



## SUNNICA ENERGY FARM

Appendix 8K: Report on surveys for riparian mammals

Sunnica Limited

August 2020



## Quality information

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# 1. Introduction

1.1.1 In March 2019, AECOM (on behalf of Sunnica Limited) undertook a Preliminary Ecological Appraisal (PEA) (Ref 8K-1) for the proposed Sunnica Energy Farm (hereafter referred to as 'the Scheme'). This PEA identified the need for follow-up ecological surveys to determine the potential impacts of the Scheme on protected / notable species<sup>1</sup>, including riparian mammals, such as Water Vole *Arvicola amphibius* and Otter *Lutra lutra*. Therefore, AECOM was instructed to undertake surveys of the waterbodies and watercourses within the Scheme boundary the (Development Consent Order (DCO) Site (the Site)) and a 100m survey buffer from the DCO Site (referred to hereafter as the survey area) for their potential to support riparian mammals.

## 1.2 The Scheme

1.2.1 Sunnica Energy Farm is a new solar farm scheme that would connect to the national electricity transmission network. Sunnica will use ground mounted solar photovoltaic (PV) panel arrays to generate electricity energy from the sun and combine these with a Battery Energy Storage System (BESS). The Scheme will be connected to the national electricity transmission network by an underground cable.

1.2.2 The BESSs will consist of a compound and battery array to allow for the storage, importation and exportation of energy to the National Grid. Details of the design of the BESS elements, including their power and energy ratings, and their dimensions and appearance, are currently in development.

1.2.3 Supporting electrical infrastructure will include an on-site substation and on-site cabling between the different electrical elements of the Scheme. The generating equipment of the Scheme will be fenced and be protected via security measures such as CCTV and lighting. Inside the fenced areas, in addition to the generating equipment will be, internal access tracks, landscaping and habitat management and drainage.

1.2.4 The Scheme will be connected to the existing Burwell National Grid Substation, most likely using 132kV cables buried underground. The cables will run between Sunnica West and Sunnica East (Grid Connection Route A), and then on from Sunnica West to the Burwell National Grid Substation (Grid Connection Route B). Details of the cable route, dimensions of the cables, the depth and method of burial, and numbers of joints required are currently in development.

1.2.5 The Scheme qualifies as a Nationally Significant Infrastructure Project (NSIP) and will require a DCO from national government, due to its generating capacity.

1.2.6 The Scheme comprises the following key areas:

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<sup>1</sup> A notable species is a species with a conservation designation, but no legal protection.

- Solar Farm Sites:
  - Sunnica East Site A;
  - Sunnica East Site B;
  - Sunnica West Site A; and
  - Sunnica West Site B.
- associated electrical infrastructure for connection to the national transmission system comprise:
  - Grid Connection Route A (connecting the Sunnica East Site A with the Sunnica East Site B and then connecting to the Sunnica West Site A);
  - Grid Connection Route B (connecting the Sunnica West Site A and Sunnica West Site B and the Burwell National Grid Substation); and
  - Burwell National Grid Substation Extension.

1.2.7 **Figure 8K-1** in **Sub-Appendix 8K-1** shows the locations of these key areas.

## 1.3 Site Description

1.3.1 A summary description of the habitats within the Scheme boundary is provided below and a more detailed description of the habitats is provided in the PEA report (Ref 8K-1). The extent of the Scheme is shown in **Figure 8K-1**.

### *Sunnica East Site*

1.3.2 The Sunnica East is split into two sub-sites, one to the north of Freckenham (referred to as Sunnica East Site A) and the other to the south of Worlington (referred to as Sunnica East Site B). These two sites are approximately 1 km apart and are separated by agricultural fields. The Sunnica East Site A encompasses an area of approximately 231.7 ha and includes land within the county of Suffolk and Cambridgeshire. Sunnica East Site B lies within Suffolk and encompasses an area of approximately 323.1 ha (**Figure 8K-1**).

1.3.3 The landscape features within the Sunnica East Site A and Sunnica East Site B consist of arable agricultural fields interspersed with individual trees, hedgerows, linear tree belts, small woodland blocks, farm access tracks and local roads.

1.3.4 The landscape features immediately surrounding the Sunnica East Site A and Sunnica East Site B comprise small rural villages, including Worlington to the north, Barton Mills to the north-east, Red Lodge and Freckenham to the south and Isleham to the west. Industrial land uses adjoin the A11 to the south of the Sunnica East Site with an industrial installation of a 7.5 MW solar farm situated adjacent to the south-eastern extent of the Sunnica East Site and an anaerobic digestion (AD) plant located to the south of the Sunnica East Site.

### *Sunnica West Site*

1.3.5 The Sunnica West Site is located within the East Cambridgeshire District Council administrative area, approximately 3 km north east of Newmarket and 6.5 km east of Burwell.

- 1.3.6 Sunnica West is split into two sub-sites, one to the south-east (referred to as Sunnica West Site A) and the other to the north-west of Snailwell (referred to as Sunnica West Site B). These two sites are approximately 1 km apart, separated by agricultural fields and Chippenham Road. The Sunnica West Site A encompasses an area of approximately 485.5 ha and includes land to the east and west of the A11, consisting of agricultural fields bounded by trees, managed hedgerows, linear tree shelter belts, small woodland and copses and farm access tracks. Sunnica West Site B encompasses an area of approximately 68.8 ha and comprise of agricultural fields, grassland, small woodland and copses, farm access tracks and irrigation ditches fed by the River Snail which runs along the western and northern boundaries of the Site (**Figure 8K-1**).
- 1.3.7 The surrounding landscape comprises regularly shaped arable fields interspersed with managed hedgerows, tall shelter belts of trees and in the Chippenham Hall area, a parkland landscape with mature individual trees. Much of the area is also characterised by grazed paddocks, horse gallops and exercise tracks.

#### **Cable Route Corridors**

- 1.3.8 The Scheme will connect to the existing Burwell National Grid Substation via a cable route corridor. The cable route corridors under consideration are Grid Connection Route A, which connects the Sunnica East Site A with the Sunnica East Site B and then runs between the Sunnica West Site A and the Sunnica East Site B; and Grid Connection Route B, between the Sunnica West Site A and Sunnica West Site B and the Burwell National Grid Substation.

#### **Grid Connection Route A**

- 1.3.9 Grid Connection Route A connects the Sunnica East Site A with Sunnica East Site B and crosses two minor roads and arable farmland (**Figure 8K-1**).
- 1.3.10 Heading south from the Sunnica East Site B, the cable route corridor for Grid Connection Route A crosses the River Kennett, pastoral farmland, the Chippenham footpath 49/7 (a Public Right of Way (PRoW)) and B1085 (**Figure 8K-1**).

#### **Grid Connection Route B**

- 1.3.11 Heading east from the Burwell National Grid Substation, the cable route corridor for Grid Connection Route B crosses agricultural fields and a number of roads including the B1102 and A142. Grid Connection Route B also crosses a number of watercourses, including the Burwell Lode, New River, and the River Snail, as well as a number of drainage ditches associated with Burwell Fen, Little Fen, the Broads, and agricultural drains (**Figure 8K-1**).
- 1.3.12 The cable route corridor for Grid Connection Route B crosses a PRoW (footpath 92/19) before crossing the railway line and the A142 Newmarket / Fordham Road. The Route then runs alongside Snailwell Road and across the River Snail into Sunnica West Site B.

### ***Burwell National Grid Substation Extension***

- 1.3.13 The habitat within the Burwell National Grid Substation Extension (surrounding the existing substation) comprises small grassland fields to the east of the existing substation (bordered by hedgerows and mature trees) and arable land to the south and west of the existing substation (**Figure 8K-1**).

## **1.4 Scope of Report**

- 1.4.1 The objective of the riparian mammal survey, reported in this document, is to determine the presence or absence of Water Vole and Otter in areas of suitable habitat located within the survey area and identify any potential impacts of the Scheme on these species.
- 1.4.2 This report includes the following information:
- relevant legislation and policy;
  - methodologies for desk and field-based assessments undertaken between 2018 and 2020;
  - limitations to the surveys undertaken and any assumptions made as a result of incomplete data;
  - survey results; and
  - conclusions and further survey requirements.
- 1.4.3 This report is a technical appendix to accompany the Preliminary Environmental Information report, reporting on and evaluating the baseline data collected as of August 2020. An assessment of habitat quality for each of the watercourses and waterbodies identified will be presented in the DCO submission.

## 2. Legislative and Policy Framework

### 2.1 Legislative Framework

2.1.1 Water Vole and Otter are both fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) (Ref 8K-2). They are afforded protection under Section 9 parts 9 (1), (2), (4) and (5) of the Act, making it an offence to:

- intentionally kill, injure or take these species;
- possess or control live or dead individuals of these species or their derivatives;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for their shelter or protection;
- intentionally or recklessly disturb these species whilst occupying a structure or place of shelter used for that purpose;
- sell these species or offer or expose for sale or transport for sale; and
- publish or cause to be published any advertisement which conveys the buying or selling of these species.

2.1.2 Otter is also classified under the Habitats Directive (92/43/EEC) (Ref 8K-3) as a species requiring strict protection in Europe. In the UK this is enabled by The Conservation of Habitats and Species Regulations 2017 (as amended) (Ref 8K-4).

2.1.3 Otter is also included in the following international legislation / conventions:

- appendix II and IV of the Habitats Directive, Appendix II of the Bern Convention (Ref 8K-5) and Appendix I of CITES (Ref 8K-6); and
- globally threatened on the IUCN/WCMC Red Data List (Ref 8K-7).

### 2.2 Natural England Licencing

2.2.1 A licence is required from Natural England to intentionally damage or destroy burrows or displace Water Voles from their burrows for lawful development. Any operations that may impact upon Otters or their places of rest or shelter will require a Natural England European Protected Species (EPS) licence. There is no provision for licencing development or other construction activities under the Wildlife and Countryside Act. Such works should therefore be undertaken under a conservation licence. This licence requires demonstration of a conservation benefit for Water Vole and Otter and this benefit can be achieved by delivering a net gain in the amount of habitat available to the Water Vole and Otter population.

### 2.3 National and Local Planning Policy

2.3.1 National and local planning policy relevant to nature conservation is provided in detail in the PEA report (Ref 8K-1).



## 2.4 Priority Species

- 2.4.1 The Natural Environment and Rural Communities (NERC) list of Species of Principal Importance (Ref 8K-8) is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act (2006); under Section 40 every public authority (e.g. a local authority or local planning authority) must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.
- 2.4.2 In addition, with regard to those species on the list of Species of Principal Importance listed under Section 41 (S41), the Secretary of State must:
- “(a) take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or*
- (b) promote the taking by others of such steps.”*
- 2.4.3 The UK Biodiversity Action Plan (UKBAP) (Ref 8K-9) was launched in 1994 and established a framework and criteria for identifying species of conservation concern. From this list, action plans for priority species of conservation concern were published and have subsequently been succeeded by the UK Post-2010 Biodiversity Framework (July 2012) (Ref 8K-10). The UK Post 2010 Development Framework is relevant in the context of Section 40 of the Natural Environment and Rural Communities (NERC Act) 2006, meaning that Priority Species are material considerations in planning. These species are identified as those of conservation concern due to their rarity or a declining population trend.
- 2.4.4 Water Vole and Otter are included as a priority species under Section 41 of the NERC Act 2006.

## 2.5 Local Biodiversity Action Plan

- 2.5.1 The Scheme is located within two counties, Cambridgeshire and Suffolk. The Cambridgeshire and Peterborough Biodiversity Action Plan (Ref 8K-11) and Suffolk Biodiversity Action Plan (Ref 8K-12) provides the local nature conservation strategy for identifying threats to species within these counties and sets out the actions necessary to conserve them. The Biodiversity Action Plans provides context to inform identification of threatened / uncommon species within the district / county. The plans also identify priorities for conservation and enhancement but confers no particular legislative or policy protection to the species identified, however in some cases this is provided through related legislation and local planning policy.
- 2.5.2 Water Vole and Otter are both listed as priority species on the Cambridgeshire and Peterborough Biodiversity Action Plan (Ref 8K-11) and on the Suffolk Biodiversity Action Plan (Ref 8K-12).

## 3. Methods

### 3.1 Desk Study

- 3.1.1 A desk study was undertaken in December 2018 through Cambridgeshire & Peterborough Environmental Records Centre (CPERC) and Suffolk Biodiversity Information Service (SBIS), to obtain records of Water Vole and Otter within the last ten years and within a 2 km radius of the Scheme boundary.
- 3.1.2 Only records up to ten years old were considered within the assessment, as any records older than ten years are unlikely to be still representative of either species' presence in the local area.

### 3.2 Field Survey

- 3.2.1 The Water Vole and Otter surveys were carried out on 9th May; 5th July and 23rd August 2019; and 27th May and 1st July 2020 by experienced AECOM Ecologists.

#### *Survey Area*

- 3.2.2 Aerial photos and the PEA survey (Ref 8K-1) were used to refine survey areas and scope out watercourses and waterbodies from further surveys for riparian mammals, based on the quality of such habitats and potential for riparian mammals to occur within them. Watercourses or waterbodies that were dry, no longer present, or were in heavy agricultural use, with no marginal vegetation, were identified as not being suitable for riparian mammals.
- 3.2.3 In total, there were 15 watercourses and two waterbodies (see **Table 8K-1**) that were potentially suitable for Water Vole and Otter within the survey area. All watercourses and waterbodies that were surveyed for riparian mammal surveys are shown in **Figure 8K-2** in **Sub-Appendix A**.

**Table 8K-1 Watercourses and waterbodies within the survey area**

<i>Scheme Area</i>	<i>Watercourse reference (see Figure 8K-2).</i>	<i>Surveyed (Yes or No) and reasons for exclusion if no survey</i>
Sunnica East Site A	Lee Brook, 01, 01a, 02, 03, 04, 05 and 06	Yes, all
Sunnica East Site B	WB4	Yes
Grid Connection Route A	River Kennet	No – no access
Sunnica West Site A	WB12	Yes
Sunnica West Site B	River Snail, 27, 27a, 08, 13	Yes, all
Grid Connection Route B	Catchwater Drain	Yes

<i>Scheme Area</i>	<i>Watercourse reference (see Figure 8K-2).</i>	<i>Surveyed (Yes or No) and reasons for exclusion if no survey</i>
Burwell National Grid Substation Extension	Network of ditches on site and surrounding	Yes

### **Water Vole Survey**

3.2.4 Water Voles typically inhabit slow-moving streams, canals, ditches, dykes and rivers, feeding mostly on waterside vegetation. They are active in daylight hours and leave several indications of their presence and these signs can be used to identify the presence of Water Vole and, by quantifying the presence of certain signs, can be used to estimate the population size.

3.2.5 The Water Vole survey involved identification of evidence of Water Vole activity up to 5m from the bank of the 15 watercourses and waterbodies surveyed. Field surveys were based on the standard methodologies as described by Strachan et al. (2011) (Ref 8K-13) and Dean et al. (2016) (Ref 8K-14). Field signs searched for included:

- latrine sites – distinct piles of Water Vole droppings found near burrows, at the ranges of territorial boundaries and where the animals enter and leave the water;
- feeding stations – areas with distinct neat piles of chewed lengths of vegetation along pathways or haul out platforms along the water’s edge;
- burrows – burrow entrances are typically wider than high with a diameter between 4 and 8 cm. Burrow entrances are generally located at the water’s edge;
- lawns – short grazed areas at the entrances to burrows;
- prints – identifiable prints in soft margins of the watercourse; and
- runways – low tunnels that are pushed through the vegetation and often leading to burrows or feeding stations.

3.2.6 Any information gathered on Water Vole signs were used to calculate and estimate Water Vole population and, or activity within those specific waterbodies or watercourse. The presence or absence of American Mink *Mustela vison* and Brown Rat *Rattus norvegicus* was also recorded if the species or signs of their presence were noted.

3.2.7 It is not possible to make robust estimates of the number of Water Voles from latrine counts, but latrines do provide an indication of activity suitable for assessment of impacts and designing mitigation (Ref 8K-14).

### **Otter Survey**

3.2.8 The survey method aimed to determine the presence or likely absence of Otter on those waterbodies and watercourses surveyed. The methodology used was based on the guidance in the New Rivers and Wildlife Handbook (RSPB, NRA & RSNC, 1994) (Ref 8K-15); the Environment Agency’s Fifth Otter Survey of England 2009-2010 (Ref 8K-16) and ‘Monitoring the Otter’ (Ref 8K-17).

3.2.9 Due to the low likelihood of making an actual observation of Otter, the survey concentrated on locating field signs indicating Otter presence or use within the survey area. Such field signs include:

- spraints – characteristic sweet-smelling, black tar-like (where fresh/relatively recent *i.e.* within a few weeks) or grey crumbly (when old) faecal deposits usually containing fish scales, bones and occasionally invertebrate exoskeleton and bird feathers;
- footprints – in good substrate typically asymmetrical and showing five toes arched around a large pad and, depending on substrate, webbing and claw marks. Poorer, generally coarser substrates do not often enable the identification of otter footprints. Additional signs of Otter presence may occur, although without additional evidence is not usually conclusive proof of current Otter presence;
- feeding remains – feeding remains may include partially eaten fish, frogs, piles of mussel shells or crayfish remains;
- slides/ haul-outs – routes into and out of the water, which are usually associated with terrestrial routes such as short cuts around meanders or along traditionally used otter paths/routes;
- couches/ hovers – above ground resting places. Usually associated with cover such as dense scrub, rushes or reed, flood debris or fallen trees. Many couches are rarely used whilst others more so. Difficult to prove use without radio tracking; and
- holts – below ground resting site usually associated with sprainting. Sometimes used with greater frequency than couches and can be important for breeding (natal holts) where other signs are usually absent. Notoriously difficult to find or prove without radio tracking.

### 3.3 Limitations

#### *Desk Study*

3.3.1 The aim of a desk study is to help characterise the baseline context of the Site and provide valuable background information that would not be captured by site surveys alone. Information obtained during the course of a desk study was dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular species does not necessarily mean that the species does not occur in the study area. Likewise, the presence of records for particular species does not automatically mean that these still occurred within the area of interest or were relevant in the context of the Scheme.

#### *Field Survey*

3.3.2 No access was granted for the majority of watercourses within the Grid Connection Routes and therefore no riparian mammal surveys were carried out within these areas. Whilst this is considered to be a significant limitation on the survey results, it is acknowledged that Water Vole and Otter are likely to be present within watercourses within the Grid Connection Route and consideration of this will be taken forward when designing the mitigation for

the construction of the Scheme in consideration of legal compliance to avoid killing or injuring any riparian mammals that may be present.

- 3.3.3 To date, some watercourses and waterbodies have only been surveyed on one occasion, rather than the recommended two surveys to determine presence, or absence of Water Vole. Any such areas will be surveyed in autumn 2020 and the survey results will be included as part of the DCO submission.
- 3.3.4 Watercourses 04, 05 and 06 were only surveyed once in spring 2019, rather than the recommended two surveys as there was no access to these areas, which are outside of the Site boundary, beyond spring 2019. However, the results of the survey in spring 2019 have been used to inform on species presence or absence in these areas and a precautionary approach, assuming presence, will be taken where the habitat quality is considered as optimal for Water Vole or Otter.
- 3.3.5 It was not possible to survey the entire margins of Lee Brook and Waterbody 4 for Water Vole and Otter, due to dense vegetation, high water levels and steep banks. However, the habitat quality of these areas and presence of both species in adjacent habitats and stretches of the watercourses has been used to inform on species presence or absence in these areas and a precautionary approach, assuming presence, will be taken where the habitat quality is considered as optimal for Water Vole or Otter.

## 4. Results and Evaluation

### 4.1 Desk Study

- 4.1.1 The data search returned 92 records of Water Vole and 24 records of Otter within 2 km of the Site boundary and within the preceding ten years from the request date.
- 4.1.2 The closest Water Vole record to the Site was returned 275 m from Sunnica East Site A. The closest Otter record was recorded approximately 125 m from the Burwell National Grid Substation Extension.

### 4.2 Field Survey

- 4.2.1 Fourteen watercourses and two waterbodies were surveyed for Water Vole and Otter presence or absence in 2019 and, or, 2020. A summary of the results of these surveys, as of August 2020, are presented in in **Table 8K-2**.

**Table 8K-2 Results of Water Vole and Otter Surveys carried out within the survey area**

<i>Scheme Area</i>	<i>Watercourse or waterbody reference (see Figure 8K-2)</i>	<i>Summary of Results (as of August 2020)</i>
Sunnica East Site A	01	Water Vole latrines, pathways, feeding remains and lawns and Otter spraints
	01a	Water Vole latrines, burrows, pathways and feeding remains. No signs of Otter.
	02	Water Vole latrines, pathways, feeding remains and lawns and Otter spraints.
	03	Water Vole latrines, burrows, pathways and feeding remains. Remains of Signal Crayfish <i>Pacifastacus leniusculus</i> , likely Otter feeding remains.
	04	Water Vole burrows and footprints identified. Possible Otter / Mink spraint.
	05	Water Vole burrows, feeding remains and lawns present. Otter footprint and runs.
	06	No Water Vole Signs. Possible Otter runs identified.
Sunnica West Site A	WB12	No signs of Water Vole or Otter
Sunnica West Site B	27	5 Water Vole burrows, 15 Water Vole latrines and 34 feeding remains. No signs of Otter.
	27a	Water Vole feeding remains in 2019. No signs of Otter. Dry in 2020
	13	Dry ditch

<i>Scheme Area</i>	<i>Watercourse or waterbody reference (see Figure 8K-2)</i>	<i>Summary of Results (as of August 2020)</i>
	08	Water Vole feeding remains. No signs of Otter.
	River Snail	Water Vole latrines and feeding remains. No signs of Otter
Grid Connection Route B	Catch Water drain	Six Water Vole burrows, seven Water Vole latrines and 10 feeding remains to the east of First Drove road and one Water Vole burrow, two latrines and three feeding remains to the west of First Drove road. No sign of Otter
Burwell National Grid Substation Extension	On site and surrounding	No signs of Water Vole or Otter in any watercourses within the Burwell National Grid Substation Extension area or adjacent habitat

4.2.2 Possible signs of Mink were found within Watercourse 04. No signs of Brown Rat were recorded within the watercourses.

### **Sunnica East Sites A and B**

4.2.3 In Sunnica East Site A, Water Vole were found to be present in the following watercourses:

- 01, 01a, 02, 03, 04 and 05.

4.2.4 Whilst the full extent of Lee Brook was not surveyed for evidence of Water Vole, the habitat quality in the Lee Brook is suitable to support this species. Furthermore, the evidence of Water Vole in connecting ditches to the Lee Brook (02 and 04) would suggest that Water Vole is also present along the full length of the Lee Brook.

4.2.5 No evidence of Water Vole was found in the surveyed margins of Waterbody 4 (Sunnica East Site B). However, both Otter and Water Vole could be present within this large waterbody.

4.2.6 Otter was found to be present in the Sunnica East Site, with evidence (either spraints, footprints, feeding remains and, or runs) found in watercourses 04, 05 and 06; and in watercourses 01 and 02.

4.2.7 No Otter holts were recorded within any of the watercourses surveyed at Sunnica East Site A and Site B.

### **Sunnica West Site A**

4.2.8 No evidence of Water Vole or Otter was recorded in Waterbody 12.

### **Sunnica West Site B**

4.2.9 Evidence of Water Vole (five burrows, 15 latrines and 34 feeding remains) were recorded within Watercourse 27 in May 2020 (see **Figure 8K-2**).

4.2.10 During Water Vole surveys in 2020, one Water Vole feeding remain was found in Watercourse 08.

4.2.11 No evidence of Otter, including Otter holts, was recorded in any of the other watercourses surveyed.

***Grid Connection Route B***

4.2.12 Evidence of Water Vole (seven burrows, nine latrines and 13 feeding remains) were recorded within CatchWater Drain in May 2020 (see **Figure 8K-2**).

4.2.13 No evidence of Otter, including Otter holts, was recorded in any of the other watercourses surveyed.

***Burwell National Grid Substation Extension***

4.2.14 Water Vole was not recorded in any of the other watercourses surveyed within the Burwell Nation Grid Substation Extension.

4.2.15 Otter was not recorded in any of the other watercourses surveyed. No Otter holts were recorded within any of the watercourses surveyed.



## 5. Conclusions

- 5.1.1 The riparian mammal surveys undertaken in 2019 and 2020 identified the presence of Water Vole within the DCO Site. Specifically, Water Vole was located:
- Sunnica East Site A - watercourses: 01, 01a, 02, 03, 04, 05 and assumed presence along full extent of Lee Brook;
  - Sunnica West Site B – watercourses 08, 27 and 27a; and
  - Grid Connection Route B – CatchWater Drain.
- 5.1.2 Water Vole is likely to be present in Sunnica East Site B, in Waterbody 04.
- 5.1.3 Otter was found to be present in:
- Sunnica East Site A - watercourses 01, 02, 03, 04, 05 and 06.
- 5.1.4 Otter is likely to be present in Sunnica East Site B, in Waterbody 04.
- 5.1.5 Surveys for riparian mammals will be required within the cable route corridor, once access has been granted. Surveys are ongoing in other areas and will be reported in the DCO submission.

## 6. References

- Ref 8K-1 AECOM, 2020. Sunnica Energy Farm Preliminary Ecological Appraisal.
- Ref 8K-2 Anon, 1981. Wildlife & Countryside Act 1981. HMSO.
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- Ref 8K-14 Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.
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- Ref 8K-17 Chanin, P., (2003). Ecology of European Otter, Conserving Natura 2000 Rivers. Ecology. Series No.10 English Nature.

# Sub-Appendix A Figures

## Figure 8K-1 DCO Site Boundary

56000

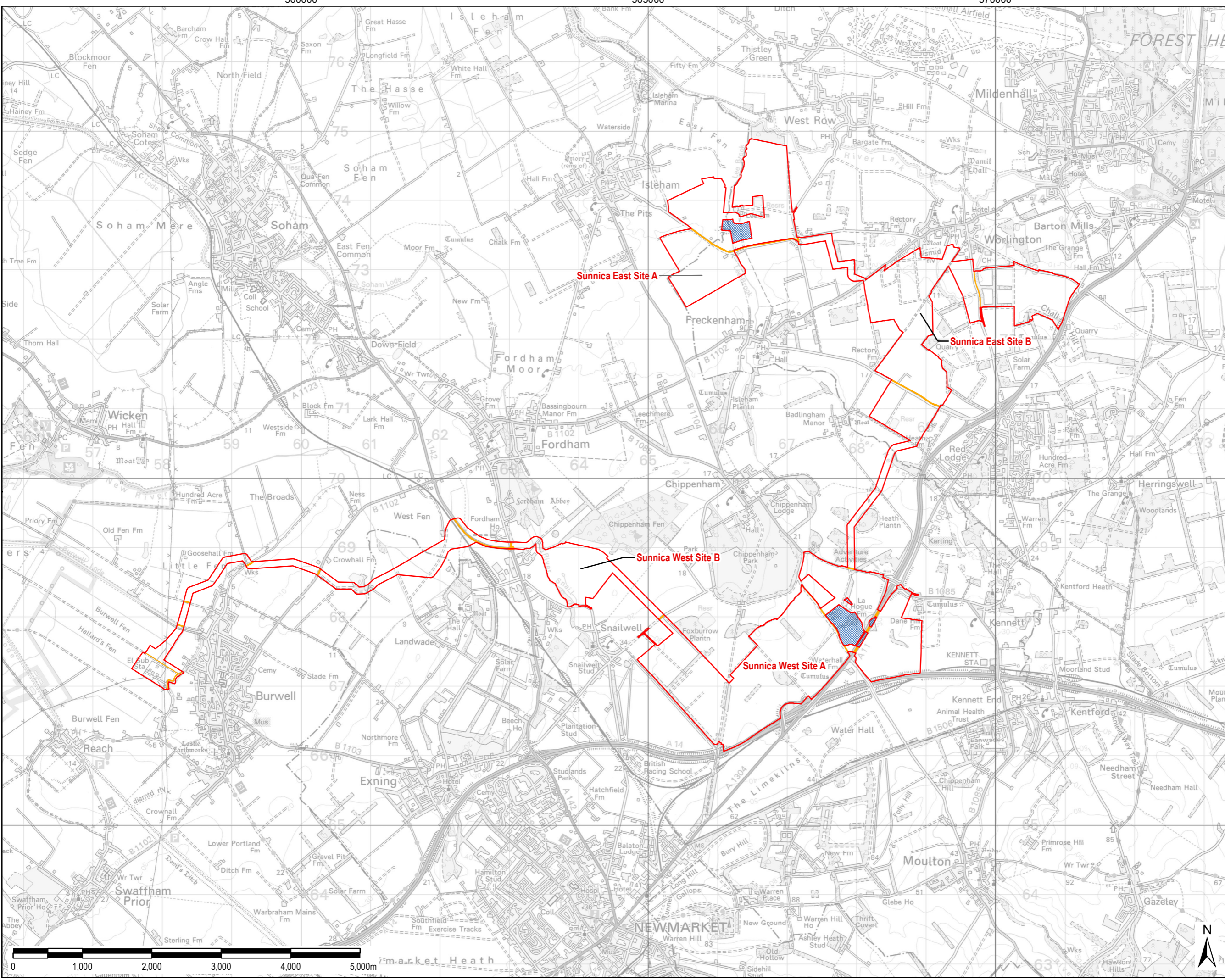
56500

57000

275000

270000

265000



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- LEGEND**
- Scheme Boundary
  - Not Included in the DCO Site
  - Public Highway within Scheme

**NOTE:**  
Public highways run through the Sunnica East Site, which are not part of the site boundary. These have been digitised based on the 1:1250 scale OS Mastermap.

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**SCHEME BOUNDARY**

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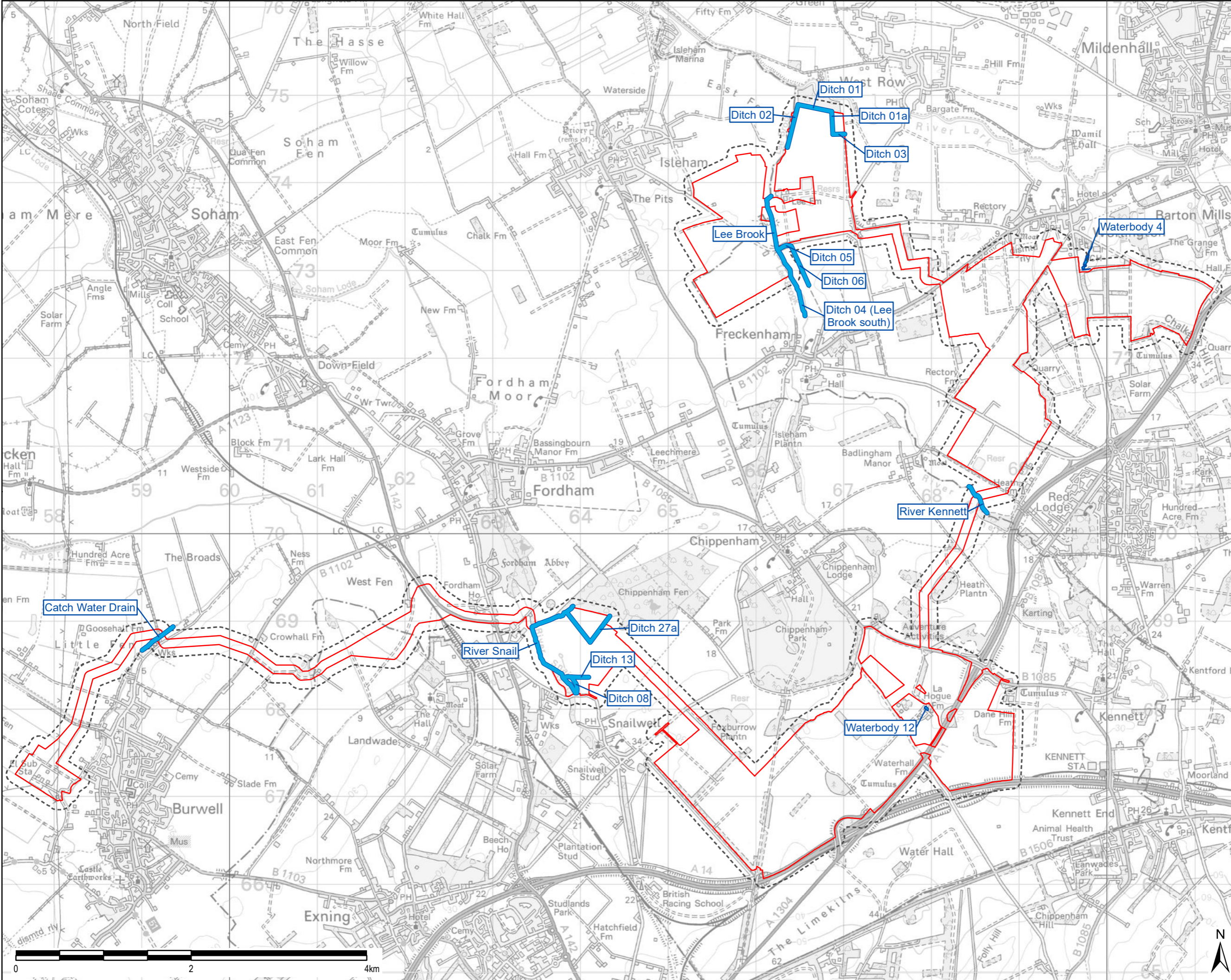
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**Figure 8K-1**

File Name: C:\Users\Anna.Dillio\AECOM Directory\Sunnica Energy Farm - GIS - General\Layout\PEIR\Chapter\_2\_Site\_Description\_Surrounds\200902\_SunnicaEnergyFarm\_Figure2\_1\_SchemeBoundary.mxd

## Figure 8K-2 Waterbodies Surveyed for Water Vole and Otter

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- LEGEND**
- DCO Boundary
  - 100m scheme buffer
  - Waterbodies surveyed for riparian mammals



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Client SUNNICA LTD



Drawing Title

**LOCATIONS OF WATERBODIES AND WATERCOURSES SURVEYED FOR RIPARIAN MAMMALS**

Drawn AD	Checked NG	Approved CLB	Date 01/09/2020
AECOM Internal Project No. 60589004		Scale @ A3 1:40,000	

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Drawing Number  
**FIGURE 8K-2**

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