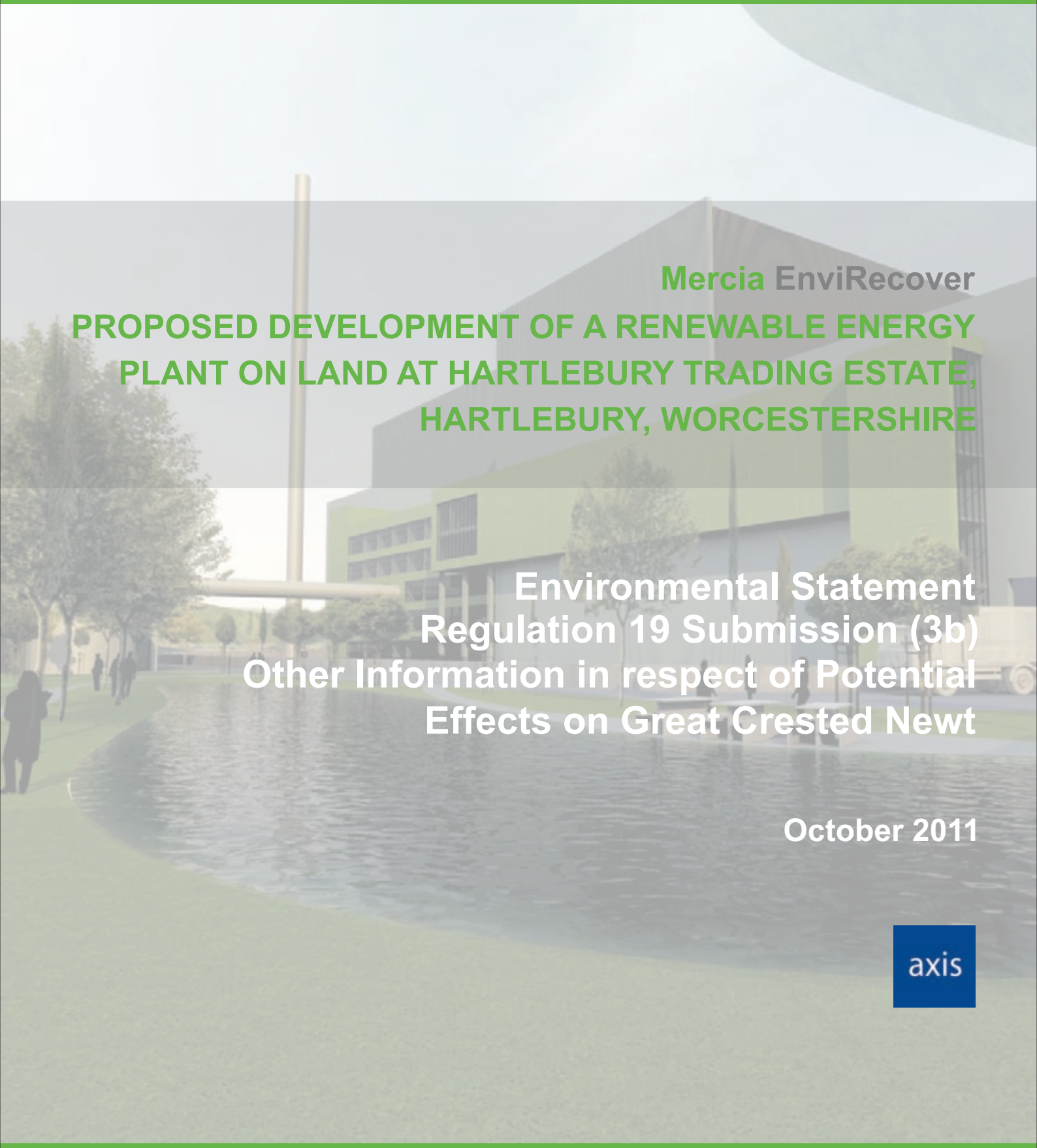

Mercia EnviRecover

PROPOSED DEVELOPMENT OF A RENEWABLE ENERGY PLANT ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

Environmental Statement Regulation 19 Submission (3b) Other Information in respect of Potential Effects on Great Crested Newt

October 2011

Mercia EnviRecover

PROPOSED DEVELOPMENT OF AN ENERGY FROM WASTE FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

ENVIRONMENTAL STATEMENT
REGULATION 19 SUBMISSION (3b)

OTHER INFORMATION IN RESPECT OF POTENTIAL EFFECTS ON GREAT CRESTED NEWT

OCTOBER 2011

This report has been prepared in support of the planning application for the Mercia EnviRecover Development on behalf of Mercia Waste Management. The application has been co-ordinated by Axis with technical inputs from:

- AXIS – Planning, Transportation, Landscape & Visual, Archaeology & Cultural Heritage, Surface Waters & Flood Risk
- Hyder - Geology & Hydrogeology
- Fichtner – Facility Design, Process Description and Justification, Air Quality & Health Assessment
- Argus – Ecology and Nature Conservation
- NVC – Noise
- Studio E – Facility Design and Architecture

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SK9 5BB

CONTENTS

FOREWORD

This Environmental Statement is submitted in support of a planning application made by Mercia Waste Management to develop the Mercia EnviRecover facility an Energy from Waste facility, on land at Hartlebury Trading Estate in Worcestershire. The Environmental Statement comprises the following documents:

- The Environmental Statement (ES) Main Report (Volume 1), which contains the detailed project description; an evaluation of the current environment in the area of the proposed development; the predicted environmental impacts of the scheme; and details of the proposed mitigation measures which would alleviate, compensate for, or remove those impacts identified in the study. Volume 1 also includes a summary of the overall environmental impacts of the proposed development and all relevant schematics, diagrams and illustrative figures;
- Technical Appendices (Volume 2), which include details of the methodology and information used in the assessment, detailed technical schedules and, where appropriate, raw data. (Volume 2 is printed in black and white. However, a CD is enclosed that includes a colour version of all the technical reports);
- A Non-Technical Summary (Volume 3), containing a brief description of the proposed development and a summary of the ES, expressed in non-technical language;
- An update to the ES by way of a series of Regulation 19 submissions of further environmental information, comprising:
    - A Reptile Survey and Mitigation Plan (Regulation 19 Submission No.1)
    - A Revised Non-Technical Summary (Volume 3) with addition of a description of the main alternatives considered by the applicant (Regulation 19 Submission No.2a);
    - An assessment of the likely significant environmental effects of the facility's electrical grid connection (Regulation 19 Submission No.2b);
    - An assessment of the likely significant environmental effects of a heat off-take connection to Wienerberger's Waresley brickworks site, Hartlebury Trading Estate (Regulation 19 Submission No.3a); and
    - An update on potential effects on Great Crested Newts (Regulation 19 Submission No.3b).

Copies of the first three documents, as a three volume set, are available at a cost of £200 from Mercia Waste Management, The Marina, Kings Road, Evesham,

Worcestershire, WR11 3XZ. Alternatively, the original and Revised Non-Technical Summary documents can be purchased on their own from the same point of contact for £15 each. Electronic copies of the Non-Technical Summaries are also available via email (enquiries@severnwaste.co.uk), free of charge. The Regulation 19 update documents are available as a complete set for £50. In addition, all of the planning application documentation, including the ES and Regulation 19 updates can be downloaded from www.envirecover.co.uk.

1.0 INTRODUCTION AND BACKGROUND

Introduction

1.1 In April 2010 Mercia Waste Management (MWM) submitted a planning application, reference 10/000032/CM, to Worcestershire County Council (WCC) for the development of a purpose built Energy from Waste (EfW) plant, on land at Hartlebury Trading Estate, Hartlebury, Worcestershire. The application was accompanied by an Environmental Statement (ES).

1.2 The planning application was duly considered by the WCC Planning and Regulatory Committee on the 1st March 2011. The Committee resolved to approve the application. On the 10th May 2011 the application was 'called in' for determination by the Secretary of State. A Public Inquiry into the proposed development will commence on the 22nd November 2011.

1.3 An ecological assessment of the proposed development was included within the Environmental Statement which accompanied the planning application. The ecological assessment concluded that the development was unlikely to result in significant impacts on great crested newt (GCN) populations in the local area, a species protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2011 (the Habitats Regulations). However, subsequent survey and ecological work carried out by MWM has revealed the presence, albeit in very limited numbers, of GCN on the application site. As a consequence MWM has submitted this supplement to the ES in order to fully evaluate this matter.

Requirement for Environmental Assessment

1.4 As described above, the original ES evaluated the potential effects of the Mercia EnviRecover scheme on GCN. In light of new environmental information pertaining to the presence of GCN within and around the application site, the ES needs updating.

This Document

1.5 This document is a supplement to the original ES. It has been produced to provide a summary of the work undertaken prior to and following submission of the planning application with respect to GCN and to provide

an update on the status of GCN at the site. It has been submitted under Regulation 19 of The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended) as *"Further information and evidence respecting environmental statements"*. In this instance the information contained within this report is provided voluntarily by the applicant as *Other Information* specifically for the purposes of an Inquiry held under the Town and Country Planning Act 1990.

1.6 The document has been divided into 10 discrete sections of which this Introduction forms the first. Section 2.0 provides a summary of the ecological information relating to GCN collated as part of the planning application and describes the consultation held with Natural England during the planning application determination period (i.e. prior to the Waste Planning Authority's consideration of the planning application). Section 3.0 of the report provides a summary of GCN surveys conducted by MWM in 2011. Section 4.0 of the report describes information relating to GCN that has arisen as a result of an ongoing reptile translocation exercise at the proposed development site and the subsequent consultations with Natural England. In particular it describes how GCN have been found on the Mercia EnviRecover application site. Section 5.0 sets out the mitigation works that are now proposed in order to address GCN on the site and Section 6.0 provides a full evaluation of risks to the species following implementation of the mitigation measures.

1.7 Sections 7.0, 8.0 and 9.0 then address (respectively) the three statutory tests that must be met before Natural England can grant a derogation licence for the GCN mitigation proposals (in the event that planning permission is granted). In the light of the guidance laid down by the Supreme Court in *Morge* ([2011] UKSC 2), the Secretary of State (in his role as a competent authority), having regard to the requirements of the Habitats Directive, should only refuse planning permission where he concludes that Natural England would be <u>unlikely</u> to grant a licence. Further, that where he has any doubt on the matter, that doubt should be resolved in the Applicant's favour and (all other things being equal) planning permission granted. The three tests are, that a licence can be granted:

- for the purposes of "*preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*".
- where the appropriate authority is satisfied "*that there is no satisfactory alternative*".
- where the appropriate authority is satisfied "*that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*"

1.8 Finally, Section 10.0 of the report sets out some concise conclusions.

2.0 BACKGROUND ECOLOGICAL INFORMATION RELATING TO GREAT CRESTED NEWT

2.1 A search of biological records for the local area was undertaken as part of the ecological assessment reported within the original Environmental Statement. This indicated that the closest recorded GCN breeding pond to the site was located approximately 600m to the north east of the site boundary. A Phase 1 habitat survey of the site showed that there were no waterbodies within the site that were likely to support GCN.

2.2 One pond was identified within 250m of the site, approximately 25m to the north of the site boundary. It is accepted practice that ponds within 250m of a potential development site present the highest risk with regard to potential effects on GCN (English Nature, 2001). As such a habitat suitability index assessment was undertaken. The survey score of 0.47 equated to poor suitability for GCN and thus the pond did not warrant further detailed survey.

2.3 There is poor habitat connectivity to ponds beyond 250m from the site. To the south of the site are industrial developments and estate roads which would present a barrier to dispersal from ponds to the south. Approximately 300m to the north east of the site are two potentially suitable GCN ponds. However, connectivity to the site is poor with access via a narrow strip of land (c.10 m in width) that is bounded on one side by industrial development and the other an active quarry. To the immediate east of the

aforementioned ponds is abundant suitable terrestrial habitat including grazing pasture, hedgerow and scrub thus further reducing the likelihood that GCN would choose to disperse through Middle Covert Wood to the development site. On the basis that there is poor habitat connectivity between the site and ponds beyond 250m the potential for the dispersal of newts to the site was considered to be low. As such additional surveys were not considered necessary and it was concluded that the development was unlikely to result in significant impacts on GCN populations in the surrounding area.

2.4 As part of the scoping process in preparation of the Environmental Statement WCC requested that reptile surveys were undertaken at the site, these surveys were undertaken in the spring of 2010 and reported within the Reptile Survey and Mitigation Plan (V2.1, July 2010). This report was submitted to WCC under Regulation 19 of the EIA Regulations 1999.

2.5 A total of 20 reptile surveys were undertaken between 7th April and 1st July 2010. Whilst not undertaken specifically for this purpose, artificial refuge searches are a recognised technique for identifying GCN within terrestrial habitats. The number of refugia deployed was double the recommended standard for reptile presence / absence surveys and the placement of the refugia included habitats likely to have been used by GCN if present. No GCN were identified during the survey period.

2.6 Following submission of the planning application Natural England lodged a holding objection. The objection cited that the application was accompanied by insufficient GCN survey information, specifically in relation to ponds between 250m and 500m of the site. As a result a meeting was held between Mercia Waste Management, Natural England and WCC Nature Conservation Officers to discuss the surveys conducted in support of the application. Following the meeting a clarification note was issued to Natural England and WCC summarising the survey evidence in relation to GCN and the reasons for the conclusions presented in the ecological assessment.

2.7 The clarification note discussing GCN issues is included as Appendix A to this report. In summary the note acknowledges that there are ponds within 500m of the site that could have the potential to support populations of

GCN, specifically ponds approximately 300 – 330m to the north east of the site. However, on the basis of the reptile survey results, distance to the ponds, the poor terrestrial habitat connectivity between the ponds and the site, and the suitability of terrestrial habitat to the north and east of the ponds it was considered unlikely that GCN would utilise the terrestrial habitat at the proposed development site.

2.8 On the basis of the evidence presented in the Environmental Statement and the subsequent clarification it was agreed that an adequate level of protected species information accompanied the application and that the conclusions presented in the ecological assessment were sound. As a result Natural England withdrew their holding objection to the scheme. The comments provided by Natural England are included within the WCC Planning Committee Report for the proposed development.

3.0 GREAT CRESTED NEWT POND SURVEYS

3.1 Due to the concerns raised during the determination period regarding survey of ponds within 500m of the site it was considered prudent by MWM to conduct GCN presence / absence surveys during the next available survey season i.e. spring 2011. The findings of the surveys are reported in the Mercia EnviRecover Great Crested Newt Survey Report (2011), which is included as Appendix B to this report. The findings of the surveys are summarised in the following paragraphs.

3.2 There are 13 ponds within 500m of the site boundary these ponds are marked on Figure 1. Each pond has been numbered for ease of reference. It was not possible to access Pond 10 as it is located within a private garden. Pond 10 is located to the south of Hartlebury Trading Estate and a number of industrial units, car parks and roads lie between the pond and the site. As such there is unlikely to be dispersal of GCN from this pond to the development site.

3.3 Ponds 3, 4 and 6 were dry after the first visit and it was not possible to survey Pond 8 due to health and safety reasons. Pond 8 has been used as a surface water storage lagoon for operations on the clay site and until recently the lagoon contained a significant volume of water. Operations begun in January 2011 to drain the lagoon. The lagoon is estimated as

being 6m deep with steep sides and no aquatic or marginal vegetation, an image of the lagoon (partially drained) is shown in Plate 8 of Appendix B to this report. A Habitat Suitability Index (HSI) survey was conducted at Pond 8. The HSI score was calculated as 0.33 which classifies the pond as 'poor' in terms of its ability to support a GCN population.

3.4 The presence / absence surveys of the 9 remaining ponds confirmed that GCN were present within 4 ponds, namely Pond 2, 9a, 9b and 11. Additional surveys were carried out in these ponds to provide a population estimate. The results of the surveys are summarised in Table 3.1 below.

Table 3.1 - Population assessment survey results

Pond number	Distance from development plot (m)*	Maximum count	Population estimate
2	466	23	Medium
9a	324	17	Medium
9b	327	21	Medium
11	285	152	Large

*Distances quoted are straight line distances and do not take into account obstructions to migration.

3.5 Pond 2 is a significant distance from the site (466m to the north west) and lies within the Waresley Brickworks Site, an active quarry. The Biffa Landfill Site is also situated between the pond and the proposed development site. As such there is a very low likelihood that GCNs from Pond 2 would utilise the terrestrial habitat at the site.

3.6 Ponds 9a and 9b are the ponds noted in Section 2.0 which lie to the north east of the site. The surveys confirmed these ponds contain breeding GCNs. As noted in Section 2.0 connectivity between the proposed development site and the ponds is poor and it was noted during the 2011 surveys that the narrow habitat corridor present in 2010 has been eroded further by operations within the clay pit. The distance measurements in the table above (324m and 327m) represent the most direct terrestrial route to the development plot. On the basis of the poor connectivity to the site and the availability of suitable terrestrial habitat to the north and east of Ponds 9

and 9a it is considered unlikely that GCNs from these ponds would utilise the terrestrial habitat at the site.

3.7 Pond 11 is the closest pond to the site boundary. However, connectivity to the site is poor. The pond is located on the southern boundary of Hartlebury Trading Estate and the most direct route to the site would involve the crossing of four roads and large areas of hard standing (including 3 office / factory car parks). The figure of 285m included Table 3.1 is an 'as the crow flies' measurement which in reality is not be a route that could be utilised by GCNs. Any route utilising green corridors would be convoluted and would increase the distance to over 500m. As such it is very unlikely that GCNs from Pond 11 would access the site.

3.8 The results of the 2011 surveys did not alter the conclusions presented to Natural England during the consultation in October 2010. Whilst GCN had been confirmed to be present within ponds within 500m of the site no obvious migration routes to/from the site had been identified. In addition there was no clear ecological reasons why a GCN would utilise the proposed development site for terrestrial habitat rather than suitable habitats closer to the identified breeding ponds.

4.0 GREAT CRESTED NEWT INFORMATION RELATING TO REPTILE TRANSLOCATION EXERCISE

Reptile Survey

4.1 The reptile surveys undertaken in 2010 identified the presence of slow worm and grass snake at the site. In order to comply with protected species legislation these species need to be excluded from the areas of the site affected by ground disturbance prior to commencement of any construction works. The Reptile Survey and Mitigation Plan (2010) included proposals for the trapping and translocation of reptiles from the development area to areas of the site not affected by ground disturbance should EnviRecover proceed.

4.2 Given that there are seasonal constraints associated with the trapping and translocation works (and the pressing need to expedite the development subject to planning permission) it was considered appropriate to commence

the translocation works in spring 2011. This would have enabled construction work to commence in autumn 2011, had the application not been called in, or, as now would be the case, early spring 2012 if consent is granted following the Public Inquiry. The reptile translocation works were commenced at the site following consultation with WCC.

4.3 Reptile fencing was erected around the development area in May 2011 and the trapping and translocation of reptiles begun on the 20th May 2011. Habitat improvement works including creation of hibernacula, placement of manure piles for foraging and creation of habitat mosaics was undertaken in the translocation areas prior to commencement of the trapping exercise (i.e. the work was carried out in accordance with the Reptile Survey and Mitigation Plan).

4.4 On the first day of trapping a single juvenile GCN was identified on site, on the 26th May 2011 an adult GCN was found. Upon identification of the second GCN the translocation works were stopped. An assessment of the potential impact on GCN was conducted using the Natural England Rapid Risk Assessment methodology. It was considered unlikely that an offence would be committed by continuing with the translocation exercise. Nonetheless Natural England were consulted on the 27th May 2011 as to whether it would be appropriate to continue with a reptile translocation exercise having identified two individual GCNs. Natural England confirmed that the translocation could continue. However, if any more GCNs were identified it would be necessary to reassess the situation and determine if an offence was likely to occur.

4.5 The reptile translocation exercise was re-commenced on the 29th May 2011. Between this date and mid-September, a further 99 inspections of the 400 artificial refugia placed at the site were undertaken. The artificial refugia measured 0.4 x 0.4 m and were placed across the entire site, including in habitats that may be considered suitable for GCN. During this period no GCN were identified.

4.6 As a result of the prolonged period of having identified no GCN at the site, MWM issued a Position Statement to Natural England on the 17th August 2011. The Position Statement included the findings of the GCN Pond

Surveys, an appraisal of the GCN findings from the reptile translocation works and discussion on the potential ways that GCN could have accessed the site (discussed below). On the basis of the evidence in the Position Statement, the conclusions of MWMs ecologists were that in the light of planning permission being granted, there would be no licensable works required in respect of GCN. MWM sought Natural England's confirmation of this conclusion.

4.7 Natural England did not disagree with the conclusions of the Position Statement and acknowledged the hypothesis as to how the two GCN individuals may have come to be present at the site (discussed below). However, they noted the potential habitat suitability and the legal protection afforded to the species. The letter received from Natural England is included as Appendix C to this report.

4.8 In response to the letter MWM requested a meeting with NE to seek absolute clarity on this matter. However, whilst organising the meeting another GCN was identified at the site (16th September 2011). As agreed previously with Natural England the reptile trapping exercise was stopped and the situation re-evaluated. Natural England was informed of the discovery of the GCN on the 20th September 2011.

4.9 Having considered the evidence included in the Position Statement and the fact that a third GCN had been identified at the site Natural England advised by email communication (see Appendix D) that a mitigation licence would be required to capture and move GCN at the site prior to the commencement of development.

4.10 Whilst it is clearly understood by MWM that Natural England cannot advise on a licence application prior to submission of all the requisite information, the aforementioned email also provided comment on the likely magnitude of impact that the development, if consented, would have on GCN populations in this particular case, as follows:

*Natural England believes **based on the information provided**, that due to the distribution of the newt metapopulations and suitable aquatic and terrestrial habitats in the wider area, in particular the proximity of the nearest newt ponds, that the development is unlikely to adversely affect the*

conservation status of the local newt population. This, of course, will be dependent on the detail of the development and its impacts, but with suitable mitigation and planning this could well be managed so potential impacts are not detrimental to the population at a favourable conservation status.

4.11 Natural England offered MWM the opportunity to discuss mitigation proposals that could be implemented in order to avoid harm to the GCN that may be present at the site. The outcome of these discussions is set out in Section 5.0.

Movement of GCN onto the site

4.12 The extensive surveys undertaken at the site including: the reptile surveys in 2010; the 2011 GCN pond surveys; habitat surveys of the areas surrounding the site; and the results of the reptile translocation works, indicate that the site supports a very small 'population' of GCN. On the basis that previous work has indicated poor connectivity to the site from distant GCN populations this raises the question of 'Where did these three GCN come from?'

4.13 Potential explanations as to the presence of GCN on the site include:

- ***That the site forms a part of the terrestrial habitat of the local GCN populations.*** This remains unlikely given all the evidence from the reptile survey work in 2010 and 2011, the distance to the nearest ponds and the poor habitat connectivity between the known GCN breeding ponds and the site. In addition only three GCN have been found during the extensive reptile translocation exercise.
- ***GCN have reached the site from the south through the surface water drains.*** A surface water ditch flows through the site from the north to south. The ditch then enters a series of culverts and open water channels to the south of the site. High flow rates (running north to south) were reported during each of the GCN pond survey visits and as discussed below it has been established that significant dewatering activities associated with the adjacent quarry site have been ongoing since January 2011. On this basis it seems unlikely that GCN would have accessed the site from the south as this would require the GCN to

travel against the direction of flow along significant lengths of underground culverts in order to access the site.

- ***GCN have been transported to the site from the north via surface water drains.*** Given the aforementioned dewatering activities, this is considered the most likely route by which GCN could have been transported to the site and is discussed further below.

Transport of GCN to the site from the north via surface water drains

4.14 As described above the land to the north of the site comprises a landfill and an active clay pit quarry site. Both of these operations require the management of ground and surface water resources including the pumping and discharge of water into surrounding watercourses and drainage ditches.

4.15 It is known that surface water discharged from these sites flows though pipes and ditches located on the proposed development site. It has been established that due to operational requirements a large quantity of water was stored in a temporary lagoon during 2010 to the north of the proposed development site. The location of the lagoon is marked as Pond 8 on Figure 1 and the lagoon is shown on Plate 8 of Appendix B. It can be seen from the image the significant capacity of the lagoon. The non-vegetated area above the water line provides an indication of the water levels prior to the commencement of the pumping from this lagoon.

4.16 Biffa began to discharge water from this lagoon in January 2011 with the full agreement and knowledge of the Environment Agency. Flows from this dewatering exercise were discharged into the pipes and ditches that run across the proposed development site. The dewatering activities are understood to have lasted a number of months and a significant volume of water was pumped from the temporary lagoon.

4.17 The development site was noted as being largely dry during surveys undertaken in 2009 and the reptile surveys in 2010. Low volume flows were noted within the base of the drainage ditches on the site during this period. During surveys undertaken in April 2011, in the middle of a dry weather spell, the site was noted as being waterlogged. Whilst no clear explanation for this has been established the most likely reason is that high surface water flows into the pipes and ditches at the site as a result of dewatering

activities on land to the north resulted in isolated occurrences of water overtopping the banks of the drainage ditches within the site.

4.18 Whilst the results of the GCN pond surveys indicate that Pond 8 is unlikely to contain GCN it is known that populations of GCN are present in the habitats to the north and east of the quarry site. As such it is possible that GCN could have entered the drainage ditches to the north and have been transported downstream, being deposited onto the site during the periods when there was high levels of water flow within the open water ditches on the site. On the basis of the evidence collated to date this seems the most likely scenario to explain the presence of the three GCN identified at the site.

5.0 GREAT CRESTED NEWT MITIGATION PROPOSALS

5.1 MWM's ecologists have extensive experience in designing and implementing GCN mitigation schemes and have obtained a number of European Protected Species Licences for large infrastructure schemes. Notwithstanding this a telephone conference was held with Natural England on the 4th October 2011 to discuss the specific mitigation requirements that may be required at the site in order to ensure that no GCN are harmed by the development. Minutes of this telephone conference are included in Appendix E.

5.2 On the basis of the evidence presented in this report it is considered likely that a small number of GCN are accessing the development plot via surface water ditches found at the site. There are GCN ponds to the north–east (Ponds 9a and 9b), the north–west (Pond 2) and south of the development plot (pond 11). The evidence outlined earlier in this report suggests that the site does not provide significant terrestrial habitat resource for the meta-population that is known to be present in the local area. However, having identified GCN at the site it can be concluded that the development would form a risk to a small number of individuals and as such a Natural England European Protected Species Mitigation Licence would be required prior to commencement of construction at the site should planning permission be granted.

5.3 The following paragraphs describe the proposed mitigation strategy for the development. On the basis of the evidence presented in earlier sections of the report it is considered that the site supports a low number of GCN, as such the mitigation strategy has been designed in line with Natural England guidelines for a small terrestrial GCN population. The strategy would ensure that if planning permission is granted the construction works would not result in harm to GCN and that the proposed development would not be detrimental to the maintenance of the GCN population at a favourable conservation status. In order to undertake the mitigation strategy a Natural England European Protected Species Mitigation Licence application would be submitted immediately following planning consent.

5.4 Key principles of the mitigation strategy are:

- measures to remove GCN from the development footprint through a process of fencing, trapping and translocation;
- measures to clear the existing ditches within the site of any GCN to enable the realignment of the watercourse;
- mitigation and habitat enhancement measures. These would include habitat management / landscaping to improve the quality of the available terrestrial habitat in the mitigation area, the introduction of artificial refugia and the provision of potential GCN breeding ponds as a result of the construction of surface water attenuation lagoons at the site. These features would be constructed within the development site and would be opened up post-construction; and
- a monitoring programme to assess impact on the local meta-population.

5.5 The programme for the proposed activities is included in Appendix F. It should be noted that the illustrated timescales are indicative only and are dependent on the date when planning permission is granted. Details of the mitigation proposals are described further below.

Site Assessment

5.6 There are no ponds located within the proposed development site. A small surface water drainage ditch flows across the site. The ditch enters the site

in the north-east corner and flows towards the southern boundary where it passes beneath Oak Drive in a culvert. There are two other short ditches that flow from the western boundary of the site into the ditch described above. These are understood to act as overflow ditches from local drainage systems and site observations indicate that these ditches are usually dry. All on-site ditches are shown in Figure 2.

5.7 The site population assessment is based on the evidence of the GCN distribution in the area, site connectivity, the distance away from breeding ponds and the evidence of two years worth of refugia trapping. From this data it is concluded that there is likely to be only a small population of GCN using this site.

Site Protection

5.8 The parts of the site that would be impacted by the development must be cleared of GCN. The GCN exclusion exercise would involve ring fencing the plot using standard 90^{o} amphibian fencing. Erection of the fencing would be under the supervision of an appropriately licensed amphibian worker. The area covered by the ring fencing is shown in the mitigation drawing, Figure 2. It should be noted that exclusion fencing associated with the currently ongoing reptile exclusion exercise has already been erected around the perimeter of the site. Whilst it is considered that the fencing would be suitable for the GCN exclusion exercise the adequacy of the fencing would be reviewed prior to a licence application. The current fencing arrangement does not prevent GCN from accessing the site along the ditch corridors.

5.9 Drift fencing would also be used to increase the efficacy of the trapping. A combination of pitfall traps and carpet tiles would be used along the fencing at a density of 50 per hectare to trap GCN, thus about 150 traps would be used. The traps would be checked twice a day and any GCN caught would be released onto the northern or eastern boundary of the site. This activity would take place at a time when newts are active and out of hibernation (March-October inclusive). At the end of the construction period the boundary amphibian fencing would be removed.

Clearance of ditches

5.10 The probable newt transit route into and out of the site is via the wet ditches that cross the site as discussed in Section 4.0. As part of the development proposals the onsite ditches would be diverted into a newly created ditch that would be constructed along the northern, eastern and southern site boundary of the site (Figure 2). In order to clear the existing ditches a phased approach would be adopted as follows.

1) The on-site ditches would be fenced and isolated from the remainder of the development site (1st phase newt fencing as illustrated on Figure 2). Fencing would be placed within the ditches but high enough on the bank to not obstruct water flow. Artificial refugia and pitfall traps would be placed into the now isolated ditch corridor to allow GCN to be trapped out at the same time as the main site. However, it is recognised that GCN could still move into the isolated ditch corridors from adjacent offsite habitats.

2) Once the main site has been cleared, the proposed perimeter ditch would be constructed inside the boundary amphibian fencing (Figure 2). Once the new perimeter ditch has been constructed temporary exclusion fencing (2nd phase newt fencing) would be placed on the development side of the new ditch.

3) The first phase fencing adjacent to the new ditch would then be removed.

4) The flow within the existing on-site ditches would then be diverted into the new channel. Given the minor nature of the onsite ditches they are likely to drain within days of the water being diverted.

5) The old, now dry ditches, would then be cleared further by destructive hand searching. Newts (or other animals) would be placed outside the fencing on the northern or eastern boundaries of the site. It should not be necessary to bottle trap the ditches as they do not appear to 'pool' and water should drain out of the existing system relatively quickly. Netting may be used within silty sections.

6) GCN would now be excluded from the main development area and ground disturbance works could commence.

Works Access

5.11 Prior to the clearance of GCN, access to the site (and access the sewerage treatment works to the north east of the site) would be via the existing track that leads from Oak drive to the sewage works. All site access would take place inside the newt fencing. Two newt grids at the access points would be provided to direct newts that may get onto the access road back inside the fencing. The newt grids would be of sufficient depth to prevent any newts falling within the grids from escaping.

Habitat mitigation/enhancement

5.12 Surface water attenuation lagoons are proposed as part of the development (Figure 3). The introduction of the ponds and associated landscaping (mosaic of grassland, scrub and hedgerows) would improve the habitat quality for GCN at the site. As no ponds are being lost as part of the development proposals, the ponds would be considered as compensatory measures. Mitigation for the loss of on-site terrestrial habitat it is proposed in the form of ecological landscape planting and provision of five log piles in the north-eastern corner of the site where GCN are considered most likely to enter the site. The landscaping scheme includes, in the east of the site, the creation of a plant community dominated by wetland species such as meadowsweet or great willow-herb providing excellent foraging habitat for GCN. Other landscaping features include tussocky grassland, conservation grassland and new woodland planting which would all provide good quality terrestrial habitats for GCN. These measures are considered appropriate mitigation for the small number of newts that may be present at the site.

Monitoring

5.13 For small and medium populations (on the development footprint) the Great Crested Newt Mitigation Guidelines (Whitehouse 2001) would suggest that presence absence surveys are undertaken for a period of two years at ponds in the vicinity of the development site. The surveys would focus on populations in the nearest GCN ponds i.e. Pond 9 (a&b) and Pond 11. In addition, the newly created surface water attenuation lagoons would be monitored for presence/absence of GCN. Records would be sent to the local data centre post monitoring.

6.0 APPRAISAL OF RISKS TO GREAT CRESTED NEWTS

6.1 A significant amount of survey based evidence has been collected in relation to GCN. The ecological assessment undertaken as part of the planning application concluded that there was unlikely to be a significant impact on local GCN populations as a result of the development. This issue was examined further during the determination period and a clarification was issued to Natural England which resulted in their removal of a holding objection to the scheme.

6.2 Following submission of the planning application additional GCN surveys have been undertaken at ponds within 500m of the site. Whilst the surveys have identified GCN in ponds within 500m of the site (the closest being 285m to the south) the findings of these surveys did not alter the previous conclusions regarding the status of the development site i.e. the site does not support a population of GCN.

6.3 Nevertheless, during the reptile translocation exercise at the site three individual GCN have been identified. This included a period of 99 trapping days where no GCN were identified.

6.4 Section 4.0 above explores possible routes by which GCN could have accessed the site. The most likely explanation appears to be that the GCN were transported to the site via the drainage ditch that flows from land to the north, an area known to support a population of GCN. The likelihood that this explains their presence is reinforced by the unique flow conditions experienced this winter / spring when very high volumes of water were discharged from the quarry site resulting in flooding at the proposed development site.

6.5 Despite the very small numbers of GCN discovered at the site it has been agreed with Natural England that a European Protected Species Mitigation Licence would be required to capture and move GCN that may be present at the site should the proposed development be granted permission.

6.6 Section 5.0 proposes a mitigation scheme that would involve the exclusion and trapping of GCN from the site. The mitigation scheme includes specific

measures to translocate GCN from the ditch that flows through the site prior to it being diverted around the site perimeter.

6.7 The mitigation scheme includes the provision of refugia within the landscaped areas of the site. In addition, whilst not directly a form of mitigation, the provision of surface water attenuation lagoons would provide a potential habitat for GCN following completion of the development should planning permission be granted.

6.8 On the basis of the evidence collected over the past two years it is considered that the site supports a very small population of GCN. It is considered that through the implementation of the proposed programme of trapping and exclusion and implementation of the habitat mitigation measures that the development would not result in harm to GCN that may be present at the site.

7.0 IMPERITIVE REASONS OF OVERRIDING PUBLIC INTEREST (IROPI)

7.1 As outlined in Section 1.0 there are three statutory tests that must be met before Natural England can grant a derogation licence for the GCN mitigation proposals (in the event that planning permission is granted). With regard to the derogation tests, the Secretary of State (in his role as a competent authority) should consider the likelihood of Natural England granting a licence and only refuse planning permission where he concludes that Natural England is unlikely to grant.

7.2 The first statutory test requires the relevant authority to be satisfied that the proposal is for the purposes of *"preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment"*. With regard to the Mercia EnviRecover facility, the development is specifically designed as a sustainable waste management facility and renewable energy generator. Thus, the latter of the two requirements is relevant in this case i.e. for imperative reasons of overriding public interest (IROPI).

7.3 In order to assist in the application of the three statutory tests, Natural England has produced a guidance note [1]. Paragraphs 22 and 23 of this note provide specific guidance in respect of IROPI and state:

22. When considering 'imperative reasons of overriding public interest, including those of a social and economic nature' Natural England will take into account whether the activities/ developments are required to meet or provide a contribution to meeting a specific need such as:

- *the requirement to maintain the nation's health, safety, education, environment (sustainable development, green energy, green transport);*
- *complying with planning policies and guidance at a national, regional and local level;*
- *requirements for economic or social development (Nationally Significant Infrastructure Projects, employment, regeneration, mineral extraction, housing, pipelines, .etc.).*

23. *In other words the development proposal must contribute to meeting an imperative public interest, and that interest must be sufficient to override the protection of, and any potential impact on, the EPS [European Protected Species] concerned.*

7.4 The guidance goes to provide examples of instances where the IROPI has been demonstrated which are informative. These include:

- Meeting a financial need for local for affordable housing, through the development of 5 dwellings, three of which would be classed affordable. Beneficial weight was also attributed to the economic advantages of employing local tradesmen and the environmental benefits of the dwellings conforming to contemporary energy efficiency standards. The proposal also satisfactorily mitigated any potential effects on nearby GCNs.
- The conversion of a barn to holiday let accommodation in order to generate income for the farm and supplement the local 'green' and 'sustainable' tourist economy. Further benefits were deemed include employing local tradesmen and the environmental benefits of the

[1] Natural England Guidance Note: European Protected Species and the Planning Process - Natural England's Application of the 'Three Tests' to Licence Applications 2010

dwellings conforming to contemporary energy efficiency standards. The proposal also satisfactorily mitigated any potential effects on bats roosting in the barn structure.

7.5 The documents submitted in support of the Mercia EnviRecover planning application (most notably the Planning Statement contained in the Planning Application Document Part 3) demonstrate that the proposal would make a very significant contribution to meeting a specific need for:

- Sustainable waste management infrastructure;
- New renewable (green) energy generation capacity within the county and the wider region as a whole;
- New infrastructure that would directly assist in combating climate change.

7.6 For the purposes of the Pubic Inquiry (for which this Regulation 19 'Other Information' has been produced), the Secretary of State (i.e. the competent authority in the determination of the planning application) will have all of the information supporting the very significant need for the development before him. As such, only the key points are summarised below in order to aid consultation and understanding as to how the IROPI test is passed.

7.7 ***Sustainable waste management infrastructure*** **–** At present Worcestershire and Herefordshire has no infrastructure for residual waste management and relies on landfill disposal and export of its waste (see Planning Statement Chapter 2.0). Failure to deliver the plant will result in the present unsustainable waste management practices continuing, which includes the landfilling of up to circa 200,000 tonnes per annum (tpa) of residual municipal waste and some limited export of municipal waste to distant out of county EfW plants.

7.8 ***New renewable (green) energy generation capacity*** **–** At present the county and region are demonstrably failing to provide such capacity in line with national renewable energy targets (see Planning Statement Chapter 2.0). MWM's latest calculations show the region currently generates circa 3.65% of its consumed electricity from renewables. At a county level the situation is worse, with renewable electricity generation of circa 2.85% of its

consumption. Both these figures should be viewed in the context of a current national target of over 10%. The EnviRecover facility would, on its own, make a very material contribution towards increasing the regional renewable electricity generation (up to a 7% increase) and a massive contribution at the county level (an increase of up to 82.5%).

7.9 ***New infrastructure to directly assist in combating climate change -*** Through the diversion of the aforementioned 200,000 tpa from landfill (with avoidance of the associated releases of methane, a greenhouse gas 24 times more concentrated than carbon dioxide) and the generation of circa 64,000 MW hours per annum of renewable energy (see Planning Statement Chapter 2.0) the development would deliver significant climate change benefits.

7.10 In addition, the proposal has significant economic benefits (refer to the Green Belt Synopsis Report submitted in support of the application) which include the following:

- The location of the facility within the triangle formed by Redditch-Kidderminster-Worcester ensuring it is close to the main population centres and hence waste arisings, thereby offering transport cost efficiencies.
- That, in its proposed location, it does not require any new supporting waste management infrastructure (e.g. waste transfer stations), therefore saving on further capital expenditure.
- Although it is a strategic facility there is no requirement for upgrading highways infrastructure, noting that the local highway authority's planning application consultation response which stated: *We do not foresee any physical mitigating works as being needed to the immediate surrounding highway network to facilitate this development.*
- Being very well located for connection to the electricity grid, there would be a saving of potentially onerous infrastructure development costs commonly associated with development of this nature.
- Being sited on an established industrial employment there is substantial opportunity for the heat from EnviRecover to be directed to co-located industrial and business end-users. This would avoid the onerous cost of long distance heat energy transmission. Furthermore, units on the

Hartlebury Trading Estate are serviced by private estate roads which would make it far less complex and more cost effective to install heat distribution infrastructure, as compared to an estate served wholly by an adopted highway network.

- The added-value potential of this renewable energy opportunity makes the Hartlebury Trading Estate an attractive prospect for companies to move to central Worcestershire / Wychavon stimulating inward investment, particularly in the 'green' economy sector. The benefits of co-location with an embedded, local, economic and secure energy supply should not be underestimated in the context of the UK's future predicted energy position.
- Worcestershire and Herefordshire Council's have pursued a residual municipal waste recovery facility for almost 15 years. To date they have failed to deliver any such development. Further delays in procuring an in-county solution will inevitably result in increases in capital costs of providing the necessary sustainable waste management infrastructure.
- The facility would generate and sell electricity to the grid. It is estimated that this would equate to approximately 106,000 MW hours per annum. This would have a value of circa £5,000,000 per annum.
- The proposal would result in full time employment for circa 30 people across a wide skills range. In addition, there would be short-term employment for up to 300 workers during construction; plus additional secondary economic benefits for the local economy such as accommodation and support services during the construction phase.
- There would be a secondary positive impact on the local economy through the provision of local support services and consumables during the operational life of the plant.
- There would be economic value in reclaimed metals from incinerator bottom ash.

7.11 In light of the above (reinforced by other information in the planning application and Public Inquiry documents), the proposal would demonstrably assist in delivering national, regional and local planning policy, strategy and guidance, including the relevant parts of the following documents (noting that this list may not be exhaustive):

Sustainable Waste Management Policy

- Waste Strategy England 2007 (May 2007);
- Government Review of Waste Policy in England 2011 (June 2011);
- The Waste (England and Wales) Regulations 2011(Statutory Instrument 2011 No. 988) (March 2011);
- Planning Policy Statement 10 (PPS10): Planning for Sustainable Waste Management (March 2011);
- Regional Spatial Strategy (RSS) for the West Midlands including Phase 1 Revisions (January 2008);
- The Worcestershire County Structure Plan 1996-2011 - Saved Policies (June 2001);
- The emerging Regional Spatial Strategy for the West Midlands Phase 2 Revision (including the recommendations of the Panel Report);
- The emerging Worcestershire Waste Core Strategy - Publication Document under Regulation 27 (March 2011);
- Review of the Joint Municipal Waste Management Strategy for Herefordshire and Worcestershire 2004 -2034 (November 2009).

Climate Change, Energy and Renewable Energy Policy

- Energy White Paper 'Meeting the Energy Challenge' (May 2007);
- UK Renewable Energy Strategy (July 2009);
- The UK Biomass Strategy (May 2007);
- PPS1 Supplement: Planning and Climate Change (December 2007);
- Planning Policy Statement 22 (PPS22): Renewable Energy (August 2004);
- Overarching National Policy Statement for Energy EN-1 (July 2011);
- National Policy Statement for Renewable Energy Infrastructure EN-3 (July 2011);
- The UK Low Carbon Transition Plan (July 2009);
- The UK Renewable Energy Road Map (July 2011);
- The Annual Energy Statement and other Ministerial Statements including the Written Ministerial Statement: Planning for Growth (23rd March 2011);
- DCLG Statement of 15th June 2011 setting out the presumption in favour of sustainable development;

- The draft National Planning Policy Framework Consultation Document 2011 (July 2011);
- Draft Planning Policy Statement: Planning for a Low Carbon Future in a Changing Climate (March 2010);
- Regional Spatial Strategy (RSS) for the West Midlands including Phase 1 Revisions (January 2008);
- The emerging Regional Spatial Strategy for the West Midlands Phase 2 Revision (including the recommendations of the Panel Report);
- The West Midlands Energy Strategy (2004);
- West Midlands Climate Change Action Plan (December 2007);
- Renewable Energy Capacity Study for the West Midlands (March 2011);
- The Worcestershire Climate Change Strategy Review 2009.

Economic Development Policy

- Planning Policy Statement 4: Planning for Sustainable Economic Growth (December 2009);
- The Ministerial Statement: Planning for Growth (March 2011);
- The draft National Planning Policy Framework Consultation Document 2011 (July 2011).

7.12 In conclusion, based on the foregoing, in MWM's view it is demonstrably the case that development of the EnviRecover facility, with its associated significant sustainability, energy and economic benefits, is imperative for reasons of overriding public interest.

8.0 NO SATISFACTORY ALTERNATIVES

Introduction

8.1 The second statutory test requires the relevant authority to be satisfied *"that there is no satisfactory alternative"*. The Natural England guidance provides advice on this test as follows (paragraphs 26 and 27):

26. It should be recognised that there are always going to be alternatives to a proposal and, in terms of licensing decisions, it is for Natural England to determine that a reasonable level of effort has been expended in the search

for alternative means of achieving the development whilst minimising the impact on the EPS. In other words, Natural England expects the applicant to demonstrate that alternatives have been considered, explain what those alternatives were, and provide a justification for their decisions to select their preferred option and discount the others as satisfactory. As part of the process we always require the applicant to have considered the 'do nothing' scenario.

27. A proportionate approach is adopted in considering the feasibility of alternative solutions relative to the degree of likely impact. The greater the impact of the proposal on the species, the more evidence Natural England would expect to see from the applicant in order to be able to satisfy itself that there is no satisfactory alternative to the one being proposed.

8.2 In this case, based upon the information provided within this document and the evidence gathered over the past two years which indicates that the site is likely to only support a very small number of GCN, the potential harm to an EPS (i.e. GCN) is considered to be very limited. In this regard Natural England's email of 23rd September 2011 (see Appendix D) should be noted. This includes the judgement (extract) that ...."*the development is unlikely to adversely affect the conservation status of the local newt population*". Thus a proportionate approach should be adopted to considering the feasibility of alternative solutions.

8.3 Notwithstanding the above, the originally submitted Environmental Statement (ES) and associated planning documents deal extensively with alternatives. They conclude:

- The County Council's (and waste management contractors) have failed to deliver any alternative residual municipal waste management scheme within the counties since commencement of their long term waste contract in 1998 (refer to ES sub-section 3.2 and sub-section 2.4 of the Planning Statement).
- That with regard to alternative waste management solutions to meet the two Council's needs, a detailed Residual Waste Treatment Options Appraisal (undertaken on behalf of Worcestershire County Council) concluded that a single EfW plant with combined heat and power (CHP)

was the best performing solution. This conclusion was based upon assessment of a range of different options against environmental criteria (using the Environment Agency's life cycle assessment tool WRATE), financial and risk criteria and social criteria. This conclusion was further confirmed by way of a mirror, site specific, appraisal undertaken by MWM. This found a single EfW with CHP and a single EfW with electricity export only were the top two scoring options (refer to ES sub-section 3.2).

- Probably of greatest relevance, with regard to alternative sites MWM undertook what is probably the most comprehensive Site Search Exercise (SSE) ever carried out within the two counties. The SSE was undertaken in five distinct stages and considered circa 60 locations (a number of which contained more then one potential site). It clearly established that the land at Hartlebury Trading Estate (i.e. the application site) represented the **only** suitable and available site for the development of the proposed EfW facility (refer to ES sub-section 3.2 and sub-section 4.4 of the Planning Statement, noting that the full SSE report is provided in Appendix 4.1 to the Planning Statement).

8.4 With regard to the 'do nothing' scenario, the very significant sustainability, renewable energy, climate change and economic benefits of the scheme (identified in Section 7.0 above) would not be realised. Failure to deliver the plant will result in the present unsustainable waste management practices continuing, which includes the landfilling of up to circa 200,000 tonnes per annum (tpa) of residual municipal waste (with the associated releases of methane, a greenhouse gas 24 times more concentrated than carbon dioxide) and some limited export of municipal waste to distant out of county EfW plants.

8.5 In addition, the opportunity to increase regional and County level renewable electricity generation (by circa 7% and 82.5% respectively), would be lost, in a context of both the region and County failing, by a very significant margin, to achieve their share of the national target.

8.6 The economic benefits including permanent, temporary and secondary job creation would also not accrue.

8.7 The continued reliance on landfill and failure to recover value from residual waste in delivering energy (including renewable energy) generation capacity (with the associated climate change benefits) would be contrary to the key relevant policy objectives at national, regional and local level.

8.8 In light of the above, MWM (and indeed the County Councils) has undoubtedly explored alternatives in a comprehensive manner both in terms of solutions and sites. It has demonstrated that no satisfactory alternatives exist and the do-nothing scenario is not acceptable in environmental and economic terms (and failure to meet associated national, regional and local policy requirements).

9.0 MAINTAINING FAVOURABLE CONSERVATION STATUS

9.1 The third statutory test requires the relevant authority to be satisfied "*The action will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range (Regulation 44(3)(b))*" The Natural England guidance[2] provides advice on this test as follows:

31. The general principles set out in Natural England's mitigation guidelines for bats and Great Crested Newts are applied to all licence applications. Our assessment is based on information provided within the method statement that must be submitted with the licence application.

9.2 The Great Crested Newt Mitigation Guidelines (Whitehurst 2001) has been used in all stages of the assessment to date. The survey methods, site assessment, impact of the development, method statement and mitigation and enhancement proposals have all been formulated based on the principles and detailed recommendations in the guidelines. As such it can be concluded that the proposed development works at the site would allow for the maintenance of favourable conservation status of Great Crested Newt on and around this site.

[2] Natural England Guidance Note: European Protected Species and the Planning Process - Natural England's Application of the 'Three Tests' to Licence Applications 2010

10.0 CONCLUSIONS

10.1 This document is a supplement to the original ES. It has been produced to provide a summary of the work undertaken prior to and following submission of the planning application with respect to GCN and to provide an update on the status of GCN at the site. It has been submitted under Regulation 19 of The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended) as *"Further information and evidence respecting environmental statements"*. In this instance the information contained within this report is provided voluntarily by the Applicant as *Other Information* specifically for the purposes of an Inquiry held under the Town and Country Planning Act 1990.

10.2 The original Environmental Statement concluded there would not be any impacts on GCN as a result of the proposed development. These conclusions were further reinforced by reptile survey work undertaken at the site during 2010 which did not identify GCN at the site.

10.3 However, during the course of the reptile exclusion exercise conducted at the site during 2011 three individual GCN were identified. The reptile trapping exercise included in excess of 100 trapping days using over 400 refugia across the site. As such it is considered that the population of GCN at the site is very small.

10.4 In spring 2011 GCN pond surveys were conducted by MWM at ponds within 500m of the site. These surveys confirmed that four ponds within 500m of the site were used by GCN. The closest GCN ponds to the site with potential terrestrial access to the development area are located over 300 m to the north east. However, habitat connectivity to the site from these ponds is poor and there is adequate suitable terrestrial habitat on land adjacent to the ponds.

10.5 The report concludes that the most likely scenario to explain the presence of GCN at the site is that they have entered drainage ditches to the north of the site (an area known to supports GCN population) and have been transported downstream, being deposited onto the site during the periods

when there was high levels of water flow within the open water ditches on the site.

10.6 Extensive consultation has been undertaken with Natural England. It has been agreed that a European Protected Species Licence would be required to move GCN from the site should planning permission be granted.

10.7 Three statutory tests must be met before Natural England can grant a derogation licence for the GCN mitigation proposals (in the event that planning permission is granted). With regard to the derogation tests, the Secretary of State (in his role as a competent authority) should consider the likelihood of Natural England granting a licence and only refuse planning permission where he concludes that Natural England is unlikely to grant a licence (as established by the Supreme Court in *Morge* - [2011] UKSC 2). The three tests are, that a licence can be granted:

- for the purposes of "*preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*".
- where the appropriate authority is satisfied "*that there is no satisfactory alternative*".
- where the appropriate authority is satisfied "*that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*"

10.8 With regard to *imperative reasons of overriding public interest* it is MWM's view that the development of the EnviRecover facility, with its associated significant sustainability, energy and economic benefits, provides imperative reasons of overriding public interest.

10.9 With regard to *no satisfactory alternative* MWM (and indeed the County Councils) has undoubtedly explored alternatives in a comprehensive manner both in terms of solutions and sites. It has demonstrated that no satisfactory alternatives exist and the do nothing scenario is not acceptable.

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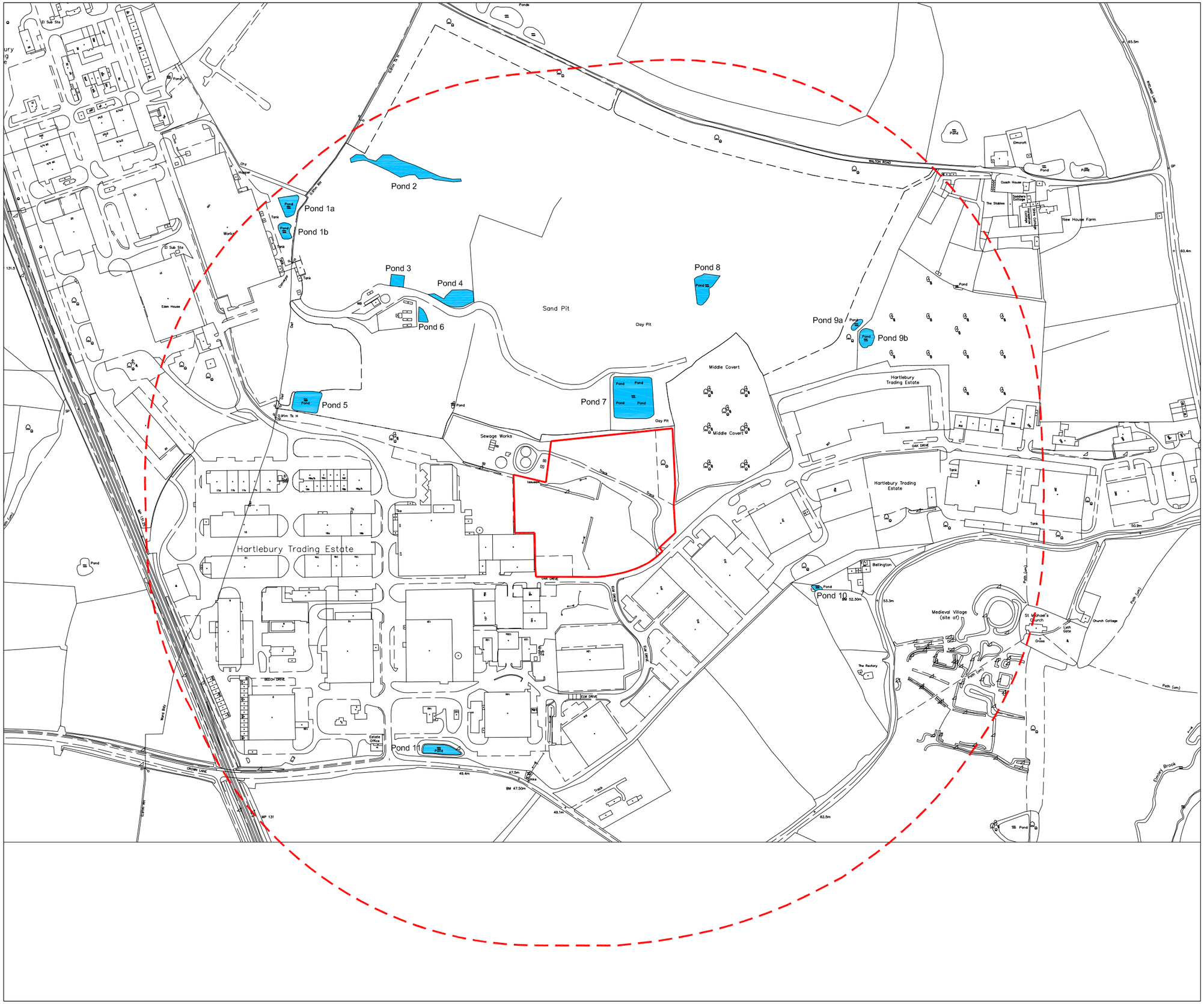
10.10 With regard to the *maintenance of favourable conservation status* the report describes a mitigation scheme that includes a programme of trapping and exclusion and provision of habitat mitigation and compensation measures. It is considered that through the implementation of these measures the development would not result in harm to GCN that may be present at the site. As such, and on the basis that the survey evidence suggests a small population of GCN, it is considered that the proposed development would not be detrimental to the maintenance of the GCN population at a favourable conservation status.

10.11 On the evidence presented in this report it is considered that three aforementioned statutory tests would be met and as such it is likely that a European Protected Species Mitigation Licence would be granted in respect of the GCN identified at the site.

FIGURES



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axis

Studio **E** Architects

Key:

- Planning Application Boundary
- 500m Buffer
- GCN Ponds

mercia waste management

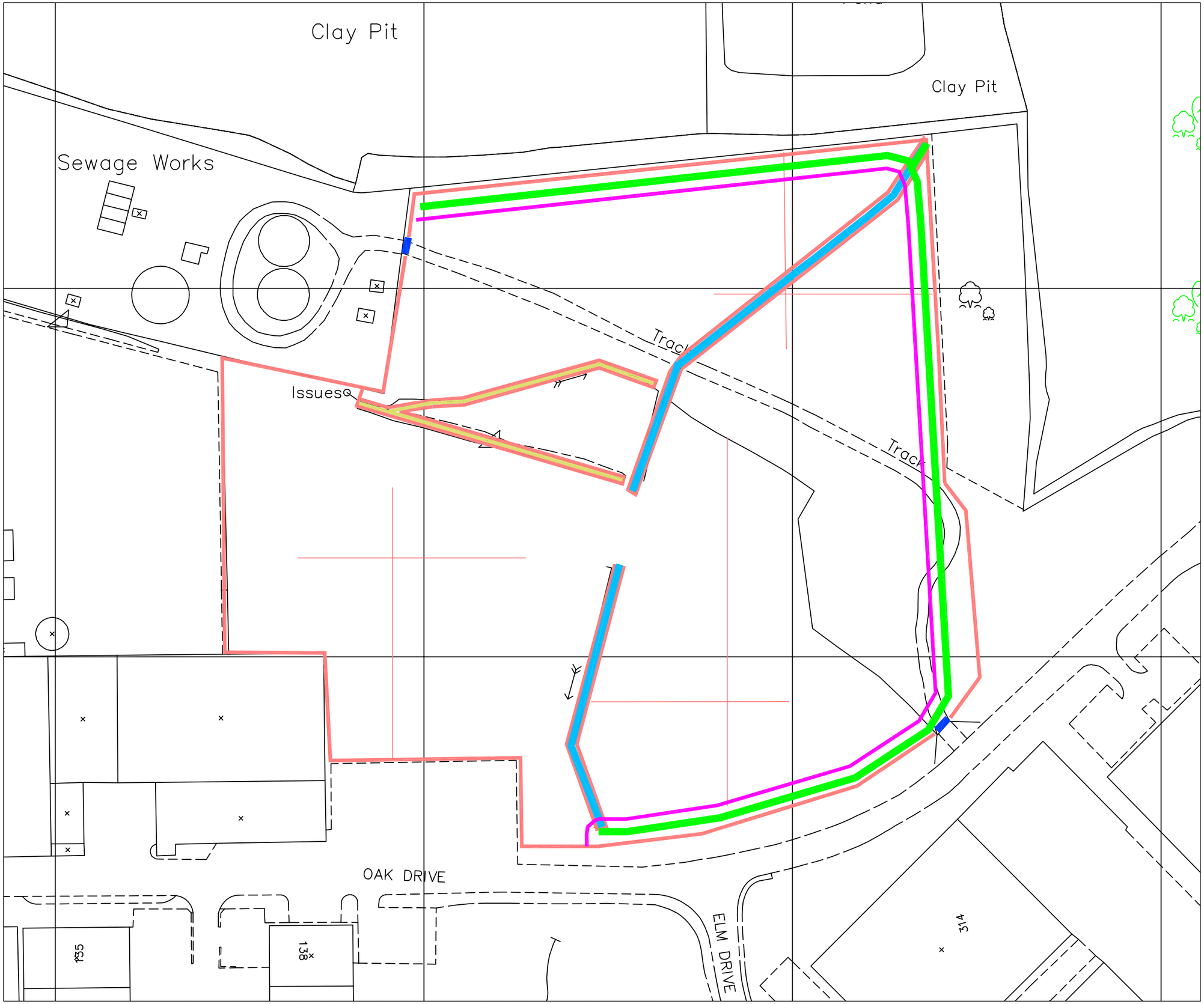
MERCIA ENVIRECOVER

PROPOSED DEVELOPMENT OF A RENEWABLE ENERGY FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

Figure 1

Great Crested Newt Pond Locations

Scale	Date
1:5000@A3	July 2011



axis

Studio E Architects

- 1st Phase Newt fencing
- Drift fencing
- Newt grid
- Dry ditch
- Wet ditch
- Proposed new ditch
- 2nd Phase Newt fencing

mercia waste management

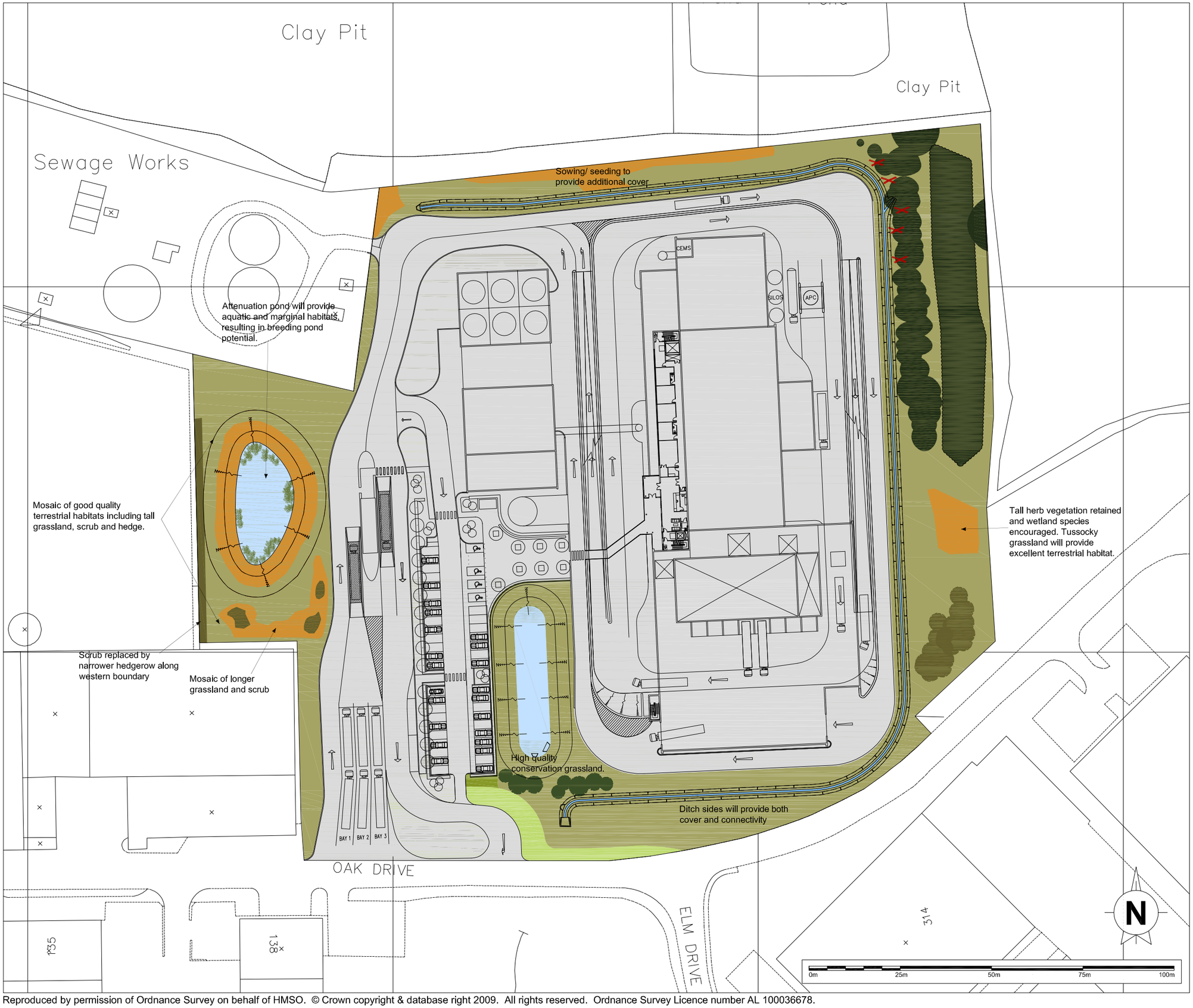
MERCIA ENVIRECOVER

PROPOSED DEVELOPMENT OF A RENEWABLE ENERGY FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

Figure 2

Great Crested Newt Fencing Plan

Scale	Date
1:1000@A3	October 2011



axis

Studio E Architects

Key:

- Retained Existing Vegetation
- New Native Scrub
- Close Mown Grass
- Conservation Grassland
- Tussocky Grassland/ Tall Herbs
- Attenuation Ponds
- Emergent Planting within Ponds
- Diverted Watercourse
- Log Piles

NOTES:

1. Landscape proposals shown are indicative only.

2. All landscape works shall be subject to active management for a perlod of five years in order to ensure succesful establishment. Failed planting to be replaced in the next available growing season.

3. Species-rich grassland areas to be subject to a cutting regime intended to create a sward of varied height, so as to maximise biodiversity benefits.

4. Scrub area along the northern boundary to include retention of existing vegetation where practical.

5. Marginal planting to be cut on rotation (e.g. one-third cut every three years) following establishment period.

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MERCIA ENVIRECOVER

PROPOSED DEVELOPMENT OF A RENEWABLE ENERGY FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

Figure 3

Great Crested Newt Landscape Mitigation Proposals

Scale	Date
1:1000@A3	October 2011

Appendix A

Protected Species Clarification Note

argus ecology

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Note of Clarification regarding the risk of impact on European protected species by the EFW development at Hartlebury.

Bats

Bat surveys in 2010 identified a probable noctule bat roost (*Nyctalus noctula*) in Middle Covert close to the proposed development site. Questions had been raised as to the possibility of shadow-cast by the EFW plant impacting upon the roost through changes to the microclimate within the woodland. It was suggested that it would be necessary to identify individual structures within the woodland that may form bat roosts and if possible, identify the roost itself. This would enable an assessment of the impact of shadowcast on the roost site.

Two licensed surveyors visited the site on the 28th September 2010 and at dawn on 29th Sepember 2010. On the afternoon of the 28th in dry and mild conditions Middle Covert was surveyed with a view to assessing, on a tree by tree basis, the number of structures that could form bat roosts. The woodland is dominated by mature oak and ash trees with a mixed woodland under-storey. The wood was sectioned and an assessment was made of the number of trees that should be regarded as medium or high risk structures in terms of their potential use as bat roosts. Such trees may include such features as woodpecker holes, split trunks or branches, rot holes or even mature ivy covered trees that are difficult to assess from ground level. The woodland is very mature with a great deal of standing deadwood and in total we assessed 110 oak trees and 142 ash trees being high or medium risk with the ash trees occupying the central sections of the wood while the oaks form the main boundary features.

An evening emergence survey was carried out but very few bats were seen. The evening was mild (14° c at the start of the survey) and the survey started one hour before dusk finishing one hour after dusk. Surveyors were positioned to the east of the poplar plantation and inside Middle Covert. Using both heterodyne and time expansion detectors a total of three noctules were detected; one to the south of the woodland flying west, one foraging within the woodland, and very briefly one to the north commuting northwards. The dawn survey on the 29th September failed to detect any bats.

The visit in many ways confirmed the original conclusions presented in the Environmental Statement. There is likely to be a noctule roost present within the woodland and it is highly likely that there are multiple roosts with potential breeding, nursery and hibernating roosts all being present. The activity observed as part of this survey effort was typical of September activity where male noctules are forming mating roosts. Movement is unpredictable, not always determined by foraging behaviour and may utilise a number of roost

sites within the woodland. The large number of possible roost sites in all parts of the woodland will allow bats to move around, maintaining a suitable microclimate for each life stage.

A study of the shadow cast by the proposed plant (Figure 1) shows that the shadow from the plant will not significantly impact on the woodland in which the bats roost. The shadow cast by the band of poplars to the west of Middle Covert will produce a far greater shadow as they have done so since reaching maturity. We would not anticipate that the construction of the EFW plant will change the micro-climate.

The development plot does not appear to provide any significant foraging for the roost and we believe that the impact of the development on the bats is likely to be classed as *de minimis*.

Great crested newt (GCN)

Questions have also been raised about the possibility of GCN on site. As identified within the EIA, the nearest known GCN breeding pond is 598m away from the development site (Figure 2). There are no suitable water bodies on the development site and crucially, individuals have not been found anywhere on site in the course of the survey work. There are a number of ponds within 598m of the site. Ponds to the north and west are settling lagoons and are either active or heavily silted, these can be considered low risk with poor water quality and vegetation structure. There is also a pair of ponds to the east, on the eastern edge of the clay pit. These easterly ponds are closer to the known breeding pond and are structurally suitable for amphibians. The larger of the two ponds is heavily shaded and appears to have (at the time of survey) poor water quality. The second has both aquatic and marginal vegetation and although rather silty appears to be more suitable for amphibians. These ponds are 300m - 330m to the east of the proposed development site.

In terms of risk we need to look at the factors that influence presence/absence of GCN and the evidence that exists for this site.

Survey based evidence

Argus carried out a large number of reptile surveys on this site using $1m^2$ sheets of roofing felt. This is a material which has been used successfully to survey both reptiles and amphibians. The use of refuges is an accepted method of surveying amphibians (Langton *et al.*, 2001) though other terrestrial survey methods such as pitfall trapping are also used. The large sheets (often refugia are only $0.25m^2$) make them highly suitable for both reptiles and amphibians and we have found that in the course of licensed site clearance of GCN, they are more effective than pitfall trapping in the collection of individuals particularly in damper parts of the habitat. Checking of these artificial refugia 20 times over a three month period revealed no GCN. The refuge checking was carried out at the optimum time for this activity (Whitehurst, 2010). In addition the

site has large piles of rubble, wood, sheeting and other detritus. These features were also regularly checked for reptiles and amphibians and once again no evidence of GCN were found.

Connectivity

The only suitable breeding ponds are approximately 300m to the east of the development site and there is a relatively narrow but somewhat disturbed corridor to the immediate south of the ponds (Figure 2). From aerial photographs it can be seen that the width of this corridor has been reduced recently from approximately 40m down to about 10m by excavation in the clay pit/ landfill. This excavation appears to have taken place in 2010 and has significantly reduced opportunities for amphibians to reach Middle Covert and the development site from these ponds. All that remains of the corridor is a recently re-profiled ditch (dry at the time of survey) and a very narrow strip of immature woodland which, due to the excavation activity, is now set in disturbed ground.

Of note is the fact that that the majority of GCN in a pond rarely travel greater than 250m away from the pond (Langton *et al*., 2001) though they can travel further. The Great crested newt mitigation guidelines consider >250m as 'distant terrestrial habitat'. In his studies with GCN Kinne (2006) concluded that "The 'home terrestrial habitat' may be defined as an area up to 350 m around the home pond" This places the development site at the very edge of this range but with poor connectivity with the ponds in question.

Terrestrial habitat suitability

There is no doubt that the development site offers good quality terrestrial habitat for amphibians but the evidence of the refugia survey suggests that GCN do not occupy this site. Perhaps crucially the high quality of the habitat to the east and north of the ponds will reduce the pressure for mobility of any amphibian population. There is 8.8 ha. of very good quality habitat (unimproved grassland and scrub) and 1.5 ha of woodland and hedgerow immediately to the east and north of the ponds which would provide ample terrestrial habitat for even a large population, should it exist. Surveys have shown that a large population of newts in a small pond (20m span), such as we have in this case, requires only 1 ha of terrestrial habitat (Kinne 2006).

We would conclude that although the terrestrial habitat on site would be suitable for GCN we believe that the evidence strongly suggests that they are not present. We believe that had they been on site we would have detected them in the refuge search, that connectivity with the most favourable ponds is poor and there is ample, very high quality, habitat in the immediate vicinity of the ponds.

Plates

P1 – High risk trees with standing deadwood

P2 – View looking west towards Middle Covert from the bank of the pond

References

Kinne O. (2006) *Successful re-introduction of the newts Triturus cristatus and T. vulgaris.* Pb. Inter-Research Science Center and International Ecology Institute Nordbünte 21 & 23, 21385 Oldendorf/Luhe, Germany

Langton et al (2001) *Great Crested Newt Conservation Handbook.* Pbl Froglife

Whitehurst J (2010) *Great crested newt mitigation guidelines*. Pbl. English Nature

Figure 1 – Shadow Cast

Mercia EnviRecover

ECOLOGICAL IMPACT ASSESSMENT

KEY

Amphibian records

Distances between features

axis

argus ecology

Unit 14, The Greenhouse,
Greencroft Industrial Park, Co. Durham, DH9 7XN

Fig. 2: Pond positions

Drawn by: PGL Vers. 1.0: 16/02/10

Appendix B

Mercia EnviRecover Great Crested Newt Survey Report (2011)

Mercia EnviRecover EFW Facility

Great Crested Newt Survey Report

Prepared for Axis PED

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July 2011

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CONTENTS

1 BACKGROUND TO THE DEVELOPMENT

1.1 Introduction

Mercia Waste Management (MWM) is proposing to develop an Energy from Waste (EfW) facility on land at Hartlebury Trading Estate, Hartlebury, Worcestershire. A planning application for the EfW facility, referred to as Mercia EnviRecover, was submitted to Worcestershire County Council (WCC) on the 1st May 2010. WCC Planning and Regulatory Committee resolved to approve the planning application on the 1st March 2011. Subsequently the application has been called in by the Secretary of State. A Public Inquiry into the proposed development will commence on the 22nd November 2011.

An ecological assessment of the proposed development was included within the Environmental Statement which accompanied the planning application. The ecological assessment concluded that the development was unlikely to result in significant impacts on great crested newt (GCN) populations in the local area, a species protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2011.

As a result of queries raised during the planning application determination period it was decided that a series of amphibian surveys should be undertaken in order to further the knowledge of the local populations and address any issues that may arise from the results of such investigations. This report details the outcome of the programme of great crested newt (*Triturus cristatus*) surveys at Hartlebury Industrial Estate. In addition it outlines the potential impacts of the proposed Mercia EnviRecover plant on great crested newt (GCN).

1.2 Legislative background

Great crested newts are protected under the Conservation of Habitats and Species Regulations 2010 and Schedule 5 of the Wildlife and Countryside Act 1981. Where there is a risk of a development impacting upon GCN adequate survey work must be carried out and implementation of the development proposals may be subject to obtaining a Natural England development license.

1.3 Habitat description

The site is a vacant development plot located on Hartlebury Trading Estate to the southeast of Hartlebury in Worcestershire. It is centred on grid reference SO 859 698 and is bordered to the south by Oak Drive and industrial units, to the north by an

active landfill site, to the northwest by a sewage works, to the west by industrial units and to the east by broadleaf woodland.

The site has been allowed to colonise with trees, scrub and tall herb vegetation. It contains a few mature oak trees, supports a tall (28m) poplar plantation along its eastern boundary, and has a small, partly culverted ditch running through it. Overall it therefore has quite a high habitat and plant species diversity.

There are 13 ponds within 500m of the development site boundary although land access to one of these ponds (Pond 10, 210m from the site) was not possible as it is located in a private garden, the ponds are shown on Drawing 1. Eight of these ponds were fully surveyed, others were found to be dry and one pond was considered too dangerous to access. Brief physical descriptions of the ponds are given below with approximate areas measured from Ordnance Survey tiles; an indication of quality of terrestrial habitat in the immediate vicinity is also included. Plates showing photographs of the ponds are included in Appendix 1.

Pond 1a and 1b (Area: 1a – 548m^2, 1b – 308m^2)

Adjoining settling ponds for water from brick factory floor, inputs of turbid water though pipes and water levels subject to fluctuation.

Aquatic vegetation included introduced water lilies in pond 1b with a small area of broad leaved pondweed (*Potamogeton natans*) and submerged willowherb rosettes (*Epilobium sp.*) in pond 1a. Very little marginal vegetation, some areas of yellow flag (*Iris pseudacorus*).

Terrestrial habitat moderate – ephemeral short perennial vegetation to the east, hawthorn (*Crategus monogyna*) scrub, and rough neutral grassland to north, willow (*Salix sp.*) and bramble (*Rubus fruticosus agg.*) scrub to the west.

Pond 2 (Area: approx 850m^2)

Part of the water management network of ponds and ditches around the brickworks and clay quarry. A large area is subject to drying but there are deeper areas including a pool at the south west corner which has algae and water crowfoot (*Ranunculus sp.*). The main area of the pond bed was dry with fringing greater reedmace. There is a ditch to the east of the site with 0.5m water along part of length.

Terrestrial habitat moderate – good to the north with bramble scrub and rough grassland, outgrown hawthorn hedge to the west. Poor quality vegetation to the south with a bund supporting sparse ephemeral short perennial vegetation.

NB. The invasive species New Zealand pigmyweed (*Crassula helmsii*) is present at the western end of the pond.

Pond 3 (Area: 260m^2)

Ephemeral pool within brickworks site, no vegetation. The pool was dry after the first survey visit.

No terrestrial habitat – surrounds are sparse ephemeral short perennial vegetation.

Pond 4 (Area: 858m^2)

Shallow (<5cm) and largely dried out with areas of silt, part of water management system of brickworks site. Supports greater reedmace and small areas of soft rush (*Juncus effusus*) but no other aquatic vegetation.

Terrestrial habitat poor – poor neutral grassland and ephemeral short perennial vegetation, wider area is bare ground.

Pond 5 (Area: 985m^2)

Part of water management system on brickworks site. Roughly square pond with abundant greater reedmace and occasional yellow flag iris. The pond joins to a ditch which runs to the east of the pond then north through the brickworks site.

Terrestrial habitat good with hawthorn scrub and woodland to the south, immature willows to the north.

Pond 6 (Area: 155m^2)

Ephemeral pool within brickworks site, dry after first survey visit.

Small area of greater reedmace at the northern end. Terrestrial habitat poor with only a few immature willow at the northern edge, to the other sides there was sparse ephemeral short perennial vegetation and bare ground.

Pond 7 (Area: 3002m^2)

Large pond collecting runoff from within landfill site. Greater reedmace present around all edges and algae present within the waterbody. Depth >2m.

Terrestrial habitat good – broadleaf woodland to the east and bramble scrub with immature trees to the south. Rank grassland with planted immature broadleaf trees to the west and sparse grassland to the north which is capped landfill.

Pond 8 (Area: 845m^2)

Deep pool forming part of run-off from landfill and clay quarry. Depth 6m+ with steep sides and no aquatic or marginal vegetation. Some algae obvious within the waterbody. Close access to the edge was not possible for safety reasons.

No terrestrial habitat – steep sides and bare clay forming surrounds.

Pond 9a (Area: 126m^2)

Pond on edge of clay quarry, aquatic vegetation including brooklime (*Veronica beccabunga*) with emergent great willowherb (*Epilobium hirsutum*) rosettes. blanketweed present.

Terrestrial habitat good – pond surrounded by tall ruderal vegetation with woodland and scrub to the south and east. Wider area is tussocky grassland to east.

Pond 9b (Area: 429m^2)

Pond surrounded by woodland within 10m of Pond 9a. Aquatic vegetation includes water crowfoot, with brooklime and great willowherb rosettes along the southern, more open edge. Blanketweed abundant. Lots of leaf litter in pond and overhanging branches shading pond.

Terrestrial habitat good – surrounded by broadleaf trees with woodland to south and tussocky grassland further to east.

Pond 10 (Area: 75m^2)

No access possible (private land).

Pond 11 (Area: 532m^2)

Attenuation pond at entrance of industrial estate. Rectangular with concrete lining, banks steep and several inputs from drainage system of estate. Only aquatic vegetation was an area of broad leaved pondweed at the western end, there is emergent willow at eastern end and a small area on northern edge.

Terrestrial habitat moderate – amenity grassland with little value to north but good to south with hawthorn hedgerow and bramble scrub.

2 SURVEY AND ASSESSMENT METHODOLOGY

2.1 Pre-existing information on great crested newt in the area

Worcestershire Biological Records Centre provided details of great crested newts within 2km of the site, the results are summarised in Table 2.1.

Table 2.1 – GCN records and distance from site

Location	Status	Distance from site
SO 866 702	Breeding pond	0.59km NE
SO 851 688	Breeding pond	1.22km SW
SO 857 709	Breeding pond	0.98km NNW
SO 839 683	Breeding pond	2.45km SW

2.2 Field survey

2.2.1 Methodology

Survey methodology conformed to standards outlined in the Great Crested Newt Mitigation Guidelines (English Nature, 2001).

A minimum of 4 visits were required to establish presence-absence with two additional surveys required to make a population estimate in ponds where GCN were found. Survey methods included torchlight survey, bottle trapping, sweep netting and egg searching. An assessment was also made of the quality of terrestrial newt habitat in the surrounding area.

Torchlight survey

From dusk, ponds were inspected by torchlight to detect any amphibians present. All accessible pond margins were searched by slowly scanning the water with a 500,000 candle power torch. Particular care needed to be taken as GCNs tend to lie below the surface and can be more difficult to survey than other newt species. Torch survey results show variation according to weather conditions and are carried out only under the following conditions: night-time air temperature >5°C, no/little wind, no rain. March to June is the optimum time, and warm, still evenings without rain are the most productive. Torching is a suitable technique for measuring relative abundance, and counts are prone to showing 'declines' over the summer as vegetation cover increases.

Bottle trapping

Bottle traps were fixed around the edge of the pond at an approximate density of 1 per 2m of pond margin in the early evening.

Bottles were retrieved the following morning and the number of newts caught recorded and released.

Egg searching

Live and dead submerged vegetation was searched for GCN eggs which are laid on the leaf surface the leaf 'folded' around the egg. GCNs tend to deposit their eggs on relatively larger leaved plants than smooth and palmate newts *Lissotriton vulgaris, L. helveticus* making their egg locations particularly conspicuous. This is often a very effective method for detecting GCN presence, but eggs can be difficult to find in heavily vegetated ponds with small newt populations, or those with no accessible vegetation.

Searches are conducted with care not to damage the eggs or the aquatic and marginal vegetation. It is necessary to 'unwrap' eggs to confirm identification and there is some evidence that exposed eggs may be more prone to predation and UV radiation impacts. Once GCN eggs have been reliably identified this method is not subsequently used. Egg counts are therefore not carried out as this method does not give any meaningful quantitative information on population size.

Netting

Using a long-handled dip-net, GCNs can be captured by sampling the area around the pond edge. The perimeter of the pond is netted for at least 15 minutes per 50m of shoreline. During later survey visits it is possible to net and identify GCN larvae.

2.2.2 Timing

The survey work was carried out on 7th and 27th April, 11th and 17th and 23rd May and 2nd, 8th and 13th June 2011. Surveys on some of the ponds did not commence until the third site visit hence there were 8 visits to the site in total.

Bottle traps were collected and netting undertaken the following morning.

2.2.3 Weather conditions

Weather conditions were generally good during the evening surveys with little rain or wind to disturb the surfaces of the ponds. Evening air temperatures were 6°C - 18°C.

Table 2.2.3 – Summary of weather conditions during GCN surveys in 2011

DATE	SURVEY OCCASION	WEATHER	TEMP/ °C
07/04/11	1	Dry, still, clear	13
27/04/11	2	Dry, still, clear	12
11/05/11	3	Dry, still, 50% cloud	13
17/05/11	4	Some drizzle, still, overcast	11
23/05/11	5	Drizzle, light breeze, overcast	9
02/06/11	6	Dry, still, clear	18

DATE	SURVEY OCCASION	WEATHER	TEMP/ °C
08/06/11	7	Dry, still, clear	6
13/06/11	8	Dry, still, partial cloud	8

2.2.4 Personnel

The survey work was carried out by Paul Lupton (GCN handling licence no. 20103374), Claire Gilchrist (GCN handling licence no. 20111471), Dr Caroline Gregory (GCN handling licence no. 20112187) and Frank Daly (GCN handling licence no. 20110163). Paul is a director Argus Ecology and all other surveyors are ecologists employed by Argus Ecology. All are experienced amphibian surveyors and hold the relevant Natural England licence. The report was compiled by Paul Lupton.

3 RESULTS

3.1 Survey results

Newts of two of the three native species were detected during the course of the surveys. Great crested newts were found in ponds 2, 9a, 9b and 11. Smooth newts were found in a number of the water bodies.

The results of the surveys are summarised in Tables 3.1 – 3.17.

Pond 1a

No great crested newts were found in Pond 1a during any of the survey visits. Smooth newts were recorded and a smooth female was netted on one occasion. No newt eggs were found.

Gold fish were also found to be present in the pond.

Invertebrates included damselfly (Zygoptera) nymphs, backswimmers (Notonectidae), pond skaters (Gerridae) and pond snail (*Lymnaea sp.*).

Table 3.1 – Pond 1a – summary data of great crested newt surveys in 2011

Date	Torchlight Survey								Bottle Trapping					
	GCN			SN/PN			Toad	Frog	GCN			SN/PN		
	M	F	T	M	F	T			M	F	T	M	F	T
27/04/11												2	1	**3**
11/05/11												1	2	**3**
17/05/11														
23/05/11												1		**1**

M = male, F = female and T = total

Pond 1b

No great crested newts were found to be using Pond 1b. Smooth newts were present but no newt eggs were found.

Gold fish were also found to be present in the pond.

Invertebrates included backswimmer and dragonfly (Anisoptera) nymphs.

Table 3.2 – Pond 1b – summary data of great crested newt surveys in 2011

Date	Torchlight Survey								Bottle Trapping					
	GCN			SN/PN			Toad	Frog	GCN			SN/PN		
	M	F	T	M	F	T			M	F	T	M	F	T
27/04/11												2	2	**4**
11/05/11													1	**1**
17/05/11														
23/05/11														

M = male, F = female and T = total

Pond 2

Great crested newts were found in Pond 2 on all six survey occasions. Smooth newts were also present. A frog was also recorded on one survey occasion. No newt eggs were found.

Invertebrates included water scorpion (*Nepa cinerea*) great diving beetle (*Dytiscus marginalis*), small diving beetle, water boatman, backswimmer, pond skaters, ramshorn snail (*Planorbis sp.*), snail eggs, dragonfly, damselfly and mayfly (Ephemeroptera) nymphs. Adult black-tailed skimmer (*Orthetrum cancellatum*), common blue damselfly (*Enallagma cyathigerum*) and common darter (*Sympetrum striolatum*) were also recorded at the pond.

Table 3.3 – Pond 2 – summary data of great crested newt surveys in 2011

Date	Torchlight Survey								Bottle Trapping					
	GCN			SN/PN			Toad	Frog	GCN			SN/PN		
	M	F	T	M	F	T			M	F	T	M	F	T
27/04/11	13	10	**23**	21	12	**33**			18	4	**22**	12	3	**15**
11/05/11	2	5	**7**	2	1	**3**			4	5	**9**	7	3	**10**
17/05/11				1	3	**4**			1	1	**2**	1		**1**
23/05/11				2	6	**8**								
02/06/11					2	**2**						5		**5**
08/06/11				1	2	**3**		1				2	1	**3**

M = male, F = female and T = total

Pond 3

The pool was dry after the first survey occasion.

Pond 4

The pool was dry after the first survey occasion.

Pond 5

No great crested newts were found to be using Pond 5. Smooth newts were present but no newt eggs were found.

Invertebrates included water boatman, pond snails, backswimmer and damselfly nymphs.

Table 3.4 – Pond 5 – summary data of great crested newt surveys in 2011

Date	Torchlight Survey								Bottle Trapping					
	GCN			SN/PN			Toad	Frog	GCN			SN/PN		
	M	F	T	M	F	T			M	F	T	M	F	T
27/04/11												4	1	**5**
11/05/11												1		**1**
17/05/11												1		**1**
23/05/11														

M = male, F = female and T = total

Pond 6

The pool was dry after the first survey occasion.

Pond 7

No great crested newts were found to be using Pond 7. Smooth newts were present and efts netted.

Invertebrates included water stick insect (*Ranatra linearis*), water scorpion, pond snail, water hoglouse (*Ascellus aquaticus*), backswimmers, freshwater bivalves, water boatmen, freshwater shrimp (*Gammarus sp.*), midge larvae (Chironimidae), raft spiders and mayfly nymphs.

Two coots (*Fulica atra*) were seen using the pond.

Table 3.5 – Pond 7 – summary data of great crested newt surveys in 2011

Date	**Torchlight Survey**								**Bottle Trapping**					
	GCN			**SN/PN**			**Toad**	**Frog**	**GCN**			**SN/PN**		
	M	**F**	**T**	**M**	**F**	**T**			**M**	**F**	**T**	**M**	**F**	**T**
27/04/11														
11/05/11				2		**2**							1	**1**
17/05/11												1		**1**
23/05/11				1		**1**							1	**1**

M = male, F = female and T = total

Pond 8

Pond 8 had very steep sides and deep water and was considered to be low risk for use by amphibians. The pond was therefore only surveyed in order to calculate the Habitat Suitability Index (HSI) of the water body and surrounding habitat.

The HSI was developed by Oldham *et al*. (2000) and is used by Natural England as part of the evaluation system for the European protected species (EPS) licensing process. It is a scoring system that is a way of evaluating habitat quality and quantity. In general, ponds with a high HSI are more likely to support a GCN population than ones with a low HSI.

An HSI score for Pond 8 was calculated and the results are presented in Table 3.6.

Table 3.6 – HSI score for pond 8 (form from Natural England 2008)

Pond ref	Pond 8
SI1 - Location	1
SI2 - Pond area	0.8
SI3 - Pond drying	0.9
SI4 - Water quality	0.01

SI4 - Shade	1
SI6 - Fowl	0.67
SI7 - Fish	1
SI8 - Ponds	1
SI9 - Terr'l habitat	0.01
SI10 - Macrophytes	0.3
HSI	0.33

Using the Natural England HSI methodology the pond would be regarded as 'poor' in terms of its ability to support a GCN population. A 'poor' assessment is represented by an HSI score of 0.5 or below and it effectively means that the probability of GCN using the water body and surrounding habitat is < 0.03.

Pond 9a

Great crested newts were found in Pond 9a on 5 of the 6 survey occasions and a maximum of 7 GCN efts were netted. Smooth newts were also present and smooth newt eggs were found during egg searching.

Invertebrates included raft spiders, diving beetle adults and larvae, backswimmer, water boatman, pond snails, dragonfly and mayfly nymphs.

Sticklebacks (*Gasterosteus aculeatus*) were identified in low numbers.

Table 3.7 – Pond 9a – summary data of great crested newt surveys in 2011

Date	**Torchlight Survey**								**Bottle Trapping**					
	GCN			**SN/PN**			**Toad**	**Frog**	**GCN**			**SN/PN**		
	M	**F**	**T**	**M**	**F**	**T**			**M**	**F**	**T**	**M**	**F**	**T**
07/04/11	8	9	**17**	12	8	**20**			7	4	**11**	7	8	**15**
27/04/11	1		**1**	2	1	**3**							2	**2**
11/05/11												1	3	**4**
17/05/11										1	**1**	4	1	**5**
23/05/11														
02/06/11		1	**1**			**3**						4	4	**8**

M = male, F = female and T = total

Pond 9b

Great crested newts were found in Pond 9b on 5 of the 6 survey occasions, great crested newt eggs were found on willowherb leaves and GCN efts were netted. Smooth newts were present and efts were also netted.

Invertebrates included great diving beetle, raft spiders, water hoglouse, backswimmer and dragonfly nymphs.

Low numbers of stickleback were seen using the pond. A moorhen (*Gallinula chloropus*) and three mallards (*Anas platyrynchos*) were also seen using the pond.

Table 3.8 – Pond 9b – summary data of great crested newt surveys in 2011

Date	**Torchlight Survey**								**Bottle Trapping**					
	GCN			**SN/PN**			**Toad**	**Frog**	**GCN**			**SN/PN**		
	M	**F**	**T**	**M**	**F**	**T**			**M**	**F**	**T**	**M**	**F**	**T**
07/04/11	2	2	**4**	1	2	**3**			11	10	**21**	6	4	**10**
27/04/11										3	**3**	3		**3**
11/05/11										4	**4**	1	1	**2**
17/05/11														
23/05/11											**1**	1		**1**
02/06/11	8	9	**17**	1	7	**8**								

M = male, F = female and T = total

Pond 11

Great crested newts were found in Pond 11 on 4 of the 7 survey occasions and breeding behaviour was observed. Low numbers of smooth newts were also found to be using the pond.

Invertebrates included leeches (Hirudinea), diving beetles, water boatmen, backswimmer and oligochaetes.

Mallard ducks were also observed using the pond.

Table 3.9 – Pond 11 – summary data of great crested newt surveys in 2011

Date	**Torchlight Survey**								**Bottle Trapping**					
	GCN			**SN/PN**			**Toad**	**Frog**	**GCN**			**SN/PN**		
	M	**F**	**T**	**M**	**F**	**T**			**M**	**F**	**T**	**M**	**F**	**T**
07/04/11	94	58	152	2	2	**4**			2	1	**3**		2	**2**
27/04/11	31	23	**54**											
11/05/11														
17/05/11	2		**2**		1	**1**								
23/05/11														
02/06/11														
08/06/11	1	1	**2**		1	**1**								

M = male, F = female and T = total

3.2 Summary of survey results by pond

Table 3.2. Summary of results for each pond

Pond No	Summary of findings
1a	No GCN detected
1b	No GCN detected
2	**Maximum 23 adult GCN, breeding behaviour observed**
3	Not surveyed – dry after first survey
4	Not surveyed – dry after first survey
5	No GCN detected
6	Not surveyed – dry after first survey
7	No GCN detected
8	HSI score 0.33 – not surveyed
9a	**Maximum 17 adult GCN, efts detected**
9b	**Maximum 21 adult GCN, eggs and efts detected**
10	Not surveyed – no access
11	**Maximum 152 adult GCN, breeding behaviour observed**

3.3 Survey Constraints

The survey was carried out at an optimum time of year and under suitable conditions. There was drizzle on a couple of survey occasions but insufficient to disturb the surface of the ponds enough to obscure torchlight surveys. Constraints were associated with physical conditions of individual ponds. Constraints are summarised in Table 3.2.

Table 3.2 Survey constraints at individual ponds

Pond No.	Constraint
Ponds 1a and 1b	Poor visibility for torching on first survey occasion
Pond 5	Only 50% of shoreline accessible and sides steep and water too deep to wade. Smooth newts were detected on 3 of the 4 survey occasions and it is thought likely that GCN would have been detected if present.
Pond 7	Only 50% of shoreline accessible and sides steep and water too deep to wade. Smooth newts were detected on 3 of the 4 survey occasions and it is thought likely that GCN would have been detected if present.
Pond 11	Pond covered in blossom – zero visibility on third torchlight survey occasion so 7 visits carried out. Not possible to bottle trap pond due to concrete sides, 5 bottles placed in pond on first occasion but torchlight survey more effective method. Not possible to carry out egg search

	as vegetation could not be reached however breeding behaviour of adults observed and likely to be breeding pond.

4 INTERPRETATION AND EVALUATION

The results gained during the survey are used to make a population estimate according to English Nature's Great Crested Newt Mitigation Guidelines (2001). The distance from the site is an 'as the crow flies' measurement from the edge of the site nearest to the pond to the nearest pond edge. Table 4. Summary of GCN breeding ponds within 500m of the site boundary

Pond number	Distance from site (m)	Maximum count	Population estimate
2	466	23	Medium
9a	324	17	Medium
9b	327	21	Medium
11	285	152	Large

There is 1 large and 3 medium breeding populations of great crested newt in ponds within 500m of the site. All breeding ponds are in excess of 250m from the site boundary.

5 IMPACT ASSESSMENT AND MITIGATION

Great crested newts were recorded in four ponds within 500m of the site boundary; these are Ponds 2, 9a, 9b and 11.

Natural England currently provides a rapid risk assessment tool in its licensing documents to assess if an offence is likely to occur. This is based on the area of terrestrial habitat to be lost and distance from the breeding pond. The total area within the site (including a poplar plantation at the east of the site which is to be retained) is 3.44ha and the nearest breeding pond is 285m from the site boundary. The result of the rapid risk assessment tool is reproduced below.

Table 5. Results of rapid risk assessment tool

Component	**Likely effect** (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	1 - 5 ha lost or damaged	0.04
Individual great crested newts	No effect	0
Maximum:		0.04
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

This tool indicates that licensing in respect of great crested newts at the site is not necessary however terrestrial habitat will still be lost as a result of the development. Compensation will be required and will include provision of hibernacula created from logs, rubble and earth to be placed within the poplar plantation at the east of the site and along the northern site boundary.

6 SUMMARY

An EfW plant is proposed at a vacant plot on Hartlebury Trading Estate. There is suitable terrestrial habitat for great crested newts on the site and several ponds within 500m.

Great crested newt surveys were carried out at the ponds in accordance with Natural England's guidance with four visits for presence / absence surveys and where great crested newts were found a further two surveys were carried out to inform a population estimate. Four ponds within 500m of the proposed site support great crested newts and had evidence of breeding activity.

The proposed development will impact on terrestrial habitat within 500m of 4 great crested newt breeding ponds although none are within 250m. The impact of the scheme on great crested newts is assessed as low due to the distance of the ponds to the site and as higher quality terrestrial habitat exists closer to the breeding ponds. Natural England's tool for assessing likely impact of schemes also returns a "green – no offence likely result".

Licensed works are not deemed necessary although habitat enhancement works within the poplar plantation will mitigate for habitat lost on the site. This will include provision of artificial hibernacula to improve terrestrial habitat on the site.

It must be noted that the surveys confirm conclusions drawn as part of the EIA, and discussion held with Natural England during the determination period.

7 REFERENCES

Gent, A. H. & Gibson, S.D. (Eds.) (1998, 2003). *The Herpetofauna Workers' Manual*. Joint Nature Conservation Committee, Peterborough.

Guest, J. (2006) Survey to assess the suitability of ponds for Great Crested Newts (*Triturus cristatus*).

Langton, T.E.S., Beckett, C.L. & Foster, J.P. (2001). *Great Crested Newt Conservation Handbook*. Froglife. Halesworth.

Natural England (2008). *Great crested newt mitigation licence method statement*. WML-A14-2 method statement.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155

Whitehurst, J. (2001) *Great Crested Newt Mitigation Guidelines: Version August 2001*. English Nature.

APPENDIX 1 Photographs

Plate 1 Pond 1a

Plate 2 Pond 1b

Plate 3 Ditch leading to Pond 2

Plate 4 Pond 3

Plate 5 Pond 4

Plate 6 Pond 5

Plate 7 Pond 7

Plate 8 Pond 8

Plate 9 Pond 9a

Plate 10 Pond 9b

Plate 11 Pond 11

Appendix C

Letter from Natural England (5th September 2011)

Date: 5 September 2011
Our ref: **31238**
Your ref: Email 17.8.11

Axis
(On behalf of Mercia Envirecover)

Block B
Government Buildings
Whittington Road
Worcester
WR5 2LQ

T 0300 060 1640

For the attention of Andy Russell

By Email

Dear Andy

Hartlebury Energy from Waste facility proposal – Great Crested Newt Position Statement

Thank you for your email dated 17 August 2011.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Natural England acknowledges the position statement and has the following comments:

We note that the two great crested newts found on the application site were discovered during the course of a reptile translocation exercise. That translocation exercise has been conducted by the applicant on a risk based approach taking into consideration the circumstances of the proposal. We note that the ecologist conducting the trapping exercise stopped work and discussed the great crested newt discovery with an appropriate member of staff from Natural England before proceeding further. We understand that the discussion was 'in principle' i.e. the location and details of the proposal were not part of the conversation.

We welcome the survey of neighbouring ponds and note the great crested newt populations discovered in the locality (two 'medium' populations and one large). We acknowledge Axis' conclusions on how the two great crested newt individuals came to be found on the application site. Looking forward however, in view of the great crested newt populations discovered during survey work in the locality during 2011, the two individuals discovered on the application site and the suitability of that site as great crested newt terrestrial habitat we remind the applicant of the legal protection afforded to this species.

Should you wish to discuss this response please do not hesitate to contact me at the above address.

Yours sincerely

Antony Muller
Lead Advisor
Natural England Land use Operations Unit
Direct Dial: 0300 060 1640
Mobile: 07971 294109
e-mail: antony.muller@naturalengland.org.uk

Advice note to local planning authorities

We would urge the Council to take note of the following points:

Landscape issues

The proposal site does not fall within any nationally designated landscapes. All proposals however should complement and where possible enhance local distinctiveness and be guided by the council's landscape character assessment.

Local authority biodiversity duty and opportunities for enhancement

Under section 40(1) of the *Natural Environment & Rural Communities Act 2006* a **duty** is placed on public authorities, including local planning authorities, to have regard to biodiversity in exercising their functions. This duty covers the protection, enhancement and restoration of habitats and species.

Planning Policy Statement 9 (Biodiversity and Geological Conservation) also expects local authorities to prevent harm to biodiversity and geological interests. Part (vi) of the Key Principles makes it clear how the government expects the council to consider planning decisions that could lead to harm to biodiversity and geological interests. Section 10 on ancient woodland and section 12 on networks of natural habitats describe how these particular biodiversity features should be protected from development.

When considering applications the council should maximise opportunities in and around developments for building in beneficial feature as part of good design, such as the incorporation of roosting opportunities for bats or the installation of bird nest boxes. This is in accordance with the duty on the council described above and in paragraph 14 of PPS 9.

Local Sites

If the proposal site is on or adjacent to a local wildlife site and/or local geological site, e.g. Site of Nature Conservation Importance (SNCI) or Local Nature Reserve (LNR) the county ecologist and/or local Wildlife Trust should be contacted.

Species Protected by Law

The presence of a protected species is a material consideration when the council is considering a development proposal that could result in harm to a species or its habitat. If there is a reasonable likelihood of a protected species being present or if representations from other parties highlight the possible presence of protected species and affected by a development then the council should require the applicant to provide the following information:

- **Survey** - thorough and robust survey of the development site and any other areas likely to be affected by the proposals for protected species;

- **Impact assessment** – clear assessment of the likely impacts of the proposal upon protected species;

- **Mitigation strategy** – to clarify how the likely impact will be addressed in order to ensure no detriment to the maintenance of the population at a favourable conservation status of the protected species. This should be proportionate to perceived impacts and must include clear site-specific prescriptions rather than vague, general or indicative possibilities; and

- **Delivery mechanisms** – to include additional information as appropriate to the mitigation strategy that will be required to ensure that the proposed mitigation works are feasible and deliverable e.g. architects plans, licenses, planning agreements, contractors' precautionary method statements.

When dealing with European protected species the council is a competent authority as defined by Regulation 9(5) of the Habitats Regulations. This requires you to have regard for the requirements of the Habitats Directive in the exercise of your functions. When dealing with a case where a European species could be affected, the council should satisfy itself that the

development meets the 3 requirements of Article 16 of the Habitats Directive – that there is no satisfactory alternative, that there are imperative reasons of over-riding public interest and that the favourable conservation status of the species will not be affected. Imposing a condition on an applicant requiring them to obtain a licence from Natural England will not be sufficient to discharge the council's duty under the Habitats Regulations.

BAP Priority Species

If representations from other parties highlight the possible presence, or the Council is aware of Biodiversity Action Plan (BAP) priority species on the site, the Council should request survey information from the applicant before determining the application. Paragraph 84 of ODPM Circular 06/2005 and Paragraph 16 of Planning Policy Statement 9 provide information on BAP species and their consideration in the planning system.

Appendix D

Email Correspondence with Natural England (23rd September 2011)

Andrew Russell

From: Muller, Antony (NE) [Antony.Muller@naturalengland.org.uk]
Sent: 23 September 2011 10:06
To: Andrew Russell
Cc: Murray, Kathryn (NE); Mansfield, Cressida (NE); Pankhurst, Hayley (NE)
Subject: RE: Merida EnviRecover - GCN statement response

Andrew

As discussed on the phone:

Based on the information in the Gt crested newt position statement we advise the following

1. As newts (a strictly protected species) have been found on site, and are still expected to be on site, a mitigation licence will be required to capture and move them prior to the commencement of any development. The consultant and developer will be expected to submit an application to FPS.Mitigation@naturalengland.org.uk, following guidance in the 'How to get a licence' document and other published great crested newt guidance (see below). Given that the ecologists have explained that newts are likely to have access the site via drainage ditches, particular attention should be paid to how GCNS will be fenced out, trapped and excluded from the development footprint to ensure that GCN cannot inadvertently get back on site during the construction period. (Longer term exclusion may be needed if newts would be harmed by the ongoing operation of the Energy from Waste site).
2. Natural England believes *based on the information provided*, that due to the distribution of the newt metapopulations and suitable aquatic and terrestrial habitats in the wider area, in particular the proximity of the nearest newt ponds, that the development is unlikely to adversely affect the conservation status of the local newt population. This, of course, will be *dependent* on the detail of the development and its impacts, but with suitable mitigation and planning this could well be managed so potential impacts are not detrimental to the population at a favourable conservation status

My licensing colleagues Kathryn Murray and Cressida Mansfield are willing to chat through mitigation proposals for the development when you have designed your proposals and know what you will be doing. They have emphasised that Natural England is not in a position to effectively peer review an application/method statement. our offer is for informal advice.

Guidance which will be helpful:

- Important reading to understand the licensing process: **'How to get a licence'** http://www.naturalengland.org.uk/Images/wml-g12_tcm6-4116.pdf

- General Natural England Wildlife Management web link: http://www.naturalengland.org.uk/ourwork/regulation/wildlife/default.aspx

- Application forms http://www.naturalengland.org.uk/ourwork/regulation/wildlife/licences/applicationforms.aspx (Under each species columns, we provides links to other useful guidance available for putting together an application, including Handy Hints, Experience requirements, the various mitigation guidelines, putting together a work schedule, guidance on master plan requirements, an example bat method statement, why we advise not to over mitigate, and much more)

Contact details for Kathryn and Cressida =

- Cressida Mansfield - 01353 775414 - Cressida.Mansfield@naturalengland.org.uk
- Kathryn Murray – 0300 060 1917 – kathryn.murray@naturalengland.org.uk

Kind regards

Antony

Antony Muller

Lead Advisor

Natural England Land-use Operations Team
Direct dial - 0300 060 1640
Mobile - 07971 294109

Appendix E

Minutes of Telephone Conference (4th October 2011)

TELEPHONE CONF. MINUTES

CONFIDENTIAL

Well House Barns
Chester Road
Bretton
Chester
CH4 0DH

Date of Meeting: 04/11/2011	**Time:** 10:00 – 11:15
Location: Telephone Conference	**Project No:** 1176-01
Present:	Andrew Russell (AR) (Axis) Paul Lupton (Argus) Kathryn Murray (Natural England) Cressida Mansfield (Natural England)

Item		Action
1.	**Introductions**	
1.1	Axis (represented by AR) is the planning advisor for the EnviRecover scheme. Argus (represented by PL) is the ecological advisor for the EnviRecover scheme. KM is a European Protected Species Officer for Natural England. CM is a Wildlife Management Advisor for Natural England.	
1.2	CM outlined that Natural England were happy to provide informal advice in relation to the project but they could not comment on whether a GCN licence could be granted prior to the licence application.	
2.	**Background**	
2.1	AR described the background to the scheme. Key points: - ES concluded that there was unlikely to be harm to GCN. - Objections raised in the determination period. As such clarifications were provided to Natural England on why it was considered unlikely that GCN would be present at the site. Key reasons being distance to potential breeding ponds and habitat connectivity. - Mercia Waste Management (developer) decided to commission GCN surveys of nearby ponds. This identified GCN in a number of nearby ponds. The closest of which is approx. 300m to the north east. - The findings of the survey work did not alter previous conclusions and GCN not considered at risk due to distance and poor habitat connectivity between the site and the ponds. - The reptile exclusion exercise started at the site in Spring 2011. Two individual GCNs identified near the beginning of the trapping exercise. Natural England consulted and it was agreed that the exercise could continue. - No further GCN identified until September 2011 - over 90 trapping days with no GCN identified.	

2.2	PL described how GCN may have accessed the site. It is thought that GCN may have been transported to the site via the ditch that flows from the north. In spring 2011 unusually high flows were experienced as a result of drainage works at the landfill to the north of the site. This may have transported GCNs from the area to the north where there are known populations of GCN.	
2.3	Considered unlikely that GCN would have travelled from the south (where GCN populations are present) as this would be against the flow of the surface water drainage system at the site. There are also no obvious terrestrial habitat corridors leading to the breeding pond to the south.	
2.4	It was agreed that it would be appropriate to apply for a GCN licence to enable GCN to be moved off the site.	
3.0	**Approach to Mitigation**	
3.1	PL described approach to drift fencing. The most complicated element of the exclusion scheme would be trapping out along the watercourses. The order of trapping/exclusion would be as follows: i) The ditches within the site would be isolated using drift fences. ii) GCN would be excluded from the site using pitfall traps and artificial refugia. The isolated ditch corridors would not be trapped out at this stage. iii) Following exclusion, the new drainage ditch will be constructed around the perimeter of the site. An exclusion fence would then be erected along the boundary of the new ditch. The flow from the existing ditches would then be diverted into the new channel. iv) The original drainage ditches would then be hand searched for GCN prior to being filled.	
3.2	KM/CM queried whether bottle trapping would be required. It was confirmed that there are no 'ponded' areas in the ditch and as such bottle trapping would not be effective. KM/CM advised that the licence methodology would need to clearly describe the methods to be used to clear the ditches of GCN.	PL
3.3	KM/CM queried the timing of the ditch clearance. PL/AR outlined that given the very low numbers of GCN likely to be present and that ditches are unlikely to provide suitable breeding habitat there should be no issue on the timing of the ditch clearance. KM/CM requested that sufficient information is provided in the licence application regarding timing of exclusion works and the habitats present within the ditches at the site, this should include photographs of the ditches at the site.	PL
3.4	PL described the potential use of 'newt grids' on the access track that runs through the site to the sewerage treatment works. KM/CM were familiar with the use of these grids, the grids should be of sufficient depth to prevent GCN from escaping.	PL
3.5	KM/CM commented that the method statement in the licence application should be 'smart and succinct' and sufficient detail should be included on plans to fully describe the mitigation scheme.	PL
3.6	KM/CM queried whether the pond at the site was considered to be mitigation or compensation. AR confirmed that the pond was a surface water attenuation feature. As such it was agreed that this would provide compensation but was not mitigation as no ponds would be lost as part of the development.	
3.7	KM/CM advised that the location of the refugia to be provided as mitigation should be positioned close to the locations where GCN were likely to access the site i.e. along the diverted watercourse.	PL

3.8	KM/CM commented that the landscaping scheme should provide appropriate planting for GCN habitat and that this could then form part of the mitigation scheme.	PL
3.9	KM/CM queried the requirement for permanent exclusion fencing at the site. AR commented that this formed part of the current reptile mitigation scheme. PL to determine if this is strictly necessary to protect reptiles, if not then it may be preferable to not include permanent exclusion fencing. If required then it should be explained within the GCN licence application.	PL
3.10	KM/CL commented that the licence application should be straight forward. The method statement would need to be clearly set out and timings of works described. It would be important to explain why the mitigation and trapping is based on the numbers of GCN likely to be present at the site rather than the numbers of GCN found in nearby ponds.	
4.0	**A.O.B**	
4.1	AR queried whether OK to continue with reptile trapping next spring in advance of the GCN licence. KM/CL agreed this would be OK. However, no vegetation clearance should be undertaken prior to receipt of licence.	
4.2	AR queried if ground investigation could be undertaken at the site. KM/CL advised that this would be the decision of the project ecologist as to whether GCN were likely to be harmed by the works.	

Appendix F

Indicative Programme for GCN Mitigation Works

ACTIONS	2012																					
	March		April		May		June		July		August		September		October		November		December	
Planning consent achieved																				
Application for Natural England licence																				
Perimeter amphibian fencing installed																				
Amphibian fencing installed to isolate ditches																				
Drift fencing installed																				
Pitfall traps opened and artificial refugia in place in both the site in general and also inside the ditches																				
Trapping starts - 30 days then 5 GCN free days.																				
Construction of the new perimeter ditch inside the perimeter fencing																				
Erection of the secondary amphibian fencing on the development side of the diverted channel																				
Destructive hand search of the ditches with all amphibians (and other species) found being removed and placed outside the perimeter fencing on the northern and eastern boundary of the development site.																				
Removal of drift fencing and internal fencing around the ditches																				
Maintenance of the perimeter fencing for the period of the construction works																				

Note: The timescales illustrated are indicative only and are dependent on the timing of the grant of planning permission. The programme does demonstrate the anticipated order of events and the likely timescales over which the mitigation works would be undertaken.

Mitigation timescales associated with an early grant of planning permission
Mitigation timescales associated with a late grant of planning permission

Appendix G

Addendum to the Non-Technical Summary

Mercia EnviRecover

PROPOSED DEVELOPMENT OF AN ENERGY FROM WASTE FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

ENVIRONMENTAL STATEMENT
REGULATION 19 SUBMISSION (3b)

NON-TECHNICAL SUMMARY
ON OTHER INFORMATION IN RESPECT OF POTENTIAL EFFECTS ON GREAT CRESTED NEWT

OCTOBER 2011

This report has been prepared in support of the planning application for the Mercia EnviRecover Development on behalf of Mercia Waste Management. The application has been co-ordinated by Axis with technical inputs from:

- AXIS – Planning, Transportation, Landscape & Visual, Archaeology & Cultural Heritage, Surface Waters & Flood Risk
- Hyder - Geology & Hydrogeology
- Fichtner – Facility Design, Process Description and Justification, Air Quality & Health Assessment
- Argus – Ecology and Nature Conservation
- NVC – Noise
- Studio E – Facility Design and Architecture

Camellia House
Water Lane
Wilmslow
SK9 5BB

CONTENTS

FIGURES

FOREWORD

This Environmental Statement is submitted in support of a planning application made by Mercia Waste Management to develop the Mercia EnviRecover facility an Energy from Waste facility, on land at Hartlebury Trading Estate in Worcestershire. The Environmental Statement comprises the following documents:

- The Environmental Statement (ES) Main Report (Volume 1), which contains the detailed project description; an evaluation of the current environment in the area of the proposed development; the predicted environmental impacts of the scheme; and details of the proposed mitigation measures which would alleviate, compensate for, or remove those impacts identified in the study. Volume 1 also includes a summary of the overall environmental impacts of the proposed development and all relevant schematics, diagrams and illustrative figures;
- Technical Appendices (Volume 2), which include details of the methodology and information used in the assessment, detailed technical schedules and, where appropriate, raw data. (Volume 2 is printed in black and white. However, a CD is enclosed that includes a colour version of all the technical reports);
- A Non-Technical Summary (Volume 3), containing a brief description of the proposed development and a summary of the ES, expressed in non-technical language;
- An update to the ES by way of a series of Regulation 19 submissions of further environmental information, comprising:
    - A Reptile Survey and Mitigation Plan (Regulation 19 Submission No.1)
    - A Revised Non-Technical Summary (Volume 3) with addition of a description of the main alternatives considered by the applicant (Regulation 19 Submission No.2a);
    - An assessment of the likely significant environmental effects of the facility's electrical grid connection (Regulation 19 Submission No.2b);
    - An assessment of the likely significant environmental effects of a heat off-take connection to Wienerberger's Waresley brickworks site, Hartlebury Trading Estate (Regulation 19 Submission No.3a); and
    - An update on potential effects on Great Crested Newts (Regulation 19 Submission No.3b).

Copies of the first three documents, as a three volume set, are available at a cost of £200 from Mercia Waste Management, The Marina, Kings Road, Evesham, Worcestershire, WR11 3XZ. Alternatively, the original and Revised Non-Technical Summary documents can be purchased on their own from the same point of contact for £15 each. Electronic copies of the Non-Technical Summaries are also available via email (enquiries@severnwaste.co.uk), free of charge. The Regulation 19 update documents are available as a complete set for £50. In addition, all of the planning application documentation, including the ES and Regulation 19 updates can be downloaded from www.envirecover.co.uk.

1.0 INTRODUCTION

1.1 This document forms an Addendum to the Mercia EnviRecover Environmental Statement (ES) Revised Non-Technical Summary (NTS) (August 2011). The Revised NTS and the original ES (April 2010) has been submitted in support of a planning application made by Mercia Waste Management (MWM) in April 2010 to develop the Mercia EnviRecover facility an Energy from Waste (EfW) facility, on land at Hartlebury Trading Estate in Worcestershire.

1.2 An ecological assessment of the proposed development was included within the Environmental Statement which accompanied the planning application. The ecological assessment concluded that the development was unlikely to result in significant impacts on great crested newt (GCN) populations in the local area, a species protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2011 (the Habitats Regulations). However, subsequent survey and ecological work carried out by MWM has revealed the presence, albeit in very limited numbers, of GCN on the application site. As a consequence MWM has produced this Addendum in order to fully evaluate this matter.

1.3 The Addendum contains a brief description, in non-technical language, of the work that has been undertaken by MWM to understand the potential impacts of the proposed development on GCN. The document should be read in conjunction with the Mercia EnviRecover Environmental Statement Revised Non-Technical Summary (August 2011).

1.4 It has been submitted under Regulation 19 of The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended) as *"Further information and evidence respecting environmental statements"*. In this instance the information contained within this report is provided voluntarily by the applicant as *Other Information* specifically for the purposes of an Inquiry held under the Town and Country Planning Act 1990.

2.0 BACKGROUND ECOLOGICAL INFORMATION

2.1 There are no ponds located within the proposed development site. The closest pond is located approximately 25 north to the north of the site boundary. Surveys of this pond have shown that it is not suitable for GCN. No other ponds are located within 250 m of the site.

2.2 The nearest potentially suitable GCN ponds are located approximately 300 m to the north east of the site. However, surveys of the area have shown that GCN are unlikely to access the development site from the ponds due to poor habitat connectivity.

2.3 Reptile surveys of the proposed development site were conducted over a period of three months in 2010 using survey methods that are also appropriate for identifying GCN. The surveys confirmed the presence of reptiles but no GCN were found. The survey findings reinforced the previous conclusions that the site was unlikely to contain GCN.

2.4 In spring 2011 MWM undertook GCN presence / absence surveys at 12 ponds within 500m of the site, the ponds are shown in Figure 1. These surveys identified GCN in four ponds, namely Pond 2, 9a, 9b and 11. Based on the distance to the ponds and the poor connectivity to the site it was still considered unlikely that GCN would use the habitat at the proposed development site.

2.5 In spring 2011 a reptile trapping exercise began at the site. This involved over 100 inspections of 400 artificial refugia (roofing felt 0.4m x 0.4m used to trap reptiles) laid across the site during the period May 2011 to September 2011. On the basis of the high trapping effort used it is clear that the site supports very few GCN.

2.6 Prior to the capture of the third GCN on the 16th September 2011 there had been 99 trapping days where no GCN were identified. As a result of the prolonged period of having identified no GCN at the site, MWM issued a Position Statement to Natural England setting out the results of the GCN pond surveys, the findings from the reptile trapping exercise and a discussion on the potential ways that GCN could have accessed the site (discussed below).

2.7 During the period of consultation with Natural England the third GCN was identified. Having considered the evidence included in the Position Statement and the fact that a third GCN had been identified at the site Natural England advised that a mitigation licence would be required to capture and move GCN at the site prior to the commencement of development.

Movement of GCN onto the site

2.8 On the basis of the evidence gathered during 2010 and 2011 it is apparent that the site only supports a small number of GCN and that there is poor connectivity to the site from distant GCN populations. This raises the question of 'Where did these three GCN come from?'

2.9 Potential explanations as to the presence of GCN on the site include:

- That the site forms a part of the terrestrial habitat of the local GCN populations.
- GCN have reached the site from the south through the surface water drains.
- GCN have been transported to the site from the north via surface water drains.

2.10 The most likely route by which GCN may have accessed the site is considered to be transport from the north via surface water drains. It is known that the land to the north supports a population of GCN. In addition it has been established that during spring 2011 high water levels were experienced within the ditches at the site. These high water levels were associated with drainage works in the clay pits to the north.

2.11 As such it is possible that GCN could have entered the drainage ditches to the north of the site and have been transported downstream. The GCN could then have been deposited onto the site during the periods when there was high levels of water flow within the open water ditches at the site. On the basis of the evidence collated to date this seems the most likely scenario to explain the presence of the three GCN identified at the site.

3.0 GREAT CRESTED NEWT MITIGATION PROPOSALS

3.1 On the basis of the evidence gathered to date it is considered that the site supports a low number of GCN, as such a mitigation strategy has been designed in line with Natural England guidelines to prevent harm to GCN. Key principles of the mitigation strategy are:

- measures to remove GCN from the development footprint through a process of fencing, trapping and translocation;
- measures to clear the existing ditches within the site of any GCN to enable the realignment of the watercourse;
- mitigation and habitat enhancement measures. These will include habitat management / landscaping to improve the quality of the available terrestrial habitat in the mitigation area, the introduction of artificial refugia and the provision of a potential GCN breeding ponds as a result of the construction of surface water attenuation lagoons at the site. These features would be constructed within the development site and would be opened up post-construction; and
- a monitoring programme to assess impact on the local meta-population.

3.2 Figure 2 illustrates the proposed fencing that would be used to trap and exclude GCN, Figure 3 illustrates the site post development and indicates the GCN mitigation and enhancement measures that would be included in the landscaping scheme.

4.0 GREAT CRESTED NEWT MITIGATION LICENCE

4.1 Three statutory tests must be met before Natural England can grant a licence for the GCN mitigation proposals (in the event that planning permission is granted). With regard to these tests, the Secretary of State should consider the likelihood of Natural England granting a licence and only refuse planning permission where he concludes that Natural England is unlikely to grant. The three tests are, that a licence can be granted:

- for the purposes of "*preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*".
- where the appropriate authority is satisfied "*that there is no satisfactory alternative*".
- where the appropriate authority is satisfied "*that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*"

4.2 With regard to *imperative reasons of overriding public interest* it is MWM's view that the development of the EnviRecover facility, with its associated significant sustainability, energy and economic benefits, would meet imperative reasons of overriding public interest.

4.3 With regard to *no satisfactory alternative* MWM (and indeed the County Councils) has undoubtedly explored alternatives in a comprehensive manner both in terms of solutions and sites. It has demonstrated that no satisfactory alternatives exist and that doing nothing is not an acceptable option.

4.4 With regard to the *maintenance of favourable conservation status* the report describes a mitigation scheme that includes a programme of trapping and exclusion and provision of habitat mitigation and compensation measures. It is considered that through the implementation of these measures the development would not result in harm to GCN that may be present at the site. As such, and on the basis that the survey evidence suggests a small population of GCN, it is considered that the proposed development would enable the GCN population to be maintained at a favourable conservation status.

4.5 On the evidence presented in this report it is considered that three aforementioned statutory tests would be met and as such it is likely that a European Protected Species Mitigation Licence would be granted in respect of the GCN identified at the site.

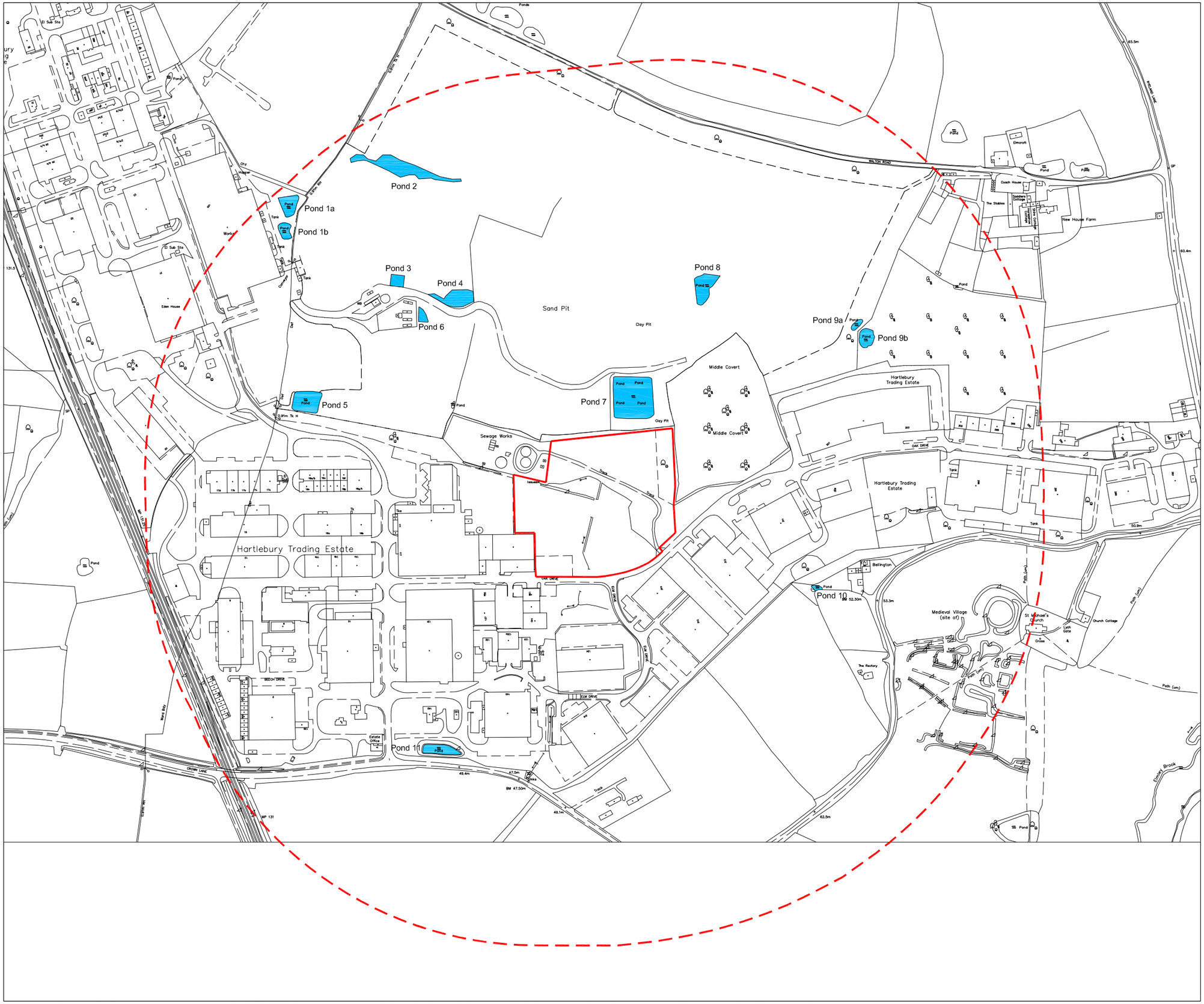
5.0 SUMMARY

5.1 Surveys undertaken at ponds within 500m of the site have shown that GCN are present in the local area. The closest GCN populations are approximately 300 m from the site. There are no obvious terrestrial linkages between these ponds and the proposed development site. However, during the reptile exclusion exercise undertaken in 2011, three GCN were identified.

5.2 Natural England has been consulted and it has been agreed that if planning permission is granted a European Protected Species Licence would be required prior to the commencement of development.

5.3 Mitigation proposals have been proposed to avoid harm to GCN. Evidence has also been provided to show that that the development complies with the three legal tests that must be considered by Natural England in granting a licence. As such there are no reasons why such a licence should not be granted (should planning permission be secured). Through the implementation of the proposed mitigation measures, it can be concluded that the proposed development would not have any significant impacts on GCN populations in the local area.

FIGURES



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axis

Studio **E** Architects

Key:

- Planning Application Boundary
- 500m Buffer
- GCN Ponds

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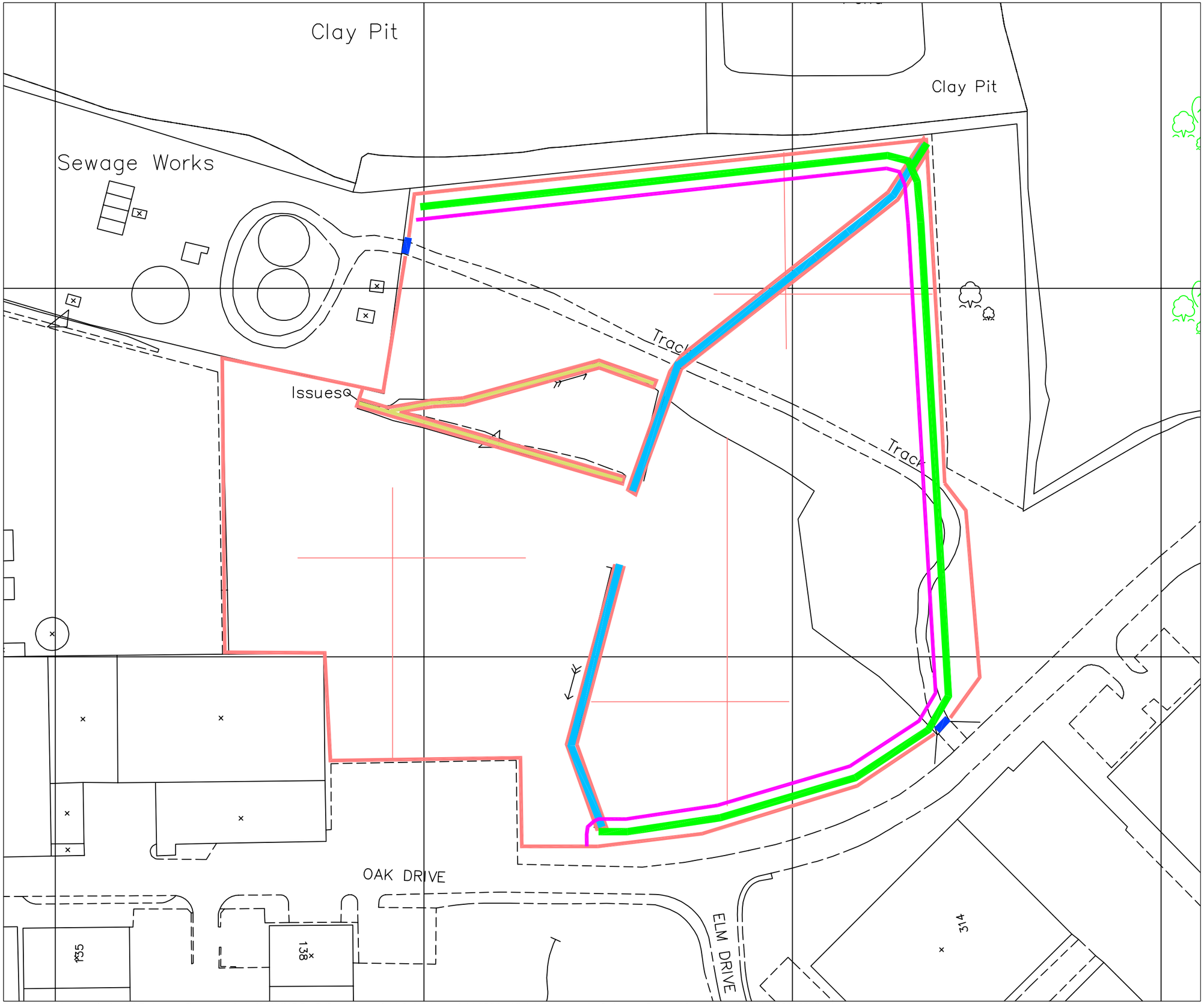
PROPOSED DEVELOPMENT OF A RENEWABLE ENERGY FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

Figure 1

Great Crested Newt Pond Locations

Scale	Date
1:5000@A3	July 2011



axis

Studio E Architects

- 1st Phase Newt fencing
- Drift fencing
- Newt grid
- Dry ditch
- Wet ditch
- Proposed new ditch
- 2nd Phase Newt fencing

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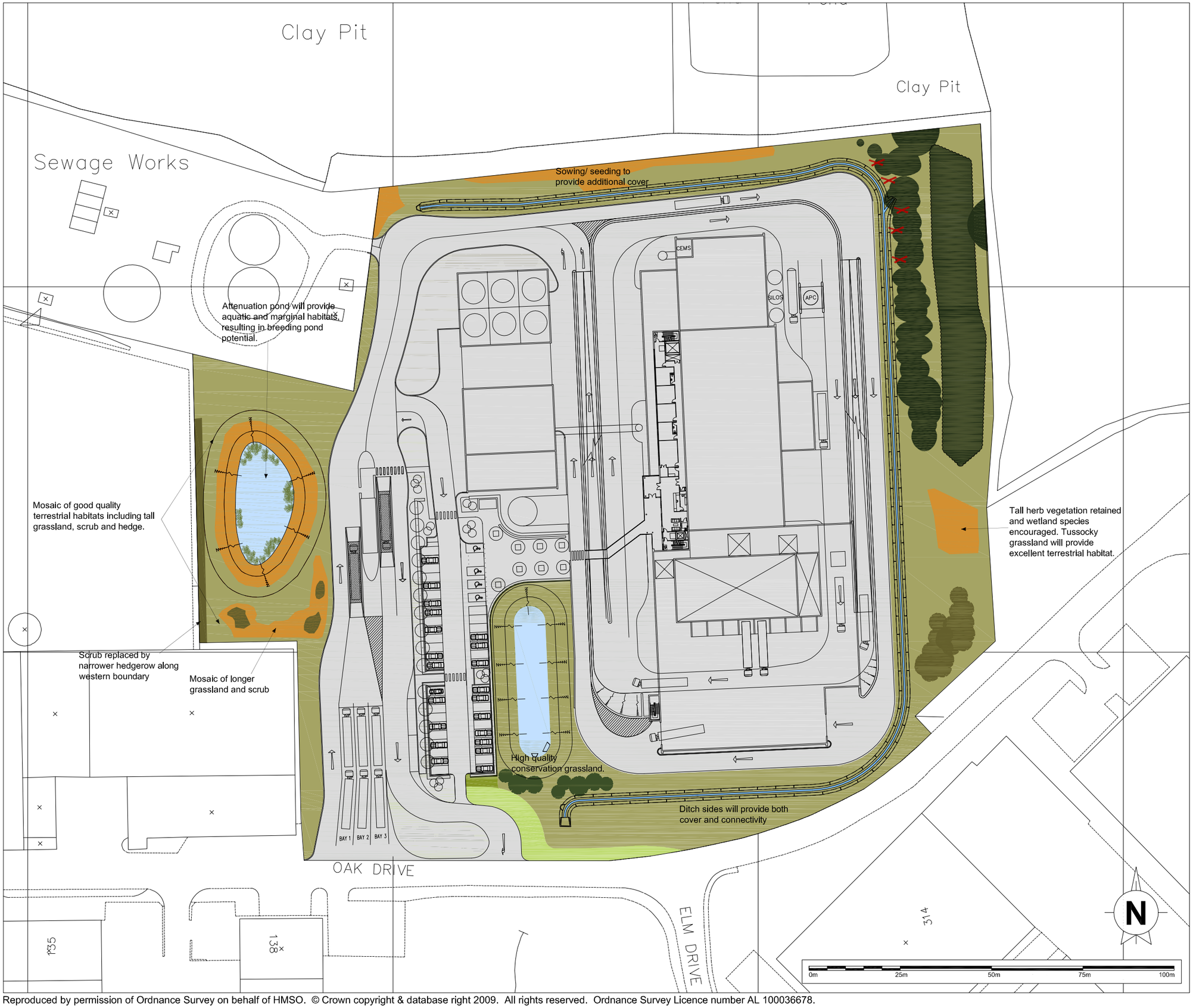
PROPOSED DEVELOPMENT OF A RENEWABLE ENERGY FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

Figure 2

Great Crested Newt Fencing Plan

Scale	Date
1:1000@A3	October 2011



axis

Studio E Architects

Key:

- Retained Existing Vegetation
- New Native Scrub
- Close Mown Grass
- Conservation Grassland
- Tussocky Grassland/ Tall Herbs
- Attenuation Ponds
- Emergent Planting within Ponds
- Diverted Watercourse
- Log Piles

NOTES:

1. Landscape proposals shown are indicative only.

2. All landscape works shall be subject to active management for a perlod of five years in order to ensure succesful establishment. Failed planting to be replaced in the next available growing season.

3. Species-rich grassland areas to be subject to a cutting regime intended to create a sward of varied height, so as to maximise biodiversity benefits.

4. Scrub area along the northern boundary to include retention of existing vegetation where practical.

5. Marginal planting to be cut on rotation (e.g. one-third cut every three years) following establishment period.

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PROPOSED DEVELOPMENT OF A RENEWABLE ENERGY FACILITY ON LAND AT HARTLEBURY TRADING ESTATE, HARTLEBURY, WORCESTERSHIRE

Figure 3

Great Crested Newt Landscape Mitigation Proposals

Scale	Date
1:1000@A3	October 2011