The Progress Power (Gas Fired Power Station) Order

10.5 Outline Ecological Management Strategy

Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

PINS Reference Number:	EN010060
Document Reference:	10.5
Regulation Number:	r5(2)(q)
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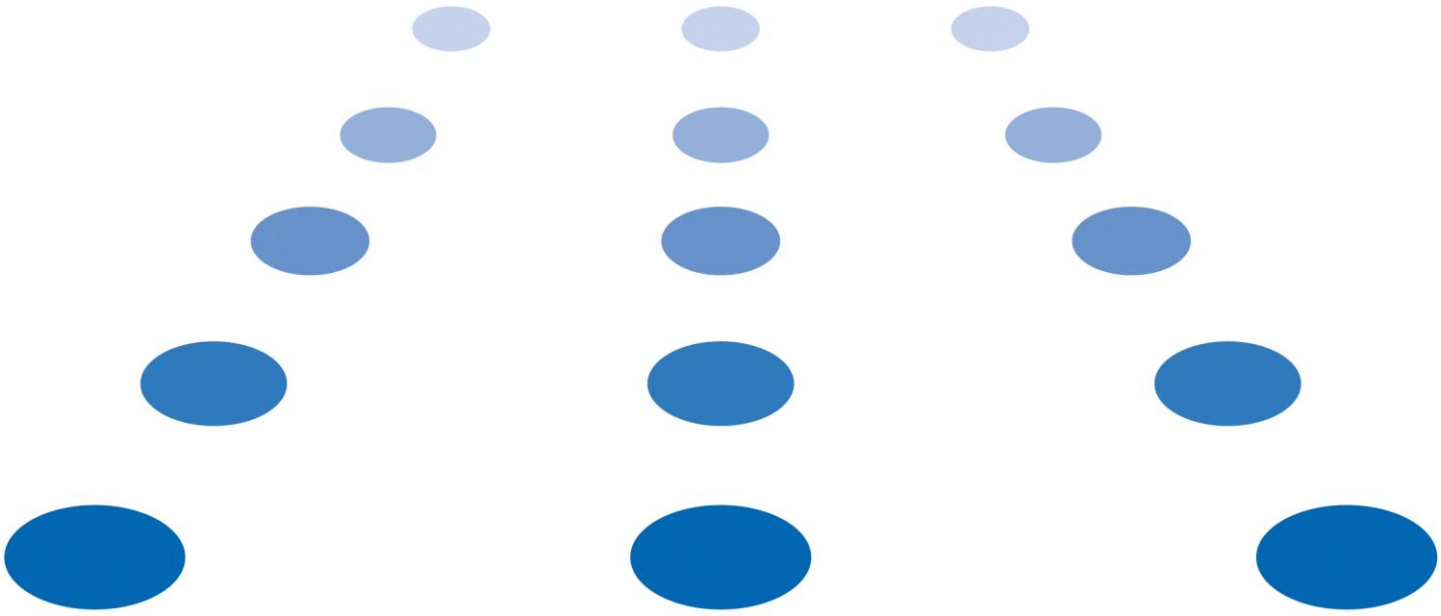
Revision	Date	Description
0	March 2014	Submission version
1	September 2014	Examination version: (in response to First Round Examination Authority Questions and discussions between the parties)



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August 2014

OUTLINE ECOLOGICAL MANAGEMENT STRATEGY: PROGRESS POWER

Project

Progress Power

3512438B

Reissued for Deadline II

Outline Ecological Management Strategy: Progress Power Project

3512438B

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Report Title	**:**	**Outline Ecological Management Strategy: Progress Power Project**
Report Status	**:**	**Final**
Job No	**:**	**3512438B**
Date	**:**	**August 2014**

DOCUMENT HISTORY AND STATUS

Document control			
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Approved by	Andy Gregory	**Checked by** *(quality assurance)*	Ursula Digby

Revision details			
Version	**Date**	**Pages affected**	**Comments**
1.0	March 2014		
2.0	August 2014	11, 13-15, 17	Amended following completion of additional surveys

CONTENTS

1 INTRODUCTION

1.1 Background

1.1.1 This Ecological Management Strategy is prepared to support a Development Consent Order (DCO) Application for the Progress Power Project at the former Eye Airfield located in Eye, Mid Suffolk, England. The Project comprises a new Power Generations Plant, Electrical Connection and Gas Connection.

1.1.2 The Strategy sets out all proposed ecological mitigation measures as detailed in the Ecological Impact Assessment (EcIA) as part of an Environmental Statement (ES) and provides a framework for their implementation. The structure of the document follows the structure set out in the ES. Initially, mitigation proposed for Valued Ecological Receptors (VERs) is described with reference made to European Protected Species (EPS) where appropriate. This is followed by a description of mitigation measures proposed for the receptors considered for the Natural Features assessment.

1.1.3 This Outline Strategy is the precursor to a more detailed Ecological Management Plan which will be prepared should the application be successful.

1.2 Embedded Design Mitigation

1.2.1 The design of the final Project layout has been an iterative process informed by the ecological survey results. The Extended Phase 1 Habitat Survey reports (April 2013[1] and July 2013[2]), tree bat assessment[2] and GCN surveys[3] in particular were consulted to create an ecological constraints map which was used to inform the final layout. The DCO application boundary was adjusted to avoid direct effects on mature trees (with potential to support bats) and waterbodies and the immediate terrestrial habitat suitable to support GCN. As far as possible, the final layout has avoided many habitats and features that would likely have been assessed as VERs.

2 ECOLOGICAL MANAGEMENT STRATEGY

2.1 Valued Ecological Receptors (VERs)

Statutory Designated Sites

2.1.1 Seven sites (Redgrave and Lopham Fens Ramsar, Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR); Waveney & Little Ouse Valley Fens Special Area of Conservation (SAC); Major Farm, Braiseworth SSSI; Gypsy Camp Meadows, Thrandeston SSSI; and The Pennings, Eye Local Nature Reserve (LNR)) are considered to be VERs for one or more of the species / habitats for which each of the sites are designated.

2.1.2 No significant construction, operation or decommissioning impacts were identified for these VERs and therefore no mitigation measures are required.

Non-statutory Designated Sites

[1] Parsons Brinckerhoff (April 2013) Extended Phase 1 Habitat Survey: Progress Power Project Connections. Prepared on behalf of Progress Power Ltd.
2 Parsons Brinckerhoff (July 2013) Extended Phase 1 Habitat Survey: Progress Power Project Connections. Prepared on behalf of Progress Power Ltd.
3 Parsons Brinckerhoff (August 2014) Phase 2 Great Crested Newt Report: Progress Power Project Connections. Prepared on behalf of Progress Power Ltd.

2.1.3 All three non-statutory designated sites (Braiseworth Wood / Steggall's Wood County Wildlife Site (CWS), Mellis Common CWS and Thrandeston Marsh CWS) within 2 km of the Project Site, are considered to be VERs for one or more of the species / habitats for which the sites are designated.

2.1.4 Construction impacts in relation to increased levels of noise, vibration and lighting; and pollution caused by increased levels of dust, use of hazardous materials and incidental release of chemicals, fuels or waste materials will be reduced/avoided through measures detailed in the Construction Environmental Management Plan (CEMP), which will be implemented during construction.

2.1.5 No significant operation (given the embedded design mitigation of stack heights which reduces effects on air quality) or decommissioning impacts were identified and therefore no mitigation measures are required.

Habitat VERs

2.1.6 The following habitat types have been identified as VERs in relation to different components of the Project: semi-natural broadleaved woodland, species rich hedgerow with trees, standing water, species poor intact hedgerow and species poor hedgerow with trees.

2.1.7 Construction impacts in relation to pollution caused by increased levels of dust, use of hazardous materials and incidental release of chemicals, fuels or waste materials will be reduced / avoided through measures detailed in the CEMP, which will be implemented during construction.

2.1.8 Habitat degradation during construction will be mitigated through the demarcation of root protection zones within which construction activities will not be undertaken. Detailed measures will be agreed as part of the CEMP.

2.1.9 Habitat loss during construction will be mitigated through the landscaping strategy for the Project, which will incorporate significant hedgerow and woodland habitat planting providing a net gain in habitat quantity and quality, and will also improve the green infrastructure (habitat connectivity) across the arable landscape.

2.1.10 The landscape strategy around the Electrical Connection Compound Site using AIS technology will, depending on the final agreed landscaping plans, include the creation of approximately 1.6 ha of woodland, 0.5 ha of grassland, 674 m of hedgerow and will retain approximately 260 m of existing hedgerow. The landscape strategy around the Electrical Connection Compound Site using GIS technology will include the creation of approximately 0.6 ha of woodland, 0.2 ha of grassland, 413 m of hedgerow and will retain approximately 510 m of existing hedgerow. The landscape strategy around the Sealing End Compound will lead to the creation of 0.04 ha of grassland and 166 m of hedgerow. The landscape strategy around the Power Generation Plant will lead to the creation of 0.7 ha woodland and 0.1 ha scrub. The landscape strategy around the Above Ground Installation will lead to the creation of 0.5 ha woodland and 245 m of hedgerow.

2.1.11 Standing water will be subject to habitat loss localised to a very small section of the existing ditch along the Access Road. This is required to facilitate the slightly wider Access Road (in comparison with the existing track). The loss of the small section of the wet ditch is not considered to be significant as the integrity of the waterbody will not be affected and works will be very localised. The disturbance in the form of increased dust levels from construction and pollution from incidental release of chemicals, fuels

or waste materials and will be mitigated through the implementation of the CEMP. A surface water retention pond will be created within the Power Generation Plant Site which will compensate for the small localised reduction in size of the wet ditch on a Project level.

2.1.12 During operation only standing water could potentially be affected by pollution however the road drainage design will not allow road drainage to enter Yaxley Lake therefore impacts will be avoided.

2.1.13 Decommissioning impacts would be eliminated through the implementation of an Environmental Management Plan which will avoid/minimise generation of excessive litter, dust, noise and vibration and will prevent accidental pollution of adjacent habitats. Monitoring will ensure the measures are effective. These measures will be in line with latest guidance and legislative requirements in force at the time of decommissioning.

Species VERs

Brown hare – Priority species

2.1.14 Construction will result in habitat loss and fragmentation for brown hare and will be mitigated through the landscaping strategy for the Project which will incorporate significant hedgerow and woodland habitat planting providing a net gain in habitat quality, and will also improve the green infrastructure (habitat connectivity) across the arable landscape. Construction impacts will also be minimised through the implementation of a CEMP.

2.1.15 Disturbance from operational activities including visual, and lighting will be mitigated through the lighting scheme for the Project which will ensure minimal light spillage and directional lighting therefore ensuring that compensatory habitat is not lit and is suitable for use as commuting and refuge for wildlife. The general design principles that will be used to minimise the impact on key lighting receptors and to meet environmental requirements are:

2.1.16 To design for optimal light levels which provide enough illumination to safely undertake operational activities while limiting their impact on sensitive receptors;

2.1.17 To locate significant sources of lighting away from sensitive landscape and ecological receptors;

2.1.18 To include full cut-off luminaires to prevent upward light with shields and baffles that can be directed downwards rather than horizontally to limit light pollution onto sensitive areas;

2.1.19 To use columns of a minimum height. When lighting large areas preference would be given to several lower units rather than tall wide beam lighting units to limit light trespass, glare and sky glow;

2.1.20 To use controls to avoid unnecessary illumination and to ensure efficient luminaires are used;

2.1.21 Further details are set out in the outline lighting principles strategy

2.1.22 Decommissioning impacts would be eliminated through the implementation of an Environmental Management Plan which will avoid/minimise generation of excessive litter, dust, noise and vibration and will prevent accidental pollution of adjacent habitats.

In addition work locations (including accesses) will be designed to avoid/minimise impacts. Monitoring will ensure the measures are effective. These measures will be in line with latest guidance and legislative requirements in force at the time of decommissioning.

Foraging and commuting bats – European Protected Species

2.1.23 Construction will result in habitat loss and fragmentation for foraging and commuting bats and will be mitigated through the landscaping strategy for the Project. The landscaping strategy will incorporate significant hedgerow and woodland habitat planting providing a net gain in habitat quality, and will also improve the green infrastructure (habitat connectivity) across the arable landscape. Construction impacts will also be minimised through the implementation of a CEMP.

2.1.24 Disturbance from operational activities including visual, and lighting will be mitigated through the lighting scheme for the Project. The lighting scheme will ensure minimal lighting across the Project essential for safety and security. All external lighting columns will be fitted with baffles, cowls or louvres to direct the light to where it is needed and minimise light spillage. None of the compensatory habitat planting will be lit, in order for the new habitat to be functional as foraging and commuting habitat. Lighting principles are identified above, and in the outline lighting principles strategy.

2.1.25 Decommissioning impacts would be eliminated through the implementation of an Environmental Management Plan which will avoid/minimise generation of excessive litter, dust, noise and vibration and will prevent accidental pollution of adjacent habitats. In addition work locations (including accesses) will be designed to avoid/minimise impacts. Monitoring will ensure the measures are effective. These measures will be in line with latest guidance and legislative requirements in force at the time of decommissioning.

Breeding birds

2.1.26 Construction will result in habitat loss and fragmentation for breeding birds and will be mitigated through the landscaping strategy for the Project. The landscaping strategy will incorporate significant hedgerow and woodland habitat planting providing a net gain in habitat quality, and will also improve the green infrastructure (habitat connectivity) across the arable landscape. It is acknowledged that a net loss of arable land will occur however this is not considered to be limiting factor to the breeding bird assemblages (including skylarks a priority species) given the availability of this habitat in the wider area (ES 8.11.58). The parties remain in discussion over the need for offsite mitigation/compensatory measures for this species and the EMS will be updated accordingly.

2.1.27 Disturbance to breeding birds will be reduced through the implementation of the following measures:

- All clearance works will be undertaken outside the nesting season thereby reducing disturbance to active bird nests. This is widely considered to be from March to August inclusive, but can vary depending on the species and / or seasonal conditions. Where vegetation cannot be removed outside of the nesting season, pre-clearance checks will be undertaken by an experienced ecologist to identify if any birds are nesting within or close to the vegetation due to be removed. An informed decision would then be made if the vegetation clearance can be

undertaken. If a bird nest is found, it must be left in-situ and protected from works; no works can be undertaken in that area until the young birds have fledged from the nest site. This may take several weeks and will vary depending on the species.

- All construction works will be taking place between 07:00 and 19:00 hours which will limit the impact to roosting birds. All construction related lighting will be designed and fitted to minimise any adverse impacts on the retained surrounding vegetation. Such measures include the use of hoods and cowls and directional lighting away from features such as hedgerows and scrub.

2.1.28 Disturbance from operational activities including visual, noise and lighting will be mitigated through the lighting scheme for the Project. The lighting scheme will ensure minimal lighting across the Project essential for safety and security. All external lighting columns will be fitted with baffles, cowls or louvres to direct the light to where it is needed and minimise light spillage. None of the compensatory habitat planting will be lit, in order for the new habitat to be functional as foraging and commuting habitat.

2.1.29 Decommissioning impacts would be eliminated through the implementation of an Environmental Management Plan which will avoid/minimise generation of excessive litter, dust, noise and vibration and will prevent accidental pollution of adjacent habitats. In addition work locations (including accesses) will be designed to avoid/minimise impacts. Monitoring will ensure the measures are effective. These measures will be in line with latest guidance and legislative requirements in force at the time of decommissioning.

Wintering birds

2.1.30 Construction will result in habitat loss and fragmentation for wintering birds and will be mitigated through the landscaping strategy for the Project. The landscaping strategy will incorporate significant hedgerow and woodland habitat planting providing a net gain in habitat quality, and will also improve the green infrastructure (habitat connectivity) across the arable landscape.

2.1.31 All construction related lighting will be designed and fitted to minimise any adverse impacts on the retained surrounding vegetation. Such measures include the use of hoods and cowls and directional lighting away from features such as hedgerows and scrub. In addition the Cable and Pipeline components of the project will be built during the spring and summer and therefore will avoid impacts on wintering bird assemblages.

2.1.32 Disturbance from operational activities including visual, noise and lighting will be mitigated through the lighting scheme for the Project. The lighting scheme will ensure minimal lighting across the Project essential for safety and security. All external lighting columns will be fitted with baffles, cowls or louvres to direct the light to where it is needed and minimise light spillage. None of the compensatory habitat planting will be lit, in order for the new habitat to be functional as foraging and commuting habitat.

2.1.33 Decommissioning impacts would be eliminated through the implementation of an Environmental Management Plan which will avoid/minimise generation of excessive litter, dust, noise and vibration and will prevent accidental pollution of adjacent habitats. In addition work locations (including accesses) will be designed to avoid/minimise impacts. Monitoring will ensure the measures are effective. These measures will be in line with latest guidance and legislative requirements in force at the time of decommissioning.

Great crested newts – European Protected Species

2.1.34 The assessment in the ES is based on the realistic worst case scenario whereby the presence of medium GCN population was assumed present in all suitable waterbodies and terrestrial habitat.

2.1.35 As referred to in the ES, further great crested newt presence/absence surveys were undertaken in 2014 and the survey results are presented in the Great Crested Newt Survey Report: Progress Power Project June 2014 report.

2.1.36 As part of this work a total of 44 water bodies situated within 500 m of the project site were subject to a Habitat Suitability Index (H.S.I) assessment in March 2014. Following the H.S.I assessment a total of 22 ponds were considered for further GCN presence/absence surveys. These include ponds: 1, 2, 3, 7, 11, 12, 13, 14, 18, 23, 24, 25, E23, E25, E26, E27, E28, E29, E35, E38, E39 and E45. In total 17 ponds could be surveyed in 2014 (five could not be accessed – these were, however, located over 250 m from the boundary of the Power Generation Plant component of the Proposed Development). Likely absence of GCN was established in all ponds subject to survey.

2.1.37 The geographical coverage of the survey data indicates that likely absence was established within 500 m of the Electrical Connection and Gas Connection components of the Proposed Development. In accordance with the likely absence of GCN in this area no impacts are envisaged on GCN in relation to the construction, operation or decommissioning of the Electrical Connection and Gas Connection components of the Proposed Development. The mitigation previously detailed in relation to this species in the ES (on a precautionary basis) will still be implemented and as such it is considered that this will likely lead to a net biodiversity gain for a range of other species.

2.1.38 The water bodies in cluster 1, 2, 3, 18 and 25 could not be accessed for GCN survey in 2014. This cluster is situated within 500 m but more than 250 m from the boundary of the Power Generation Plant component of the Proposed Development. Given the distance of the Power Generation Plant site to the ponds and the size of the area affected, the Proposed Development is considered to result in an amber 'offence likely' risk level if GCN were present. However, in line with the guidelines, it is considered that with additional non-licensed avoidance measures implemented, the risk can be reduced to a negligible level and works may proceed under a non licensed method statement.

2.1.39 When considering the risk to the GCN population potentially present within the water body cluster additional consideration must be given to:

- habitat quality and type (arable field and the small amount of grassland both present low suitability for GCN);
- likely dispersal corridors (no suitable breeding ponds are present within 500 m of the ponds not subject to 2014 survey in the direction of the Power Generation Plant site which would encourage GCN movement across and into the site; the habitat present dictates that the likely movement of the GCN population would be focused to the north and west away from the Power Generation Plant);
- barriers to movement (the area directly between the water body cluster (ponds 1, 2, 3, 18 and 25) and the Power Generation Plant site consists almost entirely of handstanding more than 200 m wide and is considered a barrier to GCN movement; the closest possible route across non-hardstanding habitat is via the arable land more than 350 m away and includes the 30-40 m wide former runway as a barrier to GCN movement).

- In addition to the above, one pond within the cluster had previously been surveyed in 2013 with likely absence established.

2.1.40 Based on the above information it is considered that should GCN be present in the cluster of ponds where access for survey was not possible in 2014, it is highly unlikely that they would be using the Power Generation Plant site and therefore the risk of committing an offence is significantly reduced. Therefore, the need for a mitigation licence in relation to the Proposed Development is not considered necessary, given the low risk of committing an offence. The residual low risk will be managed through the implementation of a site specific Method Statement which will be developed in conjunction with the main contractor.

2.1.41 The Method Statement should contain the following principles:

- In instances where there is a risk to GCN, then supervision of vegetation clearance will be undertaken by an Ecological Clerk of Works.
- In instances where there is a risk to GCN,, backfill trenches and other excavations before nightfall, leave a ramp to allow newts to easily exit or consider alternative measures in consultation with the ECoW.
- Raise stored materials (that might act as temporary resting places) off the ground, e.g. on pallets.
- If GCN are found to be present within the development site, all works must stop immediately and specialist advice sought from ECoW.
- Details for construction of amphibian hibernacula

2.1.42 The landscape strategy will lead to a net gain in both the quality and quantity of available suitable GCN terrestrial habitat. It will also maintain habitat connectivity. Specific habitat features will also be provided, including the creation of at least two purpose-built hibernacula. Please note that the landscape strategy will be put in place even if GCN are not present.

2.1.43 During operation only suitable breeding ponds (standing water) could potentially be affected by pollution however the Project drainage will be designed so that there is no risk of run-off or contamination into surrounding waterbodies or other habitats (a standard requirement of the Environment Agency).

2.1.44 Decommissioning impacts would be eliminated through the implementation of an Environmental Management Plan which will avoid/minimise generation of excessive litter, dust, noise and vibration and will prevent accidental pollution of adjacent habitats. In addition work locations (including accesses) will be designed to avoid/minimise impacts. Monitoring will ensure the measures are effective. These measures will be in line with latest guidance and legislative requirements in force at the time of decommissioning.

2.2 European Protected Species

2.2.1 The EPS identified in relation to the Project are the great crested newt and bats which are discussed above in the relevant VER sections

2.2.2

2.3 Natural Features Receptors

2.3.1 In addition to the assessment of significant effects presented in the ES, it is also necessary to consider all potential effects on natural features, not just those effects which are significant in EIA terms.

Statutory Designated Sites

2.3.2 The six designated sites within 10 km of the Project Site (Burgate Wood SSSI, Hoxne Brick Pit SSSI, Wortham Ling SSSI, Shelfanger Meadows SSSI, Westhall Wood & Meadow SSSI and Royden Fen LNR) are considered to be outside the zone of influence of potential air quality impacts and no other pathways of potential impact are present, therefore no mitigation measures are considered necessary.

Habitat Receptors

2.3.3 The following habitat types have been identified as Receptors in relation to different components of the Project: dense scrub, scattered scrub, broadleaved scattered trees, poor semi-improved grassland, standing water, arable and dry ditch.

2.3.4 Impacts on habitats are envisaged to be habitat loss and fragmentation which will be mitigated through the landscaping strategy for the Project. The landscaping strategy will incorporate significant hedgerow and woodland habitat planting providing a net gain in habitat quality and quantity, and will also improve the green infrastructure (habitat connectivity) across the arable landscape. Some grassland planting will also be included in the landscape strategy.

2.3.5 Habitats subject to disturbance in the form of increased dust levels from construction and pollution from incidental release of chemicals, fuels or waste materials and will be mitigated through the implementation of the CEMP.

2.3.6 In addition earth bank, buildings and hardstanding were also present however given their limited nature conservation value no mitigation was considered necessary.

Badgers

2.3.7 No setts or evidence of use were recorded, however the Project Site may occasionally be used for dispersal. No direct impacts are envisaged on this species, however badgers are present in the wider area and may colonise the Project Site. Mitigation for this will consist of a re-survey for badgers of the Project Site prior to construction activities proceeding.

Roosting bats

2.3.8 No suitable roosting habitat was recorded within Project Site, however potential roosting site are situated outside the Project Site which could be subject to disturbance from construction activities including visual, noise and lighting and will be mitigated through the implementation of the CEMP.

Reptiles

2.3.9 Surveys revealed one incidental sighting of grass snake north of Project Site and given the highly mobile nature of this species their presence is assumed in all suitable habitats within the Project Site. Suitable reptile habitat will be lost during the construction of the Project and vegetation clearance works could kill or injure reptile

species. This will be mitigated through supervision by an Ecological Clerk of Works and sensitive vegetation cutting prior to Construction. Landscaping proposals will create suitable reptile habitat.

3 DELIVERY MECHANISM

3.1 Construction

3.1.1 Mitigation will be implemented as per the contract of works with the Main Contractor, and are likely to include the CEMP, compliance with Pollution Prevention Guidelines, installation of physical site boundary barriers, lighting scheme, Soil Management and Habitat Restoration Strategy, Pre-construction survey for badgers, and Reptile Method Statement.

3.1.2 An Ecological Clerk of Works will be appointed for the duration of the Construction works and this will ensure that all necessary ecological mitigation measures identified and method statements are implemented and pre-construction species surveys are undertaken.

3.1.3 Meetings with the relevant Local Authorities will be held to update on ecological survey findings and mitigation measures. The details of reporting and meetings with the relevant Local Authorities will be agreed as part of the Ecological Management Plan which will be submitted under draft DCO Requirement 10

3.1.4 The mitigation will be implemented before and during construction and will be a DCO Requirement. Implementation of the CEMP and the other measures during construction will be the responsibility of the Main Contractor.

3.2 Operation

3.2.1 During operation two mitigation measures are proposed: a lighting scheme to reduce disturbance from operational lighting and a drainage design to avoid pollution of waterbodies. Both will provide for ongoing maintenance activities and will be implemented by the site staff operating on site at the time.

3.3 Decommissioning

3.3.1 The implementation of a Decommissioning Environmental Management Plan will be completed as per the contract of works by the Main Contractor. Monitoring will ensure the measures are effective. These measures and responsibilities will be in line with latest guidance and legislative requirements in force at the time of decommissioning. Baseline conditions (including identification of VERs, impact assessment and suitable mitigation measures) **will need to be re-assessed before decommissioning**.