



ECOLOGICAL ADVICE SERVICE

TO: *Richard Hart*

FROM: *Emma England*

DATE: *02 October 2025*

SUBJECT: *20250754, 20250755, 20250756 / Eastcourt Marshes Electricity Substation*

The following is provided by Kent County Council's Ecological Advice Service (KCC EAS) for Local Planning Authorities. It is independent, professional advice and is not a comment/position on the application from the county council. It is intended to advise the relevant planning officer(s) on the potential ecological impacts of the planning application and if sufficient/appropriate ecological information has been provided.

Any additional information, queries or comments on this advice that the applicant or other interested parties may have must be directed in every instance to the planning officer, who will seek input from the EAS where appropriate and necessary.

SUMMARY - ADDITIONAL INFORMATION REQUIRED:

- Reptile surveys in line with current professional standards at the proposed receptor site that has existing suitability for reptiles;
- Clear consideration of which habitats reptiles will be able to move into if solely relying on using habitat manipulation, and an acceptance that in some areas, a more targeted trapping effort may be preferable;
- Commitment to ensuring that the 'enhancement areas' have been suitably enhanced prior to carrying out site/vegetation clearance activities, and that management of the 'enhancement areas' will commence as soon as they are ready and expected to receive displaced animals;
- Further confirmation that for key invertebrate species of conservation concern, that habitat will be continuously available in sufficient quantity on or sufficiently near the site to permit recolonisation of the site post-development;
- Full understanding of the habitat management requirements of fiery clearwing moth to ensure that the size of the reptile enhancement area is not effectively reduced by using the site for both fiery clearwing moth conservation and for reptiles.

We understand that the applicant has committed to compensation areas off-site and landscaping on-site to account for the potential biodiversity losses on-site as a result of the development. The proposals with regards to mitigating and compensating for the impacts of 20231313 are largely good. However, we are concerned about two aspects of the current proposals:

- 1) The proposed timing of compensatory landscaping and management;
- 2) Methodology for the proposed movement of reptiles from the construction zone.

Although the locations of water vole enhancement have not been stated, given the small expected habitat losses, we are content with the general principles at this stage.

Landscaping and ecological management plan as well as ecological design plans are pre-commencement conditions because leaving species impacted by the development without suitable habitat for prolonged periods can result in population declines and even species losses from an area¹.

Habitat creation works that are purely proposed as enhancements or not required for short-term species mitigation would be ok to be left as information prior to first use of the project as proposed.

Detailed operational lighting plans can be put forward as part of a second LEMP submission.

We understand that as part of the wider development, up to 8.7 ha of land could be affected. In addition to habitat losses (the permanent loss of 0.6 ha and the temporary loss of 2.75 ha), including for reptiles and invertebrates, allowed by the permission for 20231313, suitable habitat for these species groups is also likely to be lost on a largely temporary basis within adjacent land.

We understand that works allowed by the permission for 20231313 are anticipated to take around four years². So, temporary losses of habitat for invertebrates and reptiles could be lost for around four years. We understand that no off-site compensatory habitat will be provided until the development is nearing completion. This represents a significant lag time between the loss of habitat and its compensation.

¹ We understand that the detailed designs for this development are not available at this stage. We further understand from the applicant, that an approach has been sought with Gravesham Borough Council whereby Condition 11 is to be partially discharged only. The elements for partial discharge include the following:

- Construction phase information

The following aspects we understand are to be dealt with via a further submission once detailed plans are available. We understand the purpose of this approach is to allow works to commence sooner on-site:

- Operational phase information prior to first use of the project.

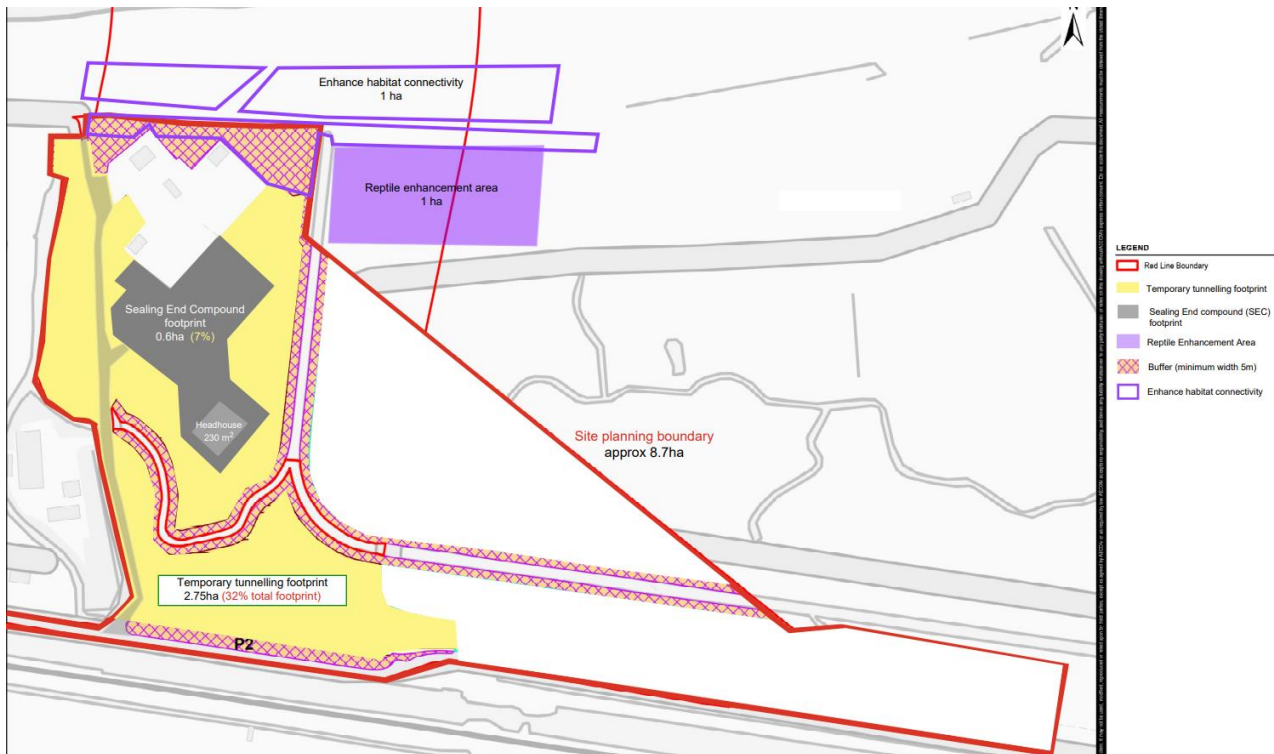
A second submission of the LEMP is proposed prior to the start of above ground construction of the headhouse, with FBJV and National Grid ensuring that all detailed design information will be provided to discharge planning conditions prior to the first use of the project.

² Table 3, Construction Programme shown in the LEMP, Appendix C.

Reptiles

The LEMP page 13, section 4.4.2 states: “... the Gravesend Site supports a ‘good’ population of slow worm and low populations of grass snake and common lizard”. Page 116 of the reptile mitigation strategy goes on to say: “Gravesend would be considered an ‘important’ Site in relation to reptile biodiversity and population (Froglife, 1999)”.

We understand that compensation for the permanent habitat loss of 0.6ha and the temporary habitat loss of 2.75ha is to be provided for through enhancement of grassland to the north and northeast of the site as shown below. Further habitat compensation will eventually be provided through the reinstatement of habitats on-site post-development.



However, the submitted information (see table 4 below) appears to suggest that management of the proposed approximately 2ha of compensatory habitat will not be made available to reptiles until the final phase of development. This could be four or more years after suitable habitat has been cleared at the site:

Table 4 Phasing plan

Phase	Key Activities	Ecological Considerations
Pre-development works	Site clearance, Hoarding installation, Access set up	Bird nesting, waterbody <u>buffer</u> , water vole habitat, reptiles, <u>invertebrate</u> , tree protection
Early works	Compound set-up Site set-up Temporary bridge installation Water outfall installation	Water voles' displacement license Reptiles' hibernation
Development works	Shaft sinking excavation Tunnel Boring Machine (TBM) removal MEP works	
Soft Landscaping	Habitat creation	Installation of eight refugia piles for reptiles, mowing regime

We understand that the reptile habitat within the site is best habitat available within the wider development area (as copied below and shown on page 111 of the submitted LEMP), and that the proposal is to displace reptiles, through habitat manipulation, into retained habitats to the east, south and north of the site prior to commencing works:



We note that reptiles are proposed to be moved from around 3.35 ha of 'good' and 'poor' suitability habitat into retained poor suitability habitat. Some this 'retained' habitat may then be removed as part of works to do with an adjacent planning application.

We also note that there appears to be poor habitat connectivity to the proposed enhancement areas as shown overleaf.

One of the basic principles of habitat manipulation is that reptiles should always be able to move away from habitat clearance activities into cover. This section will have a very narrow 5m buffer of vegetation around the watercourse to its north and south into which animals will be able to move. However, roads/trackways and waterways will limit/slow movement of animals to areas of cover beyond this. Animals will eventually be forced to disperse across open ground (exposing them to predation) as the habitat they are being moved into represents a large reduction on the habitat previously available. The remaining habitat will be unable to support all the additional animals.



The habitat in these areas also has barriers to wider dispersal, particularly in the central area of grassland surrounded by roads/trackways. The habitat to the east in this area appears to have some connectivity to habitat off-site in the north and east.

Habitat manipulation and destructive searches with limited translocation of animals trapped at refugia left out after the 2025 reptile surveys appears to be a suboptimal solution for this development. Our reasoning is as follows:

- Animals are being moved from a large area (3ha) into small areas of retained habitat with poor connectivity to surrounding habitat, the majority of which has been assessed to be of lower quality than that to be lost;
- There is a long lag time (4+ years) between habitat reinstatement on-site and habitat enhancement of off-site areas;
- No reptile surveys appear to have been conducted of the 1ha of reptile enhancement area with existing suitability for reptiles to gauge its current population levels. Carrying out reptile surveys of a potential receptor site, prior to using it as one is standard practice. The carrying capacity at receptor sites needs to be clear. There is no empirical evidence that adding a small number of log piles/hibernacula to the area and mowing a path will create sufficient additional habitat to house both the animals that may already live in this area, and those displaced from the development site.

Receptor sites should ideally not already support reptiles, or if they do, it needs to be clear that it can support the additional animals. Receptor sites should ideally be the same size or larger than the donor site. If they are smaller, it needs to be extremely clear that habitat enhancements are able to support the additional animals.

We would recommend that greater consideration be given to how animals can access retained and enhanced habitats when considering how best to prepare the construction site.

We would also advise that it is imperative that sufficient off-site compensatory habitat be made available PRIOR to removing reptile habitat within the development site. A commitment needs to be made to this effect. This is particularly as Page 121 of the reptile mitigation strategy in Appendix B of the LEMP states:

“...any individual animals located via finger-tip search or during the displacement two-staged vegetation clearance will be relocated to the designated reptile enhancement site to the north-east boundary of the site, and displaced to the neighbouring RSPB, Met Police and Environment Agency owned and managed land”.

Invertebrates

We note that the LEMP page 13, section 4.4.2 states, with regards to invertebrates:

*“... a diverse assemblage of County importance was identified, including four Species of Principal Importance namely brown-banded carder-bee (*Bombus humilis*)³; shrill carder-bee (*Bombus sylvarum*)⁴; hornet robberfly⁵ (*Asilus crabroniformis*) and small heath butterfly (*Coenonympha pamphilus*)⁶. In addition, phoenix fly⁷ (*Dorycera graminum*) is considered very likely to occur, and wall butterfly (*Lasiommata megera*) is considered possible to occur”.*

An entomological visit on 24th July 2025 further found the presence of the protected, fiery clearwing moth⁸.

The invertebrate survey report for the site carried out to support the planning application 20231313 recorded 307 different species of invertebrate across three surveys. The invertebrate specialist stated that this: *“suggests that the Gravesend survey area is a rather diverse site for invertebrates”.*

We note that Buglife has previously suggested that the site is of national importance for invertebrates.

We see the latest correspondence indicates: *“The overall assessment based on the results of the July monitoring visit suggests a site of low quality for invertebrates. It is nevertheless a site that supports some individual species of conservation importance, including Fiery Clearwing, Brown-banded Carder bee, and a few other scarce species”.* We have not seen a copy of the latest invertebrate report, but this statement is not in alignment with the

³ Requires flower-rich grasslands: [Brown-banded carder bumblebee - Bumblebee Conservation Trust](#)

⁴ Found in flower-rich grasslands and drainage ditches: [Shrill carder bumblebee - Bumblebee Conservation Trust](#)

⁵ Requires a suitable perch e.g., stone, animal dung. Prefers to eat dung beetles and breed in animal dung: [Hornet robberfly | The Wildlife Trusts](#)

⁶ Needs grassland containing fine grasses where the sward is short and sparse: [Small Heath | Butterfly Conservation](#)

⁷ [The status, distribution and biology of phoenix fly \(*Dorycera graminum*\) \(Fabricius\) \(Diptera, Ulidiidae\). - ENRR395](#)

⁸ [Fiery Clearwing | Butterfly Conservation](#)

project's own previous assessments of the site, nor of the assessment of consultees on planning application 20231313.

With the exception of fiery clearwing moth, the project appears to have taken the approach for invertebrates that populations of the relevant invertebrates will remain in areas adjacent to the development site (e.g., the 5m buffer zone) and that the time lag in habitat losses from the development site and reinstatement will not have a significant impact on the local populations⁹. This seems like a reasonable approach providing suitable habitats in the surrounds are available and in sufficient quantities. For example, we see the hornet robberfly is reliant on dung for its lifecycle. Sufficient dung will presumably not remain on-site until grazing is resumed post-development. Assuming hornet robberfly is present relatively near the site, this may not be a significant issue. We do not have sufficient knowledge of the local area to understand the potential for permanent invertebrate losses resulting from the time lag in available habitats. In short, it is still not clear whether suitable habitat will be continuously available in sufficient quantity, on or sufficiently near the site to permit recolonisation of the site post-development by the full suite of invertebrates of conservation concern recorded during the baseline surveys.

We note that some of the reptile enhancement area is now proposed for use as fiery clearwing moth compensation. We would like to understand how management of moth habitat aligns with its dual purpose as a reptile receptor area as we note that the habitat management requirements of fiery clearwing moth do not appear to be fully understood at this stage.

If you have any queries regarding our comments, please do not hesitate to get in touch.

Emma England
Biodiversity Officer

This response was submitted following consideration of the following documents:

AECOM (July 2024) Response to Ecological Points Raised in KCC Advice to Gravesham BC dated 27 February 2024.

FBJV (September 2025) National Grid Planning Application ref 20231313. 24th September 2025. Letter to Richard Hart.

Ferrovial Construction (July 2025) Grain to Tilbury. LEMP Appendix C Gravesham Borough Council Construction Ecological Management Strategy and Ecological Design Strategy.

Ferrovial Construction (September 2025) Grain to Tilbury. Landscape and Ecological Management Plan (LEMP) – Gravesham Borough Council Planning.

⁹ LEMP page 18, section 5.4:

"Temporary displacement of faunal species associated with these habitats for the duration of the construction, but ensure adjacent populations remain present and suitable to naturally recolonise the Site when construction is completed".

Ferrovial Construction (July 2025) Grain to Tilbury. Landscape and Ecological Management Plan (LEMP) – Gravesham Borough Council Planning.

Appendix 1 – Condition Wording

Construction Ecological Management Strategy (CEMS) - Biodiversity/Biodiversity Method Statement

10. No development approved by this permission shall take place (including any site/vegetation clearance) before a construction ecological management strategy (CEMS - biodiversity) has been submitted to and approved in writing by the local planning authority. The CEMS - biodiversity shall be based on the avoidance, mitigation and compensation measures indicated within the ecological information submitted with the planning application. The CEMS - biodiversity shall include the following:

- a. Risk assessment of potentially damaging construction activities;*
- b. The identification of biodiversity protection zones and the use of protective fences, exclusion barriers and warning signs. This shall include a suitable buffer zone(s) (as set out by a suitably qualified ecologist) for relevant protected and priority species;*
- c. Extent and location of proposed works shown on appropriate scale maps and plans for all relevant species and habitats;*
- d. Practical measures (both physical measures and sensitive working practises) to avoid or reduce impacts during construction (may be provided as a set of species or habitat-specific method statements);*
- e. The location and timing of sensitive works to avoid harm to biodiversity features;*
- f. Timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;*
- g. The times during construction when specialist ecologists need to be present on site to oversee works;*
- h. Details of any necessary protected species licences or reference to other relevant documents as required (e.g., Arboricultural Method Statement/ updated species survey reports/ecological design strategy);*
- i. Responsible persons and lines of communication; and*
- j. The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.*

The approved CEMS - biodiversity will be adhered to and implemented throughout the construction period (and beyond if required) in accordance with the approved details.

Reason: To ensure that construction of the development does not cause harm to biodiversity or ecology including protected species in accordance with Policies CS12 and CS19 of the Gravesham Local Plan Core Strategy (2014) and section 15 of the National Planning Policy Framework (2024).

Landscape Ecological Management Plan (LEMP)

11. No development approved by this permission shall take place until a Landscape Ecological Management Plan (LEMP), including long-term design objectives, management responsibilities and maintenance schedules for all wetland and ditch habitats has been submitted to, and approved in writing by, the Local Planning Authority. The LEMP shall be carried out as approved and any subsequent variations shall be agreed in writing by the local planning authority. The LEMP shall include the following:

- a. Details of treatment of operational site boundaries and/or buffers around water bodies; an adequate buffer zone extent (i.e. to provide good forage and shelter for water voles) to be identified and demarked on a scaled map;
- b. Details demonstrating how the buffer zone will be protected during development;
- c. Details of how any permanent proposed footpaths, fencing, lighting, and other aspects of the development may interact with the wetland or ditch habitats; the applicant should note that artificial light spill should be directed away from ecological receptors, sensitive lighting design guidance can be accessed via the Bat Conservation Trust;
- d. No light spill from permanent external artificial lighting into the watercourse or adjacent river corridor habitat. To achieve this the specifications, location and direction of external artificial lights should be such that the lighting levels within 8.5 metres of the top of bank of the watercourse are maintained at background level (background levels are considered to be a Lux level of 0-2);
- e. Details of maintenance regimes; including specific treatment of the ditch buffer zone and new wetland habitats;
- f. Details of any new wetland and ditch habitat created on-site, including any proposed planting scheme should be provided. Planting schemes should use native species, suited to the catchment character and management responsibilities should be provided.

Reason: To ensure the protection of wildlife and the supporting habitat and to secure opportunities for enhancing the site's nature conservation value, promoting positive conservation status for water vole in the area and to complement achievement of the proposed Biodiversity Net Gain ambition in accordance with Policy CS12 of the Gravesham Local Plan Core Strategy (2014) and section 15 of the National Planning Policy Framework (2024).

Ecological Design Strategy

12. No development approved by this permission shall take place (including any site/vegetation clearance) before an Ecological Design Strategy (EDS) has been submitted to and approved in writing by, the Local Planning Authority. The EDS shall ensure that on-site compensatory habitat is provided for relevant protected and priority species (as determined by a suitably qualified ecologist). The EDS shall ensure that both on and off-site compensatory habitat is provided for the projected permanent and temporary loss of reptile habitat (as identified in the AECOM Technical Note: Response to Ecological Points Raised in KCC Advice to Gravesham BC Dated 27th February 2024 (24th July 2024 Rev02). The EDS shall ensure the mitigation and compensation measures with regards to habitat improvements proposed, and the area of land required, are based on available scientific research and government standing advice. If the proposed compensation site already has an existing population of the relevant species and/or is already proposed as compensation for other development, evidence shall be provided to demonstrate that the measures proposed are additional. The EDS shall include where practical the following:

- a. Up-to-date survey data carried out in accordance with best practice for the both the development site and the proposed off-site compensation site(s);
- b. Purpose and conservation objectives for the proposed works;
- c. Review of site potential and constraints;
- d. Description and evaluation of features to be managed;
- e. Detailed design(s) and/or working method(s) to achieve stated objectives. This shall include a detailed methodology for the movement of reptiles and measures to prevent

reptiles returning to the site prior to and during the development. This shall also include details of how any receptor sites will be enhanced and be in a suitable condition to support the likely number of animals which will be moved, prior to any animals being moved, and details of the management of the compensation site(s) in perpetuity.

f. Full details of soft landscape works, to include species, size and location of new habitats (e.g., trees, shrubs, hedges and grassed areas to be planted) with the extent and location/area of proposed works shown on appropriate scaled maps and plans;

g. Full details of the proposed ecological features. For habitat boxes details shall include numbers, make and model, locations to include height, aspect and mounting location shown on scaled landscaping plans suitable for construction. For log piles and hibernacula details shall include materials, size, shape and construction methodology. Locations shall be shown on scaled landscaping plans suitable for construction;

h. Extent and location/area of proposed works on appropriate scale maps and plans;

i. Full details of the extent of appropriate buffers (as set out by a suitably qualified ecologist) for protected and priority species;

j. Type and source of building materials to be used where appropriate, e.g. native species of local provenance;

k. Timetable for implementation demonstrating that works are aligned with the proposed phasing of development;

l. Details of the body or organisation(s) responsible for implementing the EDS and the mechanisms for securing the mitigation/compensation land and its management for the lifetime of the development;

m. Details of initial aftercare and appropriate management prescriptions for relevant protected and priority species and habitats (as identified by a suitably qualified ecologist and in accordance with information submitted as part of the application) for the lifetime of the development within a Landscape and Ecological Management Plan;

n. Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period);

o. Details for monitoring (to be undertaken by a suitably qualified ecologist(s)) and remedial measures.

The EDS shall be implemented in accordance with the approved details. All features shall be retained as approved thereafter, unless remedial measures are required. Approval for any remedial measures shall be sought from the Local Planning Authority in writing and thereafter implemented as approved.

Reason: To ensure that construction of the development does not cause harm to species including protected species and their habitat in accordance with Policies CS12 and CS19 of the Gravesham Local Plan Core Strategy (2014) and section 15 of the National Planning Policy Framework (2024).