

Dormouse Mitigation Strategy

**Land at Thames Way,
Northfleet, Kent DA11 8HN**

Report to:

Speedgreen (Thames Way) Limited

3rd March 2026

Revision 2 (16th March 2026)



Summary

A dormouse survey of land adjacent to Thames Way, Northfleet, Gravesend, Kent, DA11 8HL was undertaken in 2025, to inform the production of a mitigation strategy for a planning application for *Installation of electricity infrastructure including a battery energy storage system, substation and ancillary electrical infrastructure*.

Dormouse evidence was found in five dormouse nest tubes in September and October 2025.

The proposals require removal of dormouse habitat of approximately 0.8ha of scrub and native hedgerow. Through discussions between the ecologist and the applicant, the loss of dormouse habitat has been decreased to 0.5ha of scrub and native hedgerow. To compensate for this habitat loss, it is proposed that land adjacent to the proposed development site and within the applicant's control will provide replacement habitat. This land will be planted with native vegetation and enhanced to promote species and structural diversity, to compensate for the loss of onsite dormouse habitat.

Full details of the dormouse mitigation strategy will be included in the application to Natural England for a dormouse protected species licence and no development will commence until authorised by Natural England.

1. The Proposals

1.1 Site Location

The focus of this report is an area of land adjacent to Thames Way, Northfleet, Gravesend, Kent, DA11 8HL (see Figures 1 and 2).



Figure 1 – Site Location. Google Earth Pro (Image date June 2025)

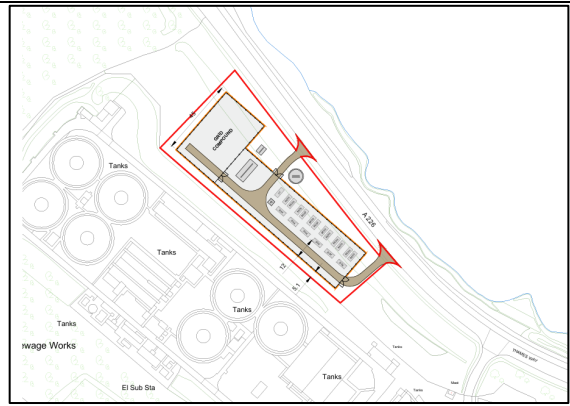


Figure 2 – Revised Indicative Layout Plan. Taken from 'Site Location Plan'(SpeedGreen SG-GRAVESEND-CIV-PLN-100, February 2026)

1.2 Proposed Works

The proposals are for *Installation of electricity infrastructure including a battery energy storage system, substation and ancillary electrical infrastructure*. Habitats to be impacted are primarily scrub, native hedge, ruderal and grassland.

1.3 Background

A dormouse survey of a parcel of land adjacent to Thames Way, Northfleet, Gravesend, Kent, DA11 8HL was undertaken in 2025. Dormouse evidence was found in five dormouse nest tubes in September and October 2025.

This draft Dormouse Mitigation Strategy should be read in conjunction with the Preliminary Ecological Appraisal (Calumma Ecological Services, 2025a), Dormouse Survey Report (Calumma Ecological Services, 2025b) and Biodiversity Net Gain Baseline Assessment (Ecology and Land Management, 2025).

1.4 Hazel Dormouse Ecology

The hazel dormouse (*Muscardinus avellanarius*) is a nocturnal animal that is an arboreal species that mainly inhabits deciduous woodland and scrub. It is a very selective feeder; it feeds on hazel nuts, flowers, pollen, fruit and insects. All these foods are available at different times of year; as a result, dormice must select habitats rich in all these food sources. Except for hibernation, they rarely descend to the ground and are reluctant to cross open spaces (Bright *et al.*, 2006).

The hazel dormouse has declined both in range and numbers across the UK, largely as a consequence of habitat loss and fragmentation arising from changes in woodland management and development.

1.5 Legislation

Habitats and Species Regulations 2017 (as amended)

Dormice are a protected species under the Habitats and Species Regulations 2017 (as amended). It is an offence to:

- Deliberately capture, injure or kill a dormouse;
- Deliberately disturb dormice in a manner which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; to hibernate or migrate; or to significantly affect the local distribution or abundance of the species;

- Deliberately damage or destroy a breeding site or resting place.

[Wildlife and Countryside Act 1981 \(as amended\)](#)

Dormice are afforded full protection under Section 5 of the Wildlife and Countryside Act 1981 (as amended). It is illegal to:

- Intentionally kill, injure or take a dormouse;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- Intentionally or recklessly disturb a dormouse while it is occupying a structure or place used for shelter or protection.

2. Site Assessment

2.1 Habitat Assessment

The site has been described in the Preliminary Ecological Appraisal (Calumma Ecological Services, 2025a) and Biodiversity Net Gain Baseline Assessment (Ecology and Land Management, 2025). The site was surveyed in July 2025 by drone and ground surveying during the BNG assessment. The habitat information below has been taken from these reports.

The vegetation includes extensive areas of dense bramble (*Rubus fruticosus* agg.) scrub, tall ruderal herbs and coarse grasses. Scattered trees and shrubs, including dog rose (*Rosa* spp.), hawthorn (*Crataegus monogyna*), and blackthorn (*Prunus spinosa*), are present throughout. The habitat structure is varied, with a mix of dense scrub, tall herbaceous vegetation and occasional open patches. A native hedgerow forms the southwestern boundary of the site.

Scrub species account for approximately 79% of the vegetation cover, particularly bramble, blackthorn, and other woody species. Self-seeded trees such as ash (*Fraxinus excelsior*), cherry (*Prunus* spp.), and blackthorn are well-established across the site. These trees are gradually forming canopies in certain areas indicating that the site is moving towards a young woodland stage, a transition indicating ecological succession.

The habitats are shown in Figure 3.

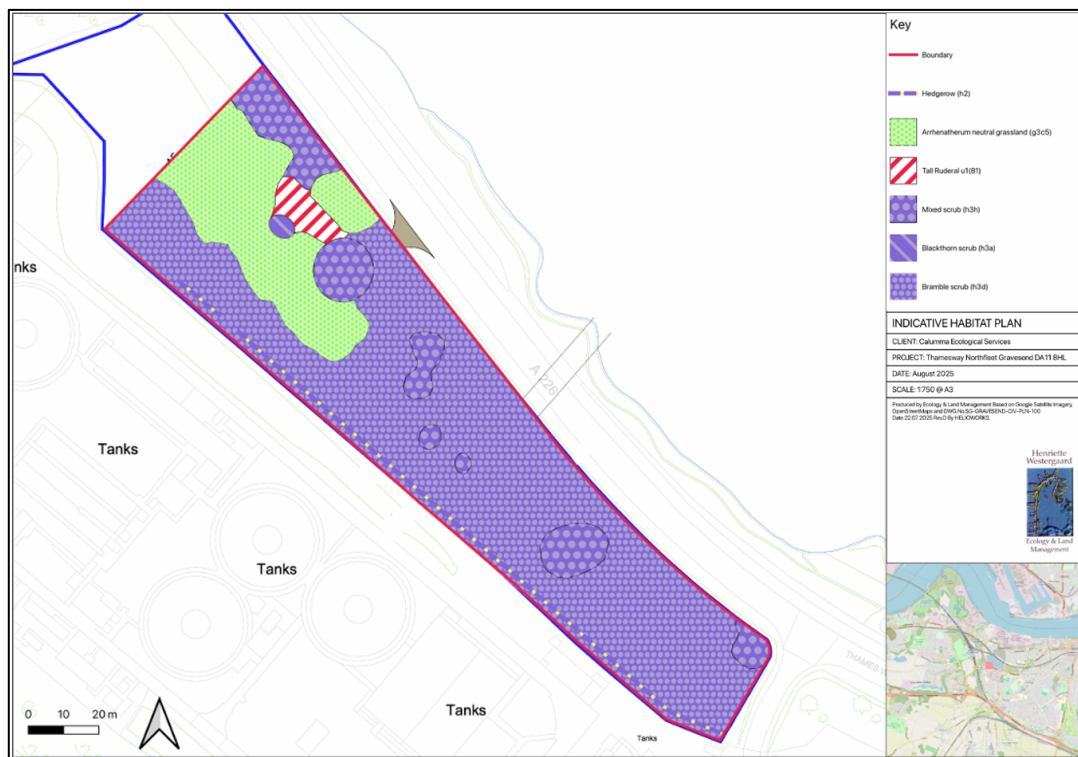


Figure 3 – Indicative Habitat Plan taken from Ecology and Land Management, 2025.

2.2 Habitat Quality Assessment

The habitat quality for dormice was assessed in accordance with Wells *et al.*, 2025, by combining the plant species diversity and structural complexity.

Plant Species Diversity

High	>6 species per hectare of woodland/scrub
Medium	3-6 species per hectare of woodland/scrub
Low	<3 species per hectare of woodland/scrub

Table 1 – Plant species diversity (Taken from Table 3.4 Categories for species diversity, Wells *et al.*, 2025)

Structural Complexity

High	Canopy and understorey layers present and well-connected, with or without scrub layer (e.g. bramble) beneath OR Understorey and scrub generally present and well-connected with canopy sparse or absent.
Medium	Understorey layer generally present, with sparse or absent canopy and scrub layers OR Scrub with developing understorey and/or canopy trees
Low	Canopy present with sparse or absent understorey, with or without scrub layer OR Scrub present, with sparse or absent canopy and understorey above

Table 2 – Structural complexity (Taken from Table 3.5a Structural complexity, Wells *et al.*, 2025)

Quality Assessment

		Diversity		
		High	Medium	Low
Complexity	High	Excellent	Good	Fair
	Medium	Good	Good	Poor
	Low	Fair	Poor	Poor

Table 3 – Habitat Quality (Taken from Table 3.6 Quality Assessment, Wells *et al.*, 2025)

According to the quality assessment in Tables 1, 2 & 3, the species diversity is **high** (>6 species), and the structural complexity is **medium**, resulting in a **good** habitat value for dormice.

The Site is shown in Photographs 1 & 2.



Photograph 1. Accessible vegetation on the site perimeter, along Thames Way (30th September 2025)



Photograph 2. Accessible vegetation on the site perimeter, along Thames Way (30th September 2025)



Photograph 3. T30. Empty dormouse nest (30th September 2025)



Photograph 4. T25. Empty dormouse nest (28th October 2025)

3. Impact Assessment

3.1 Impacts

Due to the optimal habitats within and surrounding the site, it is assumed that all connected scrub, hedgerows and woodlands within and adjacent to the site are likely to be used by dormice, for breeding, resting, foraging and/or dispersal.

Unmitigated, the proposals will affect the local dormouse population through killing/injury of individuals, habitat loss and disturbance.

- The risks of killing/injury and disturbance will be addressed with specific timing and supervision of the habitat removal.
- Habitat loss will be addressed with a robust mitigation plan and the installation of dormouse nest boxes.

4. Mitigation

4.1 Mitigation Hierarchy

The mitigation hierarchy is a widely accepted framework used in UK planning policy and environmental regulation to manage the impacts of development on biodiversity. It is structured as a sequence of steps that must be considered in order of priority:

- **Avoid** – Prevent impacts on biodiversity wherever possible, through careful site selection and design.
- **Minimise** – Reduce the extent of any unavoidable impacts through design and management changes.
- **Mitigate** – Implement measures to reduce the severity or duration of impacts on habitats and species.
- **Compensate** – Where impacts remain after avoidance and mitigation, provide biodiversity gains elsewhere to ensure no net loss, or ideally, a net gain.

4.2 Avoid

Following the mitigation hierarchy, it is not possible to avoid any impacts as the proposal requires removal of dormouse habitat.

4.3 Minimise

The proposed development is the installation of electricity infrastructure including a battery energy storage system, substation and ancillary electrical infrastructure. The design of the proposed development as shown in the planning application drawings is preliminary. Due to the complexity of designing the layout of electricity infrastructure sites the final detailed design will be confirmed subsequent to a decision being made on the choice of technology and further input from both the National Energy System Operator (NESO), the distribution network operator (DNO) and the relevant fire authority in this case Kent Fire and Rescue Service. These inputs will have a direct bearing on the site layout. Nonetheless, a preliminary review of recent technological developments in battery energy storage indicates that the footprint of the proposed development can be reduced from 0.9908ha to 0.7288 ha. This will reduce the loss of dormouse habitat from 0.8ha to 0.5ha of scrub and native hedgerow.

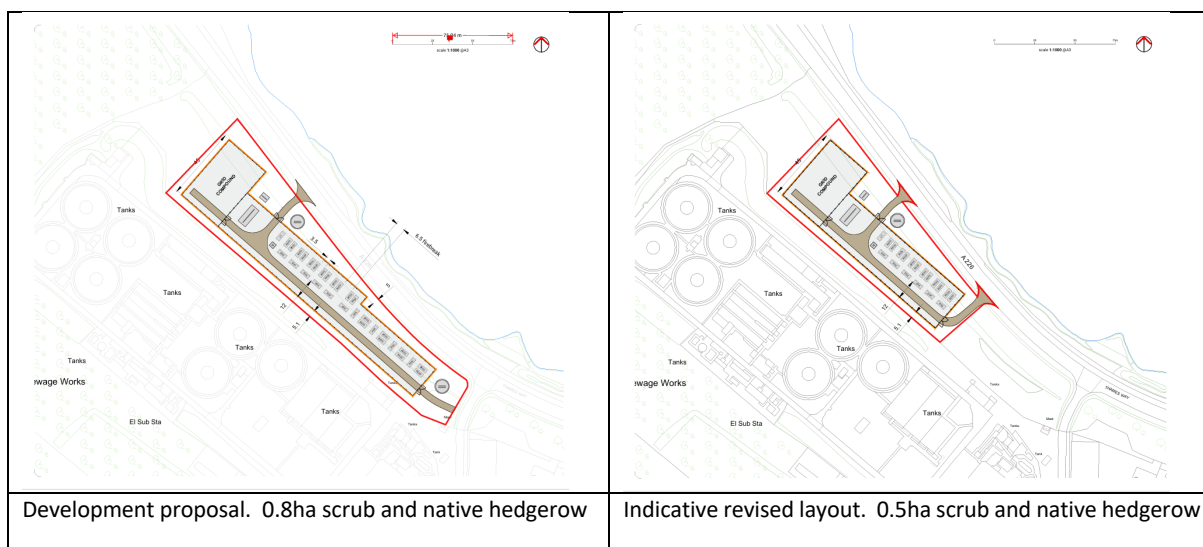


Figure 4 – Proposed Development and Indicative Revised Site Layouts.

Wells *et al.* 2025 developed a calculation for the number of adult dormice that 1ha of woodland/scrub can support, depending on the habitat values shown in Table 3.

Habitat Quality	Woodland/scrub (est. density of dormice per hectare)
Excellent	10
Good	6
Fair	4
Poor	2

Table 4 – Estimated Density of Dormice (Taken from Table 3.7 Estimated Density of Dormice, Wells *et al.*, 2025)

Using this methodology, a comparison was made of the number of adult dormice that will be impacted by the original and revised proposals, which is presented in Table 5.

Original proposal	Revised proposal
0.8ha suitable habitat (5 adult dormice)	0.5ha suitable habitat (3 adult dormice)

Table 5 - Estimated Density of Dormice in the Original and Revised Site Layouts

With the amendments to the site layout, the area of dormouse habitat to be lost has been reduced from 0.8ha to 0.5ha, and the number of adult dormice to impacted has reduced from 5 to 3. It is proposed that loss of this dormouse habitat can be compensated for by planting and enhancement of an equal/greater amount of land to the north and south of the proposed development site (see Section 4.5).

4.4 Mitigate

European Protected Species Mitigation Licence

A European Protected Species Mitigation Licence (EPSML) will be required for the vegetation clearance as it will result in the destruction of dormouse habitat and has the potential to kill/injure/disturb dormice.

EPSMLs are applied for once planning permission has been granted and are issued by Natural England who can take up to 30 days to process the application (although this can be longer at peak times or for complicated sites).

The licence, which is written by the consultant ecologist, consists of four documents:

- **Application form**, which details the basic information including site address, planning information, ecologist experience.
- **Method Statement**, which includes survey data, impacts and mitigation, and is used to determine whether the 'favourable conservation status' of dormice will be maintained i.e. is the mitigation is adequate?
- **Reasoned Statement**, which is used to determine whether there is 'no satisfactory alternative' and if the proposal is of 'imperative reasons of overriding public interest' (i.e. social and economic or public health or safety reasons).
- **Work Schedule**, which details the timing of work and mitigation.

In order to gain a licence, it must be demonstrated that the development is needed to meet imperative reasons of overriding public interest and that there is no satisfactory alternative to the development. It must also be demonstrated that the proposal will result in the maintenance of the favourable conservation status (FCS) of the dormouse population. In summary, maintenance of the FCS means that the natural range is stable or increasing and that the species structure and functions which are necessary for its long term maintenance exist and is likely to continue to exist for the foreseeable future, notwithstanding the development.

The EPSML application will detail mitigation and compensation measures required for the work to proceed. It is considered that the broad mitigation strategy outlined below will ensure maintenance, and where possible, enhancement of the FCS of the local dormouse population. **It must be noted that the draft measures outlined in this document will be open to scrutiny from the local planning authority ecologist and Natural England, and may be subject to change.**

Supervision

The habitat removal will be supervised by a licensed dormouse ecologist, who will brief the contractors on dormouse ecology, legislation and the proposed method of clearance.

Vegetation clearance

This is aimed at the careful timing of the clearance works. Clearance should be undertaken in a phased manner, using handheld tools (chainsaw/hedge cutter/brush cutter or similar).

- The first phase shall be removal of woody vegetation in the winter (between November and March), cutting vegetation to approximately 0.5m above ground level (this is to avoid impacts to dormice which hibernate at ground level, and will remove any habitat for breeding birds to use in the spring), under the direct supervision of a licenced ecologist.

- The site should then be cleared to ground level in the spring (late April/May), with any stumps/log piles being removed, under the direct supervision of a licenced ecologist. This should be done in a directional manner, to allow any animals within the site to move to safety within habitat that will be retained.
- The habitat clearance will be planned in conjunction with the trapping and translocation of reptiles from the site.

Emergency procedures to be followed if a dormouse is found during the removal of habitat will be detailed in the EPSML application documents.

Fencing

Areas of vegetation to be retained shall be clearly delineated onsite (using temporary fencing) with no access permitted during the construction phase.

Lighting

As dormice are nocturnal, any artificial lighting, temporary or permanent, should be directed away from/shielded from the surrounding retained vegetation, in order to minimise any adverse impacts.

4.5 Compensate

Approximately 0.5ha of scrub and native hedgerow will be removed to facilitate the proposed development. The proposals must ensure that there is no net loss of dormouse habitat. The applicant proposes to achieve this by:

- Five dormouse nest boxes will be installed in suitable habitat within retained and/or adjacent vegetation to increase the nesting opportunities for dormice.
- Planting of native species hedgerows along the site boundaries.
- Habitat planting and enhancement within area of land to the north of the site which is within the applicant's control for (see Figure 5 – blue line), and retained land within the application boundary (see Figure 5 – orange line). This land is currently grassland and bramble scrub. Advance planting of native scrub/woodland (including species such as hazel, hawthorn, elder, oak, holly and honeysuckle) will be undertaken alongside scrub management. This will ensure a structurally and species diverse habitat for dormice and connectivity of suitable habitats.



Figure 5 – Potential Mitigation Land (orange line – within existing site, blue line – additional land)

4.6 Post works monitoring

This would be a requirement of the licence, to assess the success of the mitigation on the dormouse population and to provide any information on remedial works.

The dormouse population will be monitored using the nest boxes installed within the retained habitat. The nest boxes will be checked twice a year between April and November inclusive, by a dormouse licensed ecologist. It is recommended that monitoring shall take place as above for three years after the vegetation clearance works are

complete. However, the frequency and duration of the monitoring will be confirmed with Natural England at the licensing stage.

All nest boxes will be emptied of rotting nest material during the winter (December to March inclusive) to prevent build-up of parasites for 5 years post-vegetation clearance.

At least 5 years of aftercare and maintenance, including replacement of failed stock, of the newly planted habitat will be required by the EPSML.

5. References

Bright, P., Morris, P. and Mitchell-Jones, A. (2006). *The Dormouse Conservation Handbook*. 2nd Edition. English Nature.

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Calumma Ecological Services (2025a). *Land at Thames Way, Northfleet, DA11 8HN. Preliminary Ecological Appraisal*.

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