



Preliminary Ecological Appraisal and Preliminary Roost Assessment

Port Control Centre & Alexandra House, Kent, Gravesend, DA12 2BG

Port of London Authority

Status	Issue	Name	Date
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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Port of London Authority to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Port Control Centre & Alexandra House, Kent, Gravesend, DA12 2BG (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of an external stairwell, construction of a new single story roof space, improvements to the exterior facades, internal refurbishment and new landscaping to provide a level access to London river house and the Port Control Centre (PCC). The existing link between the PCC and grade II listed Royal Terrace Pier will be enhanced, and repaving works is proposed in the forecourt area of the listed pier and the removal and relocation of the radar mast (hereafter referred to as “the proposed development”).

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 8 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Designated sites	There is one statutory site within 2km of the site, the closest being South Thames Estuary and Marshes SSSI located ~1980m south-east of site. The presence of non-statutory designated sites within 2km of the site cannot be established without data from Kent and Medway Biological Records Centre (KMBRC). The estuary directly to the north is likely to contain features qualifying it for non-statutory designation.	No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the possible presence of non-statutory designations in the vicinity, indirect effects such as pollution or tree damage could occur during construction.	Best practice measures to minimise the possibility of pollution must be implemented during construction.
Habitats and flora	There are no notable habitats within the site but four habitats are present within 2km of the site, the closest being Mudflats, which is located directly adjacent to the north of site. Habitats within the site, such as hard standing and common tree species, are common and widespread and have low ecological value. No invasive, protected or notable plant species were recorded during the survey.	No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the proximity of the site to Mudflats, indirect effects such as pollution could occur during construction. The proposed development will result in the external and internal refurbishments of B2 and B3, which include demolition and re-building of a stairwell on the eastern elevation of B3, plus an additional floor extension to B3 and the relocation of the mast from B3 to B5.	A Construction Environmental Management Plan (CEMP) will be required, outlining best practice measures delineate the construction zone and to minimise the possibility of pollution and tree damage during construction. Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).

		Landscaping and re-paving of the southern side of site will also occur. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats. The trees on site will be retained.	
Hedgehog	The site does not provide habitats which hedgehogs can use for seeking shelter, foraging or hibernating. The site is open and can be used by commuting hedgehogs.	The south of site will be impacted by landscaping and re-paving during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of commuting urban hedgehogs, if present.	A precautionary working method will be implemented during construction, please refer to Table 8.
Birds	The site offers limited suitability for nesting and foraging birds, which is restricted to the trees to the south of site and small section of introduced shrubs. The buildings do not provide nesting opportunities. The site is not suitable for wintering or ground nesting birds, or barn owls.	The trees will be retained, however, the introduced shrubs will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Port of London Authority to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Port Control Centre & Alexandra House, Kent, Gravesend, DA12 2BG (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of an external stairwell, construction of a new single story roof space, improvements to the exterior facades, internal refurbishment and new landscaping to provide a level access to London River House and the PCC. The existing link between the PCC and grade II listed Royal Terrace Pier will be enhanced, and repaving works is proposed in the forecourt area of the listed pier and the removal and relocation of the radar mast (hereafter referred to as “the proposed development”). The anticipated work schedule includes construction to Alex House tower in January 2024 with PCC works to start in 2025 and completed in 2026. A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA&PRA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting.

A Preliminary Roost Assessment was completed by Arbtech Consulting Ltd in October 2022 (Arbtech, 2022). The PRA was focused on the Royal Pier on the ownership site. It was concluded that the pier provided a very low habitat value for crevice dwelling bats due to the presence of some lifted roof tiles. Further surveys, such as bat emergence surveys were not recommended due to major limitations to bat emergence surveys. Pre-cautionary working method was recommended.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference TQ 65109 74419 and has an area of approximately 0.4ha comprising four buildings (B1, B2, B3 and B5) and a pier (B4) with associated carpark and landscaping. It is directly surrounded by the River Thames estuary to the north, scattered residential and industrial buildings with urban landscaping including roads to the east, west and south. The wider landscape comprises a recreation ground ~120m south-east, with the town of Gravesend directly to the south, east and west. The pier provides access between Gravesend and Tilbury, ~800m north over the estuary. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

The PEA element of this report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

The PRA element of this report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species, including roosting bats.
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a review of the magic.gov.uk database for statutory designated sites within a 2km radius of the site. Landscape value and the presence of notable habitats as well as granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database has also been considered where these are within influencing distance of the site.

2.2 Field Survey

The survey was undertaken by Megan Knapp BSc (Hons), Consultant Ecologist [Natural England Level 1 bat licence number 2022-10627-CL17-BAT, accredited agent to Natural England Level 2 bat licence number 2018-33540-CLS-CLS, Natural England Level 1 GCN licence number 2022-10628-CL08-GCN and Natural England Level 1 dormouse licence number 2023-11079-CL10A-DOR] on 22nd November 2023.

Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out in *UK Habitat Classification User Manual* (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management. Botanical species lists were compiled with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Preliminary Roost Assessment

The PRA focussed on five built structures and five trees which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the buildings for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the buildings was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

For any surveyed trees:

A visual inspection was undertaken from ground level using binoculars.

Suitability Assessment

Built structures and trees were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 and Table 2 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

Table 2: Features of a tree that are correlated with use by bats

Classification	Feature of tree and its context
Moderate to high	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. Trees with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential to be used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators.
Negligible	Unsuitable for use by bats.

2.3 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

Limitations to the survey include:

- No biological records data search had been authorised at the time of writing this report. Therefore, the presence of non-statutory designated sites or protected species in the wider landscape is unknown.
- View of the northern elevation of B1 could not be seen due to the presence of a sea wall and estuary, preventing access. Therefore, the presence of features which species such as bats could use could have been missed.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

Details of any statutory designated sites within a 2km radius of the site, including their reasons for notification, are provided in Table 3 below.

Table 3: Statutory designated sites within 2km radius of the site

Designated site name	Distance from site	Reasons for notification from Natural England
South Thames Estuary and Marshes SSSI	~1980m east of site	The South Thames Estuary and Marshes SSSI from Gravesend to the eastern end of the Isle of Grain forms a major component of the Greater Thames Estuary. The site consists of an extensive mosaic of grazing marsh, saltmarsh, mudflats and shingle characteristic of the estuarine habitats of the north Kent marshes. Freshwater pools and some areas of woodland provide additional variety and complement the estuarine habitats. The site supports outstanding numbers of waterfowl with total counts regularly exceeding 20,000. Many species regularly occur in nationally important numbers and some species regularly use the site in internationally important numbers. The breeding bird community is also of particular interest. The diverse habitats within the site support a number of nationally rare and scarce invertebrate species and an assemblage of nationally scarce plants.

3.2 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 4.

Table 4: Weather conditions during the survey

Date:	22/11/2023
Temperature	9°C
Humidity	78%
Cloud Cover	100%
Wind	3mph
Rain	None

Habitats and Flora

The following habitats are present within and adjacent to the site:

- u1b5 Buildings
- u1b6 200 532 804 847 Other developed land, tree, scattered grass, carpark, introduced shrub
- u1e 612 853 Built linear feature, fence, mortared wall

A description and photographs of each habitat are provided in Table 5. Buildings and trees were assessed for their roost value and are discussed in Table 6 below.

No protected or non-native invasive plant species (as listed under Schedules 8 or 9 of the Wildlife and Countryside Act 1981) were identified on the site.

Table 5: Description and photographs of habitats within and adjacent to the site

Habitat type	Habitat description	Photograph
u1b6 200 532 804 847 Other developed land, tree, scattered grass, carpark, introduced shrub	The majority of the site, which are not buildings, consist of hard standing ground such as pavements and carpark areas. These areas consist of concrete, pebbles and brick. There are areas of scattered grass sections to the south of site. The grass is well managed and kept short with a sward height of ~2-5cm. Species include perennial rye (D), bent grass (O) with doves foot cranes bill (A), clover (F), yarrow (F), daisy (F), bristly oxtongue (O) and dandelion (O). There are five scattered trees on the southern boundary, which include London plane, sycamore and silver maple.	 Figure 1 Carpark to the south of site.
	 Figure 2 Grass to the south of site.	 Figure 3 Trees on the south of site.

u1e 612 853 Built linear feature, fence, mortared wall	A metal fence borders the site's western and southern boundary, with a metal railing and brick wall and wooden fencing on the northern boundary.	 Figure 4 Fence line.
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Fauna

Bats

The results of the PRA are provided in Table 6. No evidence of roosting bats was identified during the survey.

Table 6: Assessment of the suitability of the site for bats

Feature	Description	Photographs
Historical records	The Magic database returned one EPSL for bats within 2km of site, which is located ~1790m north of site. The EPSL allowed for the destruction of a breeding and resting place for brown long eared bats, common pipistrelles and soprano pipistrelles.	
Bat foraging and commuting habitat	The location of the site, being directly on the estuary edge and within an urban area, limits the site's suitability for foraging and commuting bats. There is a line of five trees on site, which provides a low habitat value for commuting bats. The lack of other habitats such as tree lines, hedgerows and vegetation on site and the estuary to the north of site is not suitable for bats.	

B1 - overview	B1 is a semi-detached four-storey brick-built building with a pitched roof. The brick work appears in good condition with no holes or gaps present. The roof material could not be determined as solar panels cover majority of the roof and the material of the roof is not visible. The windows and doors are UPVC framed and tight fitting, some windows are wooden framed. The building has a carpark below the building, which is present on the ground level. The carpark area has no voids or crevices present.	 Figure 5 Southern and eastern elevation of B1 and southern elevation of B2.  Figure 6 Western elevation of B1.
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B1 – interior	There is one loft void within the roof of B1. The loft is large and is lined with wooden boards and wooden beams. There is a standalone room within the loft space, which has a flat roof. The floor has a mixture of wool insulation and chipboard boarding. Low light levels enter the loft at the eaves. Heating and airing systems are present within the loft which take up a lot of room and are noisy, which will be unsuitable for roosting bats. Cobwebs are scattered around the ridge of the roof.	 Figure 7 Interior of the loft in B1.
B1 – suitability assessment for bats, breeding birds and other incidental observations	There is no evidence of bats within the interior and exterior of B1. There are no features which bats can use for roosting. B1 has a negligible habitat value for roosting bats. There is no evidence of nesting birds within the interior or exterior of B1, nor are there features which birds can use for nesting.	

B2 - overview	B2 is a double story brick built building with a pitched roof which is connected to the eastern elevation of B1 and the western elevation of B3. The brick work is in good condition with no gaps or holes. The roof is clad in slate tiles and in good condition, with no raised or missing tiles. The wooden soffits are in good condition and tight fitting. The windows and doors are UPVC and metal framed and are tight fitting. Metal façade is present around the building. The building has a carpark underneath, on the ground level, which appears in good condition with no features which bats can use for roosting.	A photograph showing the southern elevation of a brick building complex. The building is multi-storied with a mix of red and light-colored bricks. It features a pitched roof, several windows, and a small tower-like structure on the right side. A paved area with some fallen leaves is in the foreground. Figure 8 Southern elevation of B2 and B3. A photograph taken from inside a carpark, looking up at the underside of a concrete structure. Several concrete pillars support the ceiling. A large metal pipe runs diagonally across the frame. In the background, several cars are parked. Figure 9 Carpark under B2.
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B2 – interior	There are no loft spaces within B2, however, there are four eave spaces on the northern and southern elevations. The eaves are lined with plasterboard and no light enters these spaces, indicating the eaves are well sealed.	 <i>Figure 10 Eaves in B2.</i>
B2 – suitability assessment for bats, breeding birds and other incidental observations	There is no evidence of bats within the interior and exterior of B2. There are no features which bats can use for roosting. B2 has a negligible habitat value for roosting bats. There is no evidence of nesting birds within the interior or exterior of B2, nor are there features which birds can use for nesting.	

B3 - overview

B3 is a semi-detached brick built building which has a flat roof. The brick work appears in good condition with no holes and gaps. There is a pebble dash render on the northern elevation which appears in good condition. The windows are metal framed with concrete lintels and the doors are UPVC framed, which are all tight fitting. The wooden soffit boards are also tight fitting. The roof is clad in concrete and lead which has a mast and single story small room which also has a flat roof clad in concrete and lead. There are no features on the roof which bats can use for roosting. There are no internal spaces such as lofts or voids.



Figure 11 Southern elevation of B3.



Figure 12 Northern and eastern elevation of B3.



Figure 13 Mast to be relocated on the roof of B3.

B3 – suitability assessment for bats, breeding birds and other incidental observations	There is no evidence of bats within the interior and exterior of B3. There are no features which bats can use for roosting. B3 has a negligible habitat value for roosting bats. There is no evidence of nesting birds within the interior or exterior of B3, nor are there features which birds can use for nesting.
B4 - overview	B4 is a detached single storey pier located very closely between B3 and B5. B4 is a stone built pier which has concrete pillars and wooden soffits, which appear tight fitting and in good condition. The roof is hipped and clad in slate tiles, which were reclad late 2022/early 2023. The tiles appear in good condition with no raised tiles. There are no loft voids within this section of the pier. The entrance of the pier is open and exposed. There are no roost features present.  <i>Figure 14 Southern elevation of B4.</i>



Figure 15 Roof of B4.



Figure 16 Interior of B4.

B4 –
suitability
assessment
for bats,
breeding
birds and
other
incidental
observations

There is no evidence of bats within the interior and exterior of B4. There are no features which bats can use for roosting. B4 has a **negligible** habitat value for roosting bats. There is no evidence of nesting birds within the interior or exterior of B4, nor are there features which birds can use for nesting.

B5 – overview

B5 is a detached five storey concrete block built building with metal façade. The external materials are in good condition and tight fitting. There are many windows present on the building, which are metal and UPVC framed and the doors are UPVC framed, which are all tight fitting. The roof is flat and clad in bitumen felt which has a two single story small rooms which also have flat roofs clad in concrete and lead. There are no features on the roof which bats can use for roosting. There are no internal spaces such as lofts or voids.



Figure 17 Southern and western elevation of B5.



Figure 18 Northern and eastern elevation of B5.



Figure 19 Roof of B5.



Figure 20 Roof of B5

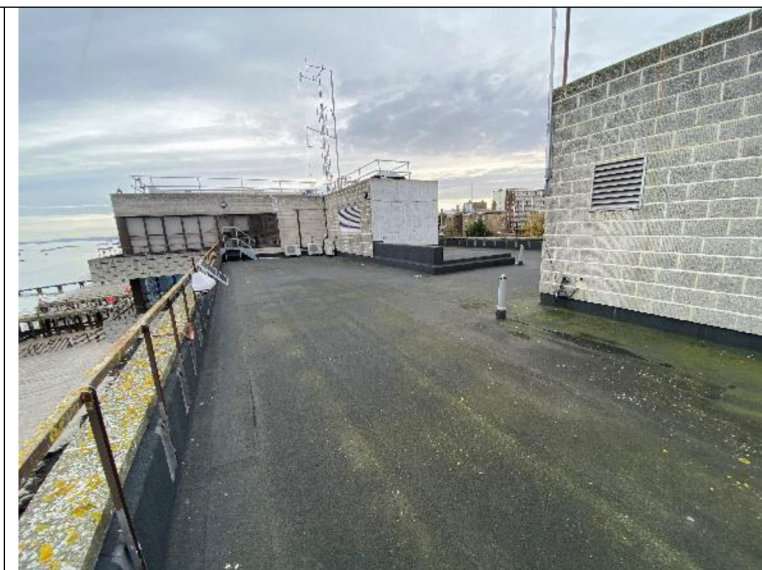


Figure 21 Area of the roof where the new mast will be installed on B5.

B5 – suitability assessment for bats, breeding birds and other incidental observations

There is no evidence of bats within the interior and exterior of B5. There are no features which bats can use for roosting. B5 has a **negligible** habitat value for roosting bats. There is no evidence of nesting birds within the interior or exterior of B5, nor are there features which birds can use for nesting.

Trees – suitability assessment for bats, breeding birds and other incidental observations

None of the trees on site have features which bats can use for roosting, such as gaps, holes or lifted bark. No bird nests were observed, however, the trees could provide habitat for nesting birds.

Other Species

An assessment of the suitability of the site for protected or notable species is provided in Table 7.

Table 7: Assessment of the suitability of the site for protected or notable species

Species	Assessment of suitability
Amphibians and Reptiles	The Magic database returned zero EPSL, class licence returns or historic pond survey data for great crested newts (GCN) within 2km of site. There are two ponds within 500m of site, which are located within the recreational park ~235m south-east of site. It is highly unlikely GCN are present within these ponds due to the urban location and possible high presence of seabirds and common birds. The site is not suitable for common amphibians and reptiles due to the lack of suitable habitat on site. The site is also located between the estuary and urban landscape, such as roads, buildings and towns, meaning it is very unlikely that common amphibian and reptiles are present on site and within the wider landscape.
Badgers	There are no badger setts within 30m of site or on site. The site or wider landscape does not provide habitats which badgers use. It is possible for urban badgers to commute through site, however, there are very limited foraging opportunities.
Hazel Dormouse	The Magic database returned zero EPSL for hazel dormice within 2km of site. The site is not suitable for dormice due to the lack of habitat on site which dormice typically use. The site is not connected to suitable habitats within the wider landscape.
Hedgehog	The site does not provide habitats which hedgehogs can use for seeking shelter, foraging or hibernating. The site is open and can be used by commuting hedgehogs.
Otter and Water Vole	The site is not suitable for otters and water voles due to the lack of habitats on site. The surrounding landscape is not suitable for water voles due to the lack of water courses which they typically use and urban location. The estuary could be used by otters, although there are no habitats which could be used for holt creation.
Birds	The site offers limited suitability for nesting and foraging birds, which is restricted to the trees to the south of site and small section of introduced shrubs. The buildings do not provide nesting opportunities. The site is not suitable for wintering or ground nesting birds, or barn owls.
Invertebrates	The site offers limited suitability for common invertebrate assemblages, which is restricted to the trees to the south of site and small section of introduced shrubs. It is unlikely that notable invertebrate assemblages will be present on site.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 8 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise the demolition of an external stairwell, construction of a new single story roof space, improvements to the exterior facades, internal refurbishment and new landscaping to provide a level access to London river house and the Port Control Centre (PCC). The existing link between the PCC and grade II listed Royal Terrace Pier will be enhanced, and repaving works is proposed in the forecourt area of the listed pier and the removal and relocation of the radar mast.

Table 8: Evaluation of the site and any ecological constraints

Feature	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities ¹
Designated sites	There is one statutory site within 2km of the site, the closest being South Thames Estuary and Marshes SSSI located ~1980m south-east of site.	No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the possible presence of non-statutory designations in the vicinity, indirect effects such as pollution or tree damage could occur during construction.	Best practice measures to minimise the possibility of pollution must be implemented during construction.	None.

¹ The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	The presence of non-statutory designated sites within 2km of the site cannot be established without data from Kent and Medway Biological Records Centre (KMBRC). The estuary directly to the north is likely to contain features qualifying it for non-statutory designation.			
Habitats and flora	There are no notable habitats within the site but four habitats are present within 2km of the site, the closest being Mudflats, which is located directly adjacent to the north of site. Habitats within the site, such as hard standing and common tree species, are common and widespread and have low ecological value. No invasive, protected or notable plant species were recorded during the survey.	No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the proximity of the site to Mudflats, indirect effects such as pollution could occur during construction. The proposed development will result in the external and internal refurbishments of B2 and B3, which include demolition and re-building of a stairwell on the eastern elevation of B3, plus an additional floor extension to B3 and the relocation of the mast from B3 to B5. Landscaping and re-paving of the southern side of site will also occur. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats. The trees on site will be retained.	A Construction Environmental Management Plan (CEMP) will be required, outlining best practice measures delineate the construction zone and to minimise the possibility of pollution and tree damage during construction. Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).	The following habitat creation and enhancement opportunities could be incorporated into the proposed development: Planting native trees and shrubs. Species-specific enhancement opportunities are detailed later in this table.
Amphibians and Reptiles	The site is not suitable for common amphibians and reptiles due to the lack of suitable habitat on site. The site is also located between the estuary and urban landscape, such as	No impacts are anticipated on common amphibians and reptiles, including great crested newt, as a result of the proposed development as this species is considered to be absent from the site.	None.	None.

	roads, buildings and towns, meaning it is very unlikely that common amphibian and reptiles are present on site and within the wider landscape.			
Roosting bats (buildings and trees)	B1-5 and the trees on site have negligible value for roosting bats due to a lack of potential roost features.	Bats are very unlikely to be roosting within the buildings or trees and as such, there are not anticipated to be any impacts on roosting bats as a result of the renovations and extensions to the buildings.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	The installation of one bat box at the site will provide additional roosting habitat for bats. The bat boxes will be installed on a retained building or tree. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.
Foraging and commuting bats	The trees on site could be used by local bat populations for foraging and commuting, although provides very low habitat value. These could also be used by bats dispersing from nearby roosts outside of the site.	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: Planting of native tree, shrub and hedgerows to increase foraging opportunities.
Badger	There are no badger setts within 30m of site or on site. The site or wider landscape does not provide habitats which badgers use. It is possible for urban badgers to commute through site, however, there are very	No impacts are anticipated on badgers as a result of the proposed development.	None.	None.

	limited foraging opportunities.			
Hazel dormouse	The site is not suitable for dormice due to the lack of habitat on site which dormice typically use. The site is not connected to suitable habitats within the wider landscape.	No impacts are anticipated on hazel dormice as a result of the proposed development.	None.	None.
Hedgehog	The site does not provide habitats which hedgehogs can use for seeking shelter, foraging or hibernating. The site is open and can be used by commuting hedgehogs.	The south of site will be impacted by landscaping and re-paving during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of commuting urban hedgehogs, if present.	A precautionary working method will be implemented during construction, including the following measures: - Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. - The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. - Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. - If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.	None.
Otter and Water Vole	The site is not suitable for otters and water voles due to the lack of habitats on site. The surrounding landscape is not suitable for water voles due to the lack of water courses which they typically use	No impacts are anticipated on otters and water voles as a result of the proposed development.	None.	None.

	and urban location. The estuary could be used by otters, although there are no habitats which could be used for holt creation.			
Birds	The site offers limited suitability for nesting and foraging birds, which is restricted to the trees to the south of site and small section of introduced shrubs. The buildings do not provide nesting opportunities. The site is not suitable for wintering or ground nesting birds, or barn owls.	The trees will be retained, however, the introduced shrubs will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.	The installation of four bird boxes at the site will provide additional nesting habitat for birds. The bird boxes will be installed on retained buildings or trees. General purpose bird boxes should be positioned 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Species-specific bird boxes should be installed in line with manufacturers specifications.
Invertebrates	The site offers limited suitability for common invertebrate assemblages, which is restricted to the trees to the south of site and small section of introduced shrubs.	The trees will be retained, however, the introduced shrubs will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates: • Planting native trees and shrubs. • Installation of insect boxes.

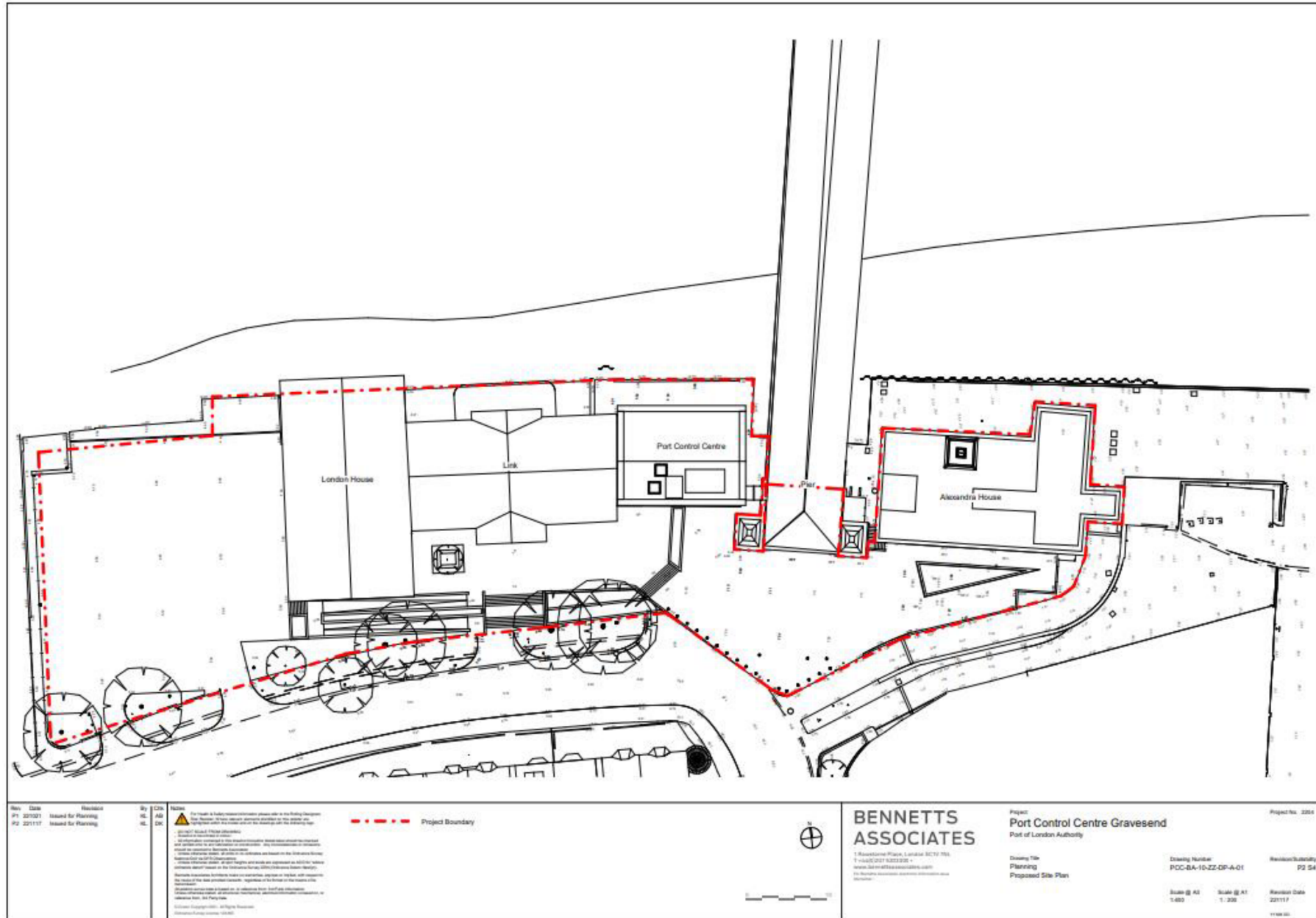
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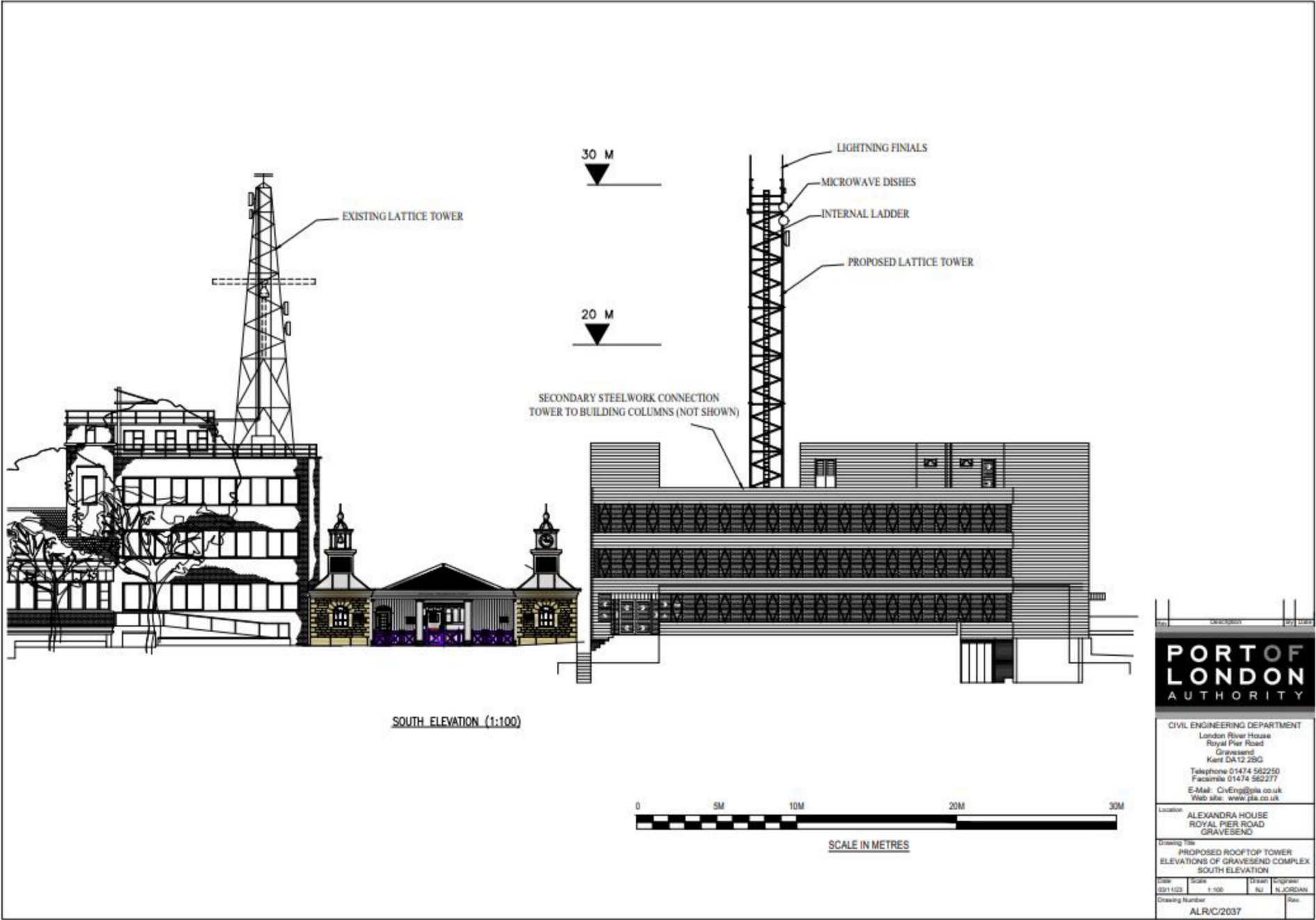
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Appendix 1: Proposed Development Plan









Appendix 2: Site Location Plan



Appendix 3: Habitat and PRA Survey Plan



Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

Annex II species (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

Annex IV species (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

Annex V species (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*”. However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CROW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof

- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A development licence will be required from the relevant countryside agency (i.e. Natural England) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it 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
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Amphibians and Reptiles

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water Voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSL. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Hazel Dormice

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

The relevant countryside agency (i.e. Natural England) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and

executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation Afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation of Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY***Environment Act 2021***

The Environment Act 2021 (EA 2021) received Royal Assent on 9 November 2021 and is expected to become fully mandated within the next couple of years. The Act principally creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England (subject to exemptions which is likely to include householder applications) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. This will ensure the delivery of a minimum of 10% measurable biodiversity net gain. The principal tool to calculate this will be the Defra Biodiversity 3.0 Metric. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.