few days.

Silt or any spoil arising from digging in or around ponds should not be placed so near that rain might cause it to leach back into the pond – consider the lay of the land, and how high your silt pile is to ensure this does not happen.

Once left for a few days, the spoil and/or vegetation should either be allowed to grow over or removed from site completely (note: if leaving vegetation, make sure reeds are removed if the area is damp as they will re-root).

When removing vegetation ensure that around 20% is retained in and around the feature to allow for reestablishment

No material removed should be transferred near or to another feature to avoid biocontamination.

6.3. Improvements

Where reinstatement works are taking place, please considered whether there is an opportunity to improve the pond as part of the project to enhance the space for wildlife as well as mitigate any impact as a result of the project.

7. Grasslands

Please refer to the [campus sensitivities map](#) to identify whether your works are taking place in any grassland areas of biodiversity importance.

Work in any meadow areas (long grass) should be avoided during peak growing season to avoid high impact on seed production, invertebrates, birds and small mammals (May – August).

Use ground protection as required to prevent damage/compaction to lawns and meadows.

If grasslands are damaged, removed etc. then they must be replaced in accordance with the [Soft Landscaping Specification](#) Section 5. Please consider whether the replacement required is amenity turf/seed or meadow turf/seed. The LGBM can provide advice.

When discussing reinstatement works with the LGBM please considered whether there is an opportunity to improve the grassland for wildlife rather than default to restoring as it was before, particularly in the case of amenity grass.

8. Planting

Where planting is removed it must be reinstated in accordance with [Soft Landscaping Specification](#) Section 7.8 Look at opportunities for Biodiversity Net Gain through choosing wildlife friendly species.

- Drought resistance of species
- Native species where possible and compatible with drought resistance priority
- Where the plants are grown and sourced from
- Additional benefits of plant – e.g. high pollen availability
- How much diversity of planting can you pack into an area
- Ongoing maintenance intensity of the planting scheme

9. Other Wildlife Considerations

9.1. Pest control measures

Mitigation statements should be produced stating how reduction in harm to wildlife is being achieved whilst putting in measures to control pest species. All opportunities to manage pests without consequential harm being caused to wildlife should be tried first.

Where activities are contracted out, contract managers should include regular reviews on the harm to wildlife with the contractor and seek guidance where appropriate on whether mitigation activities are enough.

Where changes are made that target pest species, guidance should be sought on how this will impact other species and whether there are reputational impacts to the University.

9.2. Installation of permanent or temporary night lighting

Advice should be sought/surveys carried out to review impact on nocturnal species from certified ecologists.

Where lighting is required for safety purposes, lighting systems that are sympathetic to wildlife should be chosen and minimise light bleed.

9.3. Installations designed to support wildlife (e.g. bird bricks, bat boxes)

When refurbishing, maintaining or constructing within the built environment, consult the LGBM for opportunities for how wildlife additions can be made, such a habitat for birds, bats and invertebrate.

9.4. Protected Species Legislation

There are some species on campus the have specific legislative requirements unique to that species. If works are taking place where a protected species is indicated on the Campus Sensitivities Map, please contact the LGB Manager before proceeding with any works.