The Sizewell C Project

9.93 Sizewell C Green Rail Route Green Crested Newt Licence Application

Revision:	1.0
Applicable Regulation:	Regulation 5(2)(q)
PINS Reference Number:	EN010012

September 2021

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

SizewellC
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EDF CGN

Great Crested Newt Method Statement for EPS licence application

NATURAL ENGLAND

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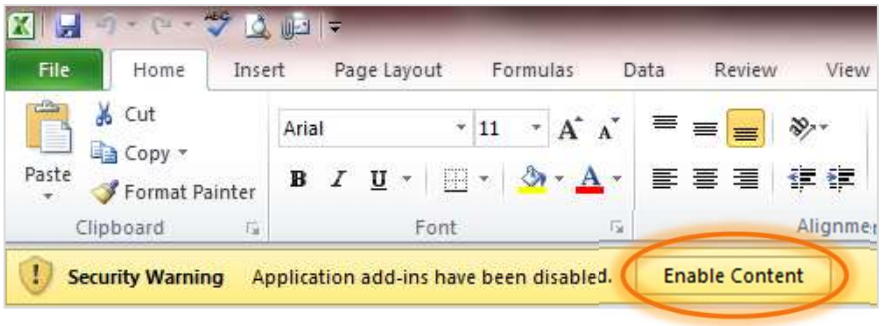

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GCN Method Statement WML-A14-2 (Version April 2020)

The Conservation of Habitats and Species Regulations 2017 (as amended)
Method Statement to support application for licence under Regulation 55(2)(e) in respect of Great crested newts *Triturus cristatus*

Section A.

Site/project name: Sizewell C - Green Rail Route

Applicant (developer) name: Sizewell C Co.

Named Ecologist:

Is this application for a new Method Statement (not previously licensed), a modification to a licensed Method Statement (non-annexed only), or a re-submission following a "Further Information Request" notice?

New method statement; not previously licensed

If a re-submission, please give previous application reference
(eg EPSL, EPSM 20XX-3142A, 20XX XXX EPS MIT):

N/A

NB: For re-submissions and modifications (non-annexed) the Method Statement should be re-submitted in its entirety, including all maps, appendices, reports, etc. You must clearly show any changes from the previously submitted version by underlining relevant text (CTRL-U) or by changing the font colour.

In undertaking this mitigation project, I agree to comply with good practice as set out in the *Great crested newt mitigation guidelines (GCNMG)* (English Nature, 2001). [Note: if you do not check the box to comply with good practice your application will almost certainly be rejected. See comments on *Technical mitigation issues* in Instructions]

☑ Yes

NB: Please be concise with your information and descriptions provided within your Method

Section B Introduction

You have provided a brief description of proposal in the application form, please provide the following additional background and site information.

Relationship with impacts due to other nearby development

B1.1 Is this application part of a phased/multi-plot development? See: Advice on Masterplan guidance
For example, is it part of a phased mineral extraction, housing development or one plot in a multiple ownership residential scheme?..... ☑ Yes ☐ No If No, go to Question B1.2

If yes, how many great crested newt (GCN) licences will be required? 3

What licence application phase is this? e.g. licence application 1 of 3. 3 of 3

Note: sections in this Method Statement on impact assessment and mitigation measures must explicitly relate to impacts only from the development currently proposed.

Your separate master plan document is expected to take due regard of the overall project. This is important to ensure that in-combination effects are considered, and mitigation measures across the whole project are both sufficient and coherent.

Confirm you provided:

- A Separate Masterplan document..... ☑ Yes ☐ No
- Separate Masterplan figures..... ☑ Yes ☐ No
- A Habitat Management and Maintenance Plan?... ☑ Yes ☐ No

If you have selected **'No'** to any of the above questions, please explain why as these are considered necessary and important documents for determination of your application. Not to provide them is likely to result in delays to being able to determine your application whilst we come back to you for this information.

The Sizewell C development consistes of a Main Development Site (MDS) and 8 Associated Development Sites (AD Sites), shown on Figure B1.1. GCN surveys have been undertaken across the MDS and at each of the AD Sites. Based on the survey results, GCN have been scoped out from the MDS, Yoxford roundabout, Southern Park and Ride, Two Village Bypass and Freight Management Facility. GCN licence applications have been developed for the three AD Sites where surveys have suggested that the development may impact GCN populations. These sites are referred to as Northern Park and Ride, Sizewell Link Road and Green Rail Route (to which this licence applies).

There is no Seperate Masterplan document or Habitat Management and Maintenance Plan as no in-combination effects are anticipated between these developments. Northern Park and Ride is 1.5km from Sizewell Link Road and 6.7km from Green Rail Route (at their closest points) therefore no overlap in GCN population between Northern Park and Ride and the other two schemes is likely. Sizewell Link Road is 980m from Green Rail Route (at their closest points) therefore in-comination effects have been ruled out.

Please provide below a brief summary of how the current application relates to the larger project.

The current application comprises a rail extention route from the Saxmundham to Leiston branch line to the MDS, as shown on Figure B1.1. Green Rail Route lies to the west of the MDS and to the south of Sizewell Link Road. The other AD Sites are situated to the south-west, the closest being Two Village Bypass 6km at their closest points.

For this method statement also include a map FIG. B1.1 - see Sum & Figs. tab.

B1.2 Apart from any mentioned in B1.1, are there other GCN mitigation projects which might affect the target population? You must make reasonable efforts to establish this, including discussions with your client and the LPA. ☑ Yes ☐ No

Notes: Include any projects within 100m of site boundary, and any further away that are likely to seriously impact on the population at the site. Include current projects, any from the last 5 years, and any planned to happen within the next 5 years.

If yes, provide summary information here, including site names, dates, and - if known - licence reference No.s

A review of the planning applications viewable on the East Suffolk Council planning portal found no evidence of forthcoming projects taking place within the next 5 years that have the potential to impact the same GCN population as covered within this application.

A review of European Protected Species applications was undertaken on MAGIC and the nearest granted GCN licence was situated 3.5km south west of the site (ref: EPSM2013-5525), dated between 2013 and 2017. This licence involved the destruction of a GCN breeding site. There are a number of main roads between the licenced site and the site that this application refers to, it is therefore unlikely that the works set out within this licence will impact the same population of GCN.

A further three historic applications (references: EPSM2009-1044, EPSM2009-1450 and EPSM2012-460) dated between 2009 and 2014 were discovered over 6km of the site. These licences also involved the destruction of GCN resting places. Due to their distance from the development site, it is considered unlikely that there are other GCN mitigation projects that may affect the target population for this application."

NB: Locations of other GCN sites must be shown on FIG. B1.2 - see Sum & Figs. tab

Next Section

: Sizewell C - Green Rail Route

C Survey and site assessment

C1 Pre-existing survey information on GCN at survey site (eg previous to the survey data used to inform this application)

C1.1 Indicate conclusion on newts at development site from pre-existing survey data, if any. You should make reasonable efforts to find this data, including consulting the NBN Gateway and Local Records Centres.

Pre-existing survey confirms great crested newt presence

C1.2 Age of pre-existing survey data (years between now and latest survey)

Between 1 and 3 years

C1.3 Source(s) of pre-existing survey data; also include a copy or summary in an appendix

Pre-existing data of the ponds surrounding the site is included within Sizewell C Environmental Statement Volume 9 Appendix 7A which includes desk study data and survey data from Amec (2011), and Arcadis (2015 and 2019).

C2 Status of GCNs in the local area

C2.1 Local status (within approx 10km). Note: often there will be only patchy data on newt distribution, but you may feel able to assign one of the categories below when combined with pond density figures for the local area. Note: this is only a rough measure.

Frequent - known or likely to occur at c. >5 ponds per square km

Further information on local status

Local biological record centre search (taken from Environmental Statement for the proposed scheme) and MAGIC search.
643 records of GCN within 10km on NBN. This equates to ~6 record per km2. There is a high density of ponds within the 10km area surrounding the site and, indeed, Suffolk as a county holds a very high density of ponds. Nevertheless, analysis of 900 of Suffolk's 22,000 estimated ponds between 2004 to 2007 (Bullion, 2009), revealed that whilst over 14% of the ponds surveyed contained GCNs, large and established populations were only recorded at a small number of ponds (sunny, well-vegetated ponds with good surrounding habitat), and the majority of Suffolk's ponds were found to be unsuitable for GCN (due to heavy shade and organic matter, and/or the presence of predatory fish or damagingly high duck populations).

C3 Recent survey (to inform this mitigation project)

C3.1 Objective of survey

To assess population size class of great crested newts in specified pond(s)

C3.2 Survey area and justification

- Clearly state which areas were surveyed…
  If *Other*, please provide comments below:

Survey Area: ○ 250m ● 500m ○ Other

Ponds on site and within 500m, where access was available

- Select which ponds were surveyed……
  If *Other*, please provide comments below:

Ponds Surveyed: ○ All Ponds ● Some Ponds ○ Other

Where access was available shown on Figures C3.2a and C3.2b

- Provide justification for the area surveyed (whether 250m or 500m of the site)

A 500m survey area was adopted in accordance with Natural England's recommended buffer area for surveying ponds for GCN.

NB: to accompany the survey section you must identify the survey area and all ponds within that area, indicating those surveyed from those not surveyed, on FIG. C3.2(a) and the 250m and 500m radii limits around the development boundary. An aerial photograph of the site and surrounding area is also useful.
Please label as FIG. C3.2(b) if included. See Sum & Figs. tab.

C3.3 Habitat description: waterbodies

C3.3i Briefly describe all waterbodies within your survey area. Please provide only a short text description, e.g. "Pond 1is a small garden pond in the northwest of the site. Pond 2 is a marl pit pond in the centre of the site". Includepond references (names). Do not include Habitat Suitability Index (HSI) data here; this is to be added later in the Method Statement.

Pond ref	Description
P004	Garden pond to north of boundary
P030	woodland pond to east of boundary
P055	Garden pond to north-west of boundary
P002	Farm pond to north of boundary
P003	Dry woodland pond to north of boundary
P006	Dry Pond to north of boundary
P016	Large lagoon and reedbed
P017	Large farm pond to east of boundary
P018	Pond within hedgerow to east of boundary
P023	Farm pond to south-west of boundary

Add further records to the Additional Records tab.

C3.3.ii Waterbodies: distance from development site boundary and other ponds.
Provide distance (to the nearest 10m) from the development site boundary for each pond within the survey area. If pond is on site, enter "0". If a pond on site or close to the development was not surveyed for GCNs, still give the distance, and provide reason for not surveying.

Pond ref	Distance (m)	Surveyed or not?	If selected 'No- other reason' explain below
P004	280	Yes	
P030	124	Yes	
P055	408	Yes	
P002	390	Yes	
P003	407	Yes	
P006	440	Yes	
P016	370	Yes	
P017	340	No - access permission denied	
P018	345	No - access permission denied	
P023	233	Yes	

Add more records here Additional records page

C3.4 Habitat description: terrestrial habitats.

What is the total area (ha) of the development site? 23.9

- Please provide a broad breakdown (ha and habitat type) of terrestrial habitat present on the development site. **Note** that this total should be the same as the area included above.
- Also, briefly describe the terrestrial habitats present on adjacent areas likely to support GCNs. If there is no defined boundary to development site, please explain the habitats affected by the works and within the surrounding area.
- The habitats described in this section should be clearly shown and identified on Figure C3.2(a)

The site comprised predominantly intensively managed arable fields, separated by a combination of fences and hedgerows some of which were species-rich.
Other habitats present adjacent to the site included a number of woodland blocks comprising broadleaved semi-natural woodland, improved grassland fields and gardens.
No ponds were recorded within the site boundary however there were 20 ponds recorded within 500m of the site.
Being dominated by arable fields, the majority of the site comprises low value terrestrial GCN habitat that does not offer resting opportunities. However the hedgerows within the site offer some sub-optimal habitat while the woodlands and gardens adjacent to the site offer small areas of suitable terrestrial habitat.

NB: Photographs showing the habitats on site should be provided - FIG. C3.4
see Sum & Figs. tab

C3.5 Waterbodies: quantitative assessment.

A Habitat Suitability Index (HSI) score should be calculated for each pond that would be subject to activities likely to result in adverse impacts on the local GCN population. See guidance in the Instructions section (Survey data and HSI tabs). It is not required for ponds subject to low impacts, though can be entered if you wish; this may be useful, for example, to provide objective evidence that the population affected is likely to be small.

In the boxes below, enter the Pond reference (or name) then the SI scores. The spreadsheet will automatically calculate the HSI. It is expected that, for each HSI, all ten SI scores should be entered in most cases. If you did not calculate a particular SI score, leave blank (**do not** enter "0"). If more than two variables are missing, the HSI should be treated as provisional and you should comment on this below. If more than 10 waterbodies need HSI scores, include additional information in an appendix, in the same format as below.

Date HSI assessment undertaken	10/06/2020	10/06/2021	16/04/2021	10/06/2021	
Pond ref	P004	P030	P055	P002	P003
SI1 - Location	1	1	1	1	
SI2 - Pond area	0.4	0.95	0.2	0.2	
SI3 - Pond drying	1	0.9	0.5	1	
SI4 - Water quality	0.67	1	0.67	0.33	
SI4 - Shade	1	1	0.7	0.4	
SI6 - Fowl	1	0.67	1	1	
SI7 - Fish	1	0.67	1	1	
SI8 - Ponds	1	0.93	1	1	
SI9 - Terr'l habitat	0.67	0.33	0.67	0.33	
SI10 - Macrophytes	0.8	0.35	0.45	0.35	
HSI	0.82	0.73	0.65	0.56	

Date HSI assessment undertaken	15/04/2021				15/04/2021
Pond ref	P006	P016	P017	P018	P023
SI1 - Location	1				1
SI2 - Pond area	0.1				0.87
SI3 - Pond drying	0.1				0.9
SI4 - Water quality	0.01				0.01
SI4 - Shade	0.4				1
SI6 - Fowl	1				0.67
SI7 - Fish	1				0.67
SI8 - Ponds	1				0.85
SI9 - Terr'l habitat	0.67				0.33
SI10 - Macrophytes	0.3				0.3
HSI	0.31				0.44

Add more records here Additional records page

Please comment and describe any constraints on HSI data if appropriate. If ponds did not under go a HSI assessment please also explain why:

Access was not granted to P017, P018, P029 and P230
P026 was within a live building site so was deemed unsafe to survey
P028 was scoped out on the basis that it was a swimming pool and therefore unsuitable for GCN
P209 was recorded as defunct
P016 was sampled for GCN eDNA in 2020 by a different organistation. The results of the eDNA survey were shared however HSI information was not given

C4 Amphibian survey

C4.1 Terrestrial amphibian survey

Was a terrestrial survey undertaken?..... ■ Yes ☐ No

If no, proceed to next section.

Objective of terrestrial survey:

Which area was surveyed for terrestrial amphibians?

Explain terrestrial survey area(s). Also mark on map, and give map reference here:

Applicants must ensure they retain or have access to the records set out in the technical advice note, and used to support the licence application, for at least 12 months after the first licence return (dates for which will be set out in any licence granted).

Fill in the boxes to show methods, timing, effort and results:

Survey start date: Survey end date:

Method:	Refuge search	Pitfall	Night search	Other**
Effort				
No. of newts*				
Total newts:	0			

Metamorphs and immatures as percentage of total catch:

*for this section, "no. of newts" refers more accurately to "no. of newt observations", as individuals are not distinguished in typical surveys. If you have individual newt data, state below.

Comments on results, e.g. ** if an 'other' method was used please explain what this was, favoured areas, migration route, juvenile dispersal route. Also mark observations and locations newts found on a map, and give map reference here:

C4.2 Aquatic surveys for presence / absence using eDNA.

A. Have you used eDNA to determine GCN presence? ☑ Yes ☐ No

B. If yes, please confirm the following:

i. The Defra technical advice note has been strictly followed - ☑ Yes ☐ No

If no, the results will not be accepted.

Applicants must ensure they retain or have access to the records set out in the technical advice note, and used to support the licence application, for at least 12 months after the first licence return (dates for which will be set out in any licence granted).

ii. Natural England's published timeframes for taking eDNA samples has been adhered to - ☑ Yes ☐ No

If no, please explain why.

iii. Confirm only licensed GCN surveyors, or suitably trained and competent Accredited Agents (see below table) have taken the eDNA samples to support this licence application. Provide their names and licence references below. ☑ Yes ☐ No

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
P004	[redacted]	2020-46807-CLS-CLS
P030	[redacted]	2015-16722-CLS-CLS
P055	[redacted]	2015-18927-CLS-CLS
P002	[redacted]	2015-16722-CLS-CLS
P003	Pond dry at the time of survey	
P006	Pond dry at the time of survey	
P016	Wild Frontier	Unknown
P017	No survey due to lack of access	
P018	No survey due to lack of access	
P023	[redacted]	2015-18927-CLS-CLS

Add more records here Additional records page

C. Complete the following table

Pond reference	Date eDNA sample taken	Result (presence or absence)
P004	10/06/2022	Present
P030	10/06/2020	Present
P055	16/04/2021	Present
P002	10/06/2020	Absent

P003		N/A
P006		N/A
P016		Absent
P017		N/A
P018		N/A
P023	15/04/2021	Absent

Add more records here Additional records page

It is only acceptable to use Accredited Agents under a GCN survey licence to collect eDNA samples if it can be demonstrated that they are adequately trained and competent in GCN ecology, conventional survey techniques, trained in the collection of eDNA samples and are experienced GCN surveyors even if they do not hold their own GCN survey licences. The named ecologist and applicant are responsible for ensuring that this condition is met.

Results of eDNA survey data must be clearly depicted on Figure C3.2a.

Next Section

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods) - GCN results - Pond 1

Was an aquatic amphibian survey done?	Yes	If no, proceed to next section.
Total no. of ponds surveyed:	3	If >10 ponds or >8 visits for a pond, provide further data… See additional Survey ponds 11-20 sheet
Surveyor name(s):		

Important. Read before completing this section: Enter GCN survey data in relevant boxes in the table below (for Pond 1) and those on subsequent sheets (for up to 9 other ponds). Enter "0" where you did a survey and found no newts; leave box blank if no survey was done. This format is designed for a typical single season survey with typical methods and effort. Explain atypical methods/effort later. For multiple year surveys, give details in annex (convert data to this format if possible). Use these tables to provide details only for the most recent season's survey. Append older survey results in full. Automatic yellow highlight indicates possible detectability problem (see Evaluation & interpretation section, later).

Pond reference (e.g. "Pond 1") - *below*				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
P004					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:	6				>= 1,000,000 cp			11-50 traps							
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity		23	46	0	13	8	0	2	0	0	Yes	No
31/03/2021	14	1	0	Adult totals:	69			21			2				
(2) Date:	Air temp	Veg cover	Turbidity		1	6	8				0	0	0		No
26/04/2021	7	4	0	Adult totals:	7			0			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	0	0	1	4	0					No
15/05/2021	10	3	1	Adult totals:	0			5			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	0	0	3	18	0					No
19/05/2021	9	4	1	Adult totals:	0			21			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	1	0	8	8	0					No
26/05/2021	11	5	1	Adult totals:	1			16			0				
(6) Date:	Air temp	Veg cover	Turbidity												
15/06/2021	14			Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								69							

Comments and constraints: Visit 5: 80% surveyed due to dense vegetation. Water level had dropped significantly since last visit so only 25 traps used.
Visit 6: Pond was dry

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods)- GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 2)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
P030					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:			6		>= 1,000,000 cp			11-50 traps							
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity		8	2	0	2	5	0	0	0	0	Yes	No
31/03/2021	14	1	1	Adult totals:	10			7			0				
(2) Date:	Air temp	Veg cover	Turbidity		64	12	0	4	1	0					No
20/04/2021	13	2	2	Adult totals:	76			5			0				
(3) Date:	Air temp	Veg cover	Turbidity		6	4	0				0	0	0		No
28/04/2021	7	2	3	Adult totals:	10			0			0				
(4) Date:	Air temp	Veg cover	Turbidity		1	6	2	3	2	0					No
12/05/2021	10	2	3	Adult totals:	7			5			0				
(5) Date:	Air temp	Veg cover	Turbidity		2	2	0	2	2	0					No
19/05/2021	9	2	3	Adult totals:	4			4			0				
(6) Date:	Air temp	Veg cover	Turbidity		1	3	0	0	0	0					No
26/05/2021	11	3	1	Adult totals:	4			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								76							

Comments and constraints: Visit 4 + 6: 70% of bank surveyed due to dense reed growth

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 3)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
P055					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:			5		>= 1,000,000 cp			11-50 traps							
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity		1	3	0	0	1	0				Yes	No
20/04/2021	8	1	1	Adult totals:	4			1			0				
(2) Date:	Air temp	Veg cover	Turbidity		0	2	0				0	0	0		No
26/04/2021	7	2	2	Adult totals:	2			0			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	3	0	1	2	0					No
19/05/2021	9	2	3	Adult totals:	3			3			0				
(4) Date:	Air temp	Veg cover	Turbidity		2	4	0	1	4	0					No
26/05/2021	11	2	2	Adult totals:	6			5			0				
(5) Date:	Air temp	Veg cover	Turbidity		2	1	0								No
15/06/2021	14	3	2	Adult totals:	3			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								6							

Comments and constraints:

Visit 1: 60% no access due to dense vegetation. GCN eggs found in Willowherb (Epilobioum sp.).
Visit 4+5: 20% of bank surveyed due to dense scrub
Visit 6: not carried out due to surveyor illness

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 4)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:															
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								0							

Comments and constraints:

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 5)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:															
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								0							

Comments and constraints:

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 6)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:															
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								0							
Comments and constraints:															

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 7)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:															
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								0							
Comments and constraints:															

: Sizewell C - Green Rail Route

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 8)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:															
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								0							
Comments and constraints:															

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C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond *NB: This page prints in landscape format*

Pond reference (e.g. Pond 9)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:															
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								0							
Comments and constraints:															

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C4.3 Aquatic amphibian survey (conventional methods) - GCN results (Pond 10) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 10)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in						eggs found?	larvae found? (any method)
No. of survey visits to this pond:															
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	0			0			0				
Peak adult count for this pond in any one visit (by torch, trap or net):								0							

Comments and constraints:

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C4.4 Aquatic amphibian survey (continued)

1. Confirm that you have undertaken a walkover survey within 3 months prior to submission.....

Yes No

2. If the survey was not undertaken this year, please confirm whether there are any changes to habitats (aquatic or terrestrial). If yes, please detail the nature of the changes below.

Next Section

: Sizewell C - Green Rail Route

C5 Interpretation and evaluation

Summary of presence, peak count, population size class and habitat quality

Enter whether GCNs (any life stage) were detected for each pond, and HSI score for each pond subject to adverse impacts (see guidance in instructions). The other fields (in blue) should be generated automatically based on data you have entered in previous sheets.

Pond ref	Gt. crested newts detected?	Peak adult count	Pop size class	HSI	Low detect-ability warning*	Peak count visit number	Eggs
P004	Yes	69	Medium	0.82	Caution	1	Yes
P030	Yes	76	Medium	0.73		2	Yes
P055	Yes	6	Small	0.65		4	Yes
0		0		0.56			
0		0					
0		0		0.31			
0		0					
0		0					
0		0					
0		0		0.44			

***Note: The detectability column will state "Caution" if your data suggest any survey was done in poor conditions (temp<5C, veg cover>3, turbidity>3 or torch power <500,000 cp); otherwise it is blank. Aquatic newt surveys should not be carried out when air temp is <5C or with weak torches as results can be misleading. Whilst careful timing can sometimes avoid vegetation and turbidity problems, they are inevitable at some sites. It may be appropriate to undertake more detailed surveys and interpretation techniques (e.g. CMR). If this column returns "Caution", or there is any other reason to suspect detectability problems, you should be especially careful about interpreting counts, and comment on this in the constraints box below.**

Peak total site count** for all ponds surveyed:	85

** This figure is derived as follows. For each survey visit, the spreadsheet picks the highest count of adult newts obtained by torch, net or bottle-trap for each pond. These individual pond counts are then summed to give a site count for each visit. The peak total site count is then the highest of these figures, i.e. highest summed count across all ponds attained on any one visit. This figure may derive from counts using a mixture of methods (torch, bottle-trap or net) - see adjacent table which shows how the figure is derived. The calculations assume survey visits per pond are undertaken within similar timeframes, if this is not the case, this Peak total site count should be calculated by hand and reasons for it explained in the general comments text box below.

Population size class for all ponds surveyed:	Medium

*** this automatically generated size class assumes that it is appropriate to aggregate counts from all ponds, i.e. there is likely to be newt movement between ponds, for example where each pond is within approx 250m of another, with no significant barriers to dispersal. If you believe the automatically generated size class is incorrect for your site, provide your ecological justification in box below and give alternative accounts of peak total site counts and population size class for the site. Where there are meta-populations explain which ponds form each meta-population. For surveys of >10 ponds, data should be added to appendix provided, and note that peak counts etc will need to be derived separately.

Each pond surveyed was of medium or assumed medium population size so the size class above is representitive of each pond individualy. P004 and P030 had peak counts of 69 and 76 respectively so populations within these ponds are considered of a mediumn size class. P055 had a peak count of 6 however only 20% of the bank was surveyed so this has been extrapolated upwards so a peak counbt of 30 is possible.
However due to the gaps in between the ponds surveyed within the survey area, it is not appropriate to aggegate counts from all ponds. These ponds are isolated from each other by arable fields considered unsuitable connecting habitat and where connecting habitat is present it is considered too far for newts to travel (i.e. P030 is 780m from P004 and 830m from P055. P004 is 480m from P055 in a straight line across arable fields however is 690m through hedgerow habitat).

Site status assessment (see Section 5.8.5 of *Great crested newt mitigation guidelines* for guidance):

Quantitative	Moderate importance - medium population

Qualitative	Minor - no breeding on site; habitats common in area
Functional	Minor importance - population completely isolated
Contextual	Major importance - population size class high for area

General comments on overall site status, and constraints to interpretation and evaluation -
How did the constraints affect your interpretation of your survey?

• Account for the presence of any barriers to dispersal and explain how this affects your assessment of the distribution of newts across the site and the presence of meta-populations

As highlighted above, the distance that the GCN ponds are away from each other (>500m) and the lack of suitable connecting habitat are considered a barrier to dispersal and means that they are isolated from one another.

• Acknowledge any survey constraints e.g. low detectability warnings (as highlighted in section C5 above), deviation from survey recommendations in the GCNMG (methodology, timings, effort) etc.

The following constraints were encountered:
- P004: A low detectability warning for P004 due to high veg cover on visits 2, 4 and 5. Only 5 visits were undertaken at P004 as the pond was dry on visit 6.
- P030: 30% of the bank was unaccessible on visits 4 and 6 due to dense reed growth.
- P055: only 20% of the pond was accessible to survey on visits 4 and 5. Only 5 visits undertaken on P055 due to surveyor illness preventing final visit.
- P036: Conventional GCN surveys could not be undertaken at P036 as access permission could not be obtained until late in the season (XX/06/2021).

In addition to the above, the ponds were unable to be surveyed in the beginning and middle of April and early May as conditions were unseasonably cold (below 5 degrees at night).

• Justify why constrained survey data is considered to accurately represent the size and distribution of the GCN population(s) present

Standard procedures were always followed during GCN surveys. The following provides a justification for each pond:
- P004: The peak count was recorded on visit 1, when there were no constraints to survey, therefore the population size class data can be relied upon to provide a robust estimate.
- P030: The peak count was recorded on visit 2. There were no constraints to surveys on visit 1-3 and the recorded population decreases in size after visit 2 suggesting that activity was tapering off from visit 3. The peak count is therefore considered to be robust.
- P055: The peak count (6) was recorded on visit 4, when only 20% of the pond could be surveyed due to dense scrub. If the peak count was extrapolated upwards to account for this a peak count of 30 is possible. Therefore the population size of P055 is assumed medium. Visit 6 was not undertaken however this would have been late in the season (end of June) so it is unlikely that a higher peak count would have been recorded.
- P036: eDNA surveys indicated presence of GCN. The HSI score for P036 was 'Average' so a small population is assumed.

While surveys were not undertaken in early to mid April and early May, the number of visits to each pond was considered sufficient to provide a robust estimate of population size.

Next section

: Sizewell C - Green Rail Route

D1 Habitat impact tables

N.B: this section must identify impacts *in the absence of mitigation or compensation measures.* Refer to the *Great crested newt mitigation guidelines* for guidance in impact types (section 6).

Should you wish to convert ha to m^2 or m^2 to ha please use this converter

Total Area of Development (ha): 23.9

D1.1 Breakdown of terrestrial impacts

Permanent		Temporary	
Habitat type	Area lost (ha)	Habitat type	Area damaged (ha)
		Arable fields	22
		Semi-improved grassland	0.69
		Hedgerow	
Total Loss	0	Total Damage	22.69

D1.2 Core, intermediate and distant terrestrial impacts

	Permanent	Temporary
	Area lost (ha)	Area damaged (ha)
Core (<50m from pond)	0	0
Intermediate (50-250m from pond)	0	7.2
Distant (>250m from pond)	0	14.09
Total (ha)	0	21.29

D1.3 Aquatic impacts

	Permanent		Temporary	
	Number lost	Area lost (m^2)	Number damaged	Area damaged (m^2)
GCN Ponds	0	0	0	0
Other Ponds	0	0	0	0
Total	0	0	0	0

Notes on terms in these tables:

• 'GCN ponds' must include all ponds or other waterbodies in which GCN were recorded plus any others that are likely to be used by GCNs for foraging e.g. suitable ponds / waterbodies where no GCN were recorded but with good connectivity to other ponds / waterbodies within the survey area found to support GCNs.

• Area of ponds to be calculated by measuring or estimating extent at winter maximum.

• "Terrestrial habitat" here includes any land likely to be important to the local GCN population for foraging, resting, hibernating or dispersal. This means, for example, that even unvegetated or sparsely vegetated areas close to high quality newt ponds (within around 50m) should be included in impact assessments; this could apply to quarry floors, arable, cracked or damaged hard-standing and amenity grassland.

•Areas may be excluded from calculations if you assess that they are substantially isolated by barriers to dispersal and therefore highly unlikely to be used by newts; this may even include apparently high quality

areas.

• Areas may also be excluded if you believe for any other reason that they are highly unlikely to be used by newts. **Please always explain why you have excluded certain areas below.**

If there are discrepancies in the areas in the tables below, please explain in the Impact text boxes below

D2 Pre- and mid-development impacts: descriptive text. Example: "Vegetation clearance and archaeological investigations in Area A would kill and injure newts, and damage core refuge sites, close to Pond 1. Moderate negative impact on population."

The construction phase activities will require standard operations including vegetation clearance and topsoil stripping. No GCN breeding ponds will be lost or directly impacted by the planned works in the short-term (construction phase) or long-term (operational phase). The temporary loss of sub-optimal habitat, in the form of arable land, and suitable habitat, hedgerows, will be during the construction phase and operational phase of the railway, however this will be replaced with areas of reinstated agricultural land and hedgerows after the development has been removed.

D3 Long-term impacts: descriptive text (to always include fragmentation if applicable to scheme) . Example:
"Construction of Plot 1 in Area B would kill and injure newts, destroy Pond 1 (a breeding site) and core terrestrial habitat, consisting of rough grassland and deciduous woodland, around Pond 1. Creation of play area in Area C would reduce grassland value for newts. Construction of Plot 1 would create significant dispersal barrier between Ponds 1 and 2. Serious negative impact on population."

No long-term negative impacts are expected arising from the implementation of the park and ride scheme and no 'Core' terrestrial habitats would be lost. ‘Intermediate’ and 'Distant' terrestrial habitats would be lost; however, the habitat is sub-optimal arable land that does not provide resting opportunities. Furthermore, The distance between P030 and P004/P055 is >750m and there is a lack of connecting habitat making the movement of newts between the ponds in the north and P030 very unlikely, so the scheme does not represent a dispersal barrier. In the long term, sub-optimal habitat in >50m of the GCN ponds will be reinstated.

D4 Post-development interference impacts: descriptive text. Example: "Major increase in risk of fish and invasive aquatic plant introduction due to creation of large residential development adjacent to pond. Potentially serious negative impact on population."

Once decomissioned and the site is returned to agricultural use, there is assessed to be no significant increase in risk to GCN.

D5 Other impacts: descriptive text. Example: "Reduced water table due to altered local hydrology when development is complete. Increased early pond desiccation, resulting in lower breeding success. Likely serious negative impact on population." impacts when creating any mitigation or compensation measures.

D5.2 Impact assessment map notes

Impact maps must be of a suitable scale to clearly show the following:

- The development site boundary
- 50m, 250m and 500m radii around each GCN pond boundary
- Temporary and permanent impacts and habitats affected (to include a key to show the habitat types).
- Fragmentation impacts and/or barriers to dispersal.

More than one map may be required for larger schemes.

NB: Impacts must be shown on FIG. D - ensure all habitats types that will be affected **by the proposals and impacts on them (indicating whether temporary or permanent) are clearly indicated and 50m, 250m and 500m radii are shown around GCN ponds.**

See Sum & Figs. tab.

Next section

: Sizewell C - Green Rail Route

E1 The mitigation solution being proposed in the Method Statement should be the one that delivers the 'need' with the least impact on the newt population.
Please explain why this design was chosen over other potential solutions - set out what other mitigation proposals were considered and why they were not feasible, for example:
• if the proposal is to construct a new road and it will destroy breeding ponds, explain why it is not possible to retain the ponds in the proposed design etc; or,
• if a residential development results in a net loss of habitat, explain why it was not possible to reduce the housing footprint; or,
• if pond drain down is planned for the summer months when newts are breeding please explain why it is not possible to schedule this in, followed by pond destruction, in late September onwards; or
• if your proposal includes a non-standard approach to meeting the 'need'.

The proposed development works comprise the creation of rail extension within an area of arable land considered to be of low value to GCN. The scheme has been designed to avoid the loss of any ponds, with all ponds being retained.

Given the domination of the development area by suboptimal GCN habitat, it is considered unlikely that the proposed scheme will have a significant negative impact on the GCN population in this area. Nevertheless, in absence of mitigation there is the potential to injure/kill individual GCN and, as such, a precautionary working methods are proposed. These are detailed within Additional Sheet E - Reasonable Avoidance Measures Method Statements for Great Crested Newt for the following scenarios:
- Vegetation clearance in the active season.
- Vegetation clearance in the hibernation season
- Approach to ground-breaking works including top-soil stripping (active season and hibernation period)

Accordingly, the proposed development is predicted to have non-significant, negligible temporary impacts on the great crested newt population. Once construction is complete the site area will be restored, therefore the impacts are considered to be negligible and only for the duration of the works. The vast majority of the affected terrestrial habitats are considered to be of low value for great crested newts providing few refuges (managed agricultural land).

E2 Receptor site selection. *NB: this relates to the place(s) where any captured newts will be released. It does not just refer to distant receptor sites or need to be the entire compensation area; where GCN will be placed must be clearly indicated on the relevant map. Enter details below unless no newts will be captured or displaced.*

NB: Location of the receptor site in relation to the development site must be provided on FIG. E2
see Sum & Figs. tab

E2.1 Existing GCN status at receptor site(s)

E2.2 Survey information for receptor site if different from the survey for the application proposal.

E2.3 Receptor site locations. *Must include:* Please record further sites in Additional Records tab

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site (m).

E2.4 Receptor site(s): ownership and land status. *Please note that any receptor site must be free from development proposals/threats.* Additional records tab.

Site name	Site Ownership	Conservation Designation?

E2.5 Receptor site: habitat description, size (ha) & adjacent land use. Additional Records tab

Site name	Habitat description	Size (ha)	Adjacent Land Use

E3 Habitat creation, restoration and/or enhancement

The left side of table below summarises the impacts you specified in section D. Enter the habitat creation, restoration and/or enhancement that will be undertaken to compensate for these impacts in the right hand column.

Should you wish to convert ha to m^2 or m^2 to ha please use this converter

Aquatic habitat	**Impacts**			**Compensation**		
	Effect	**Number**	**Total Area (m^2)**	**Measure**	**Number**	**Total Area (m^2)**
GCN ponds	Lost	0	0	Created	0	0
	Damaged	0	0	Restored / reinstated / enhanced	0	0

Terrestrial habitat	**Impacts**	**Compensation**
	Area lost (ha)	**Area gained (ha)**

	Permanent	Temporary	Created	Restored / reinstated / enhanced
Core	0.0	0.0	0.0	0.0
Intermediate	0.0	7.2	0.0	7.2
Distant	0.0	14.1	0.0	14.1
Totals	0.0	21.3	0.0	21.3

NB: All habitat creation, restoration and enhancement measures must be shown on FIG. E3.1 - see Sum & Figs. tab

If a net loss of habitat (ha) is proposed please provide in the text box below an ecological justification to explain why the habitat measures proposed are considered sufficient to compensate for the impacts of the development. Some reduction in terrestrial habitat area may be acceptable provided there is an appreciable increase in habitat quality.

No net loss is expected once habitats are reinstated following the development

E3.1 Describe the creation, restoration or enhancement of aquatic habitats (include design and water body dimensions as per *mitigation guidelines* and waterbody location. Dimensions these will be included in any annexed licence issued).
NB: Only put timing of aquatic creation, restoration or enhancement in the timetable E6a.

Pond reference	Surface Area (m^2)	Max. Depth (m)	Design / enhancement measures and location
N/A			

E Mitigation & compensation (continued)
E3.2 Terrestrial habitat measures
State number/area/length of any terrestrial habitat measures. Leave blank if not applicable. *Dimensions of hibernacula are expected to be *at least* that recommended in the mitigation guidelines.

	Number/area (ha)/length**	
	Created	Reinstated / Restored / Enhanced
Hedgerow planting		
Grassland re-seeding		
Grassland management (just for GCN)		
Scrub planting		
Woodland planting		
Hibernacula creation*		
Refuge creation		

*** Information must be consistent with Table E3.*

Please describe management methods and explain any novel designs, non-standard proposals or techniques in the free text box below. Also describe any other terrestrial habitat measures, including locations & design.
(Confirm landowner agreement for these measures, if they are to be created on land outside of the applicant's
NB: Do not put in specific dates here; add these into E6a (separate document).

E3.3 Integration with roads and other hard landscapes.
Explain any measures you will take to integrate mitigation with roads and other hard landscapes. If you propose any connectivity measures, such as underpasses, please specify:

- Design (to include length, width, height and guide fencing)
- Monitoring (to include methodology and duration)
- Maintenance (to detail how long-term functionality of the underpass(es) and entrances will be ensured)

NB: Locations & details of any proposed connectivity measures must be provided on FIG. E3.3 - see:
Sum & Figs. tab
NB: If you have identified fragmentation as an impact this is something you should address.

E Mitigation & compensation (continued)
E4 Capture, exclusion & translocation: ***Please do not refer to any dates in this section - these should be provided in E6.***

State capture +/or exclusion methods, with effort levels. Pls Read Advice Notes

	Use method? *Yes/no*	Minimum capture effort *(days)*
At pond: bottle-trap, net, hand search &/or drain down		
At pond: ring-fence, pitfall trap (+ fence & refuges)		
Away from pond: hand search	Yes	
Away from pond: destructive search	Yes	
Away from pond: fence, pitfall trap (& refuges)		
Away from pond: night search		
Away from pond: exclusion fence only		
Other or additional method(s) - state below:		

NB: • A minimum of 25 nights trapping will only be acceptable in exceptional circumstances which are fully justified and explained. See guidance on capture effort

NB: Locations of all capture/exclusion activities must be shown on FIG. E4(a)
- Any non-standard capture/exclusion measures should be detailed on FIG. E4(b) - see H - Figures ta
- if timings of works are different for different meta-populations please separate out in your work schedule.

Briefly explain your capture/exclusion proposals, for example:
• Justify the use of non-standard methodologies and/or deviation from recommendations in the Great crested newt mitigation guidelines
• Explain differing capture effort in trapping compartments
NB: If a very complex capture operation is proposed the methodology should be explained in detail below.

The areas of grassland present within the margins of the arable land will be cleared by way of a precautionary two stage strimming exercise, with hand searches for newts being undertaken immediately following the first stage of the clearance.

E Mitigation & compensation (continued)

E5 Post-development site safeguard. Refer to Section 8.5 of the Great crested newt mitigation

E5.1 Habitat management & maintenance

Is any specific post-development habitat management and site maintenance planned?

☐ Yes ☐ No If no, proceed to population monitoring section E5.2.

State which of the following habitat management operations will occur:

Aquatic vegetation management in water bodies	
Clearance of shading tree or scrub cover around pond margins	
Mowing, cutting or grazing of grassland	
Desilting and clearance of leaf-fall	
Woodland and scrub management	
Other (state below)	

NB: Details of site management and maintenance should be shown on FIG. E5.1. - see "H Sum & Figs" tab. Indicate which areas (including which ponds) the management and maintenance plan will apply to.

State which of the following site maintenance operations will occur:

Checking for fish presence, and removal through appropriate methods	
Checking pond condition and remedial action as required	
Checking for and removal of dumped rubbish	
Reinstatement following fire, acute pollution or other major damage	
Repair or replace fences	
Maintain tunnel, underpass, guide fencing in good condition	
Repair or replace interpretation boards	
Other (state below)	

State the period for which habitat management and maintenance plan will continue:

NOTE: A separate, detailed plan must also be attached if
(a) population size class is large and impacts are moderate-high,
(b) regionally important population and impacts are moderate-high,
(c) losses of > 2 breeding water bodies on site supporting medium size class population, or
(d) phased or multi-plot developments.

If your proposal meets one of the above (a - d), confirm that such a document is attached:

☐ Yes ☐ No

Please note, if you have selected 'No', you are likely to receive a Further Information Request.

E5.2 Post-development population monitoring (refer to Section 8.5.2 of the *Great crested newt mitigation guidelines* and advice at beginning of this template).

NB: Details of ponds which will be monitored post development must be shown and referenced on FIG. E5.2.

see Sum & Figs. tab

NB: It is the licensee's responsibility to ensure that post development monitoring is carried out and that remedial action is taken if compensation measures are failing.

Is population monitoring required? Y/N

Please refer to table in the post development monitoring advice section

If no, proceed to section E5.3

Indicate timing and type of post-development population monitoring:

Timing (years post-devt):

Type of monitoring:

Specify which ponds will be monitored. Additionally, if your post-development monitoring proposals do not follow the GCNMG please provide your ecological justification below. Comments on monitoring period, methods or

NB: A Natural England mitigation licence will not confer rights of access to monitor water bodies or other habitats which lie outside the licensee's ownership. Permission/s should be granted prior to applying for a licence. Please see Declaration section in worksheet I.

E5.3 Site safeguard

Mechanism(s) for site safeguard.

Is there a mechanism in place to secure site safeguard?..... ■ Yes ■ N/A

If N/A, please briefly explain why.

If yes, please confirm which apply to your

i) Restrictive Covenant..... ■ Yes

ii) Clause to relinquish future development rights in S106 agreement..... ■ Yes

iii) NERC Act agreement..... ■ Yes

iv) Explicit recognition of site in local planning documents..... ■ Yes

v) Designation as County Wildlife Site or similar..... ■ Yes

vi) other.....

Please confirm that the receptor site and mitigation and / or compensation land is free from future development.

■ Yes ■ No

Note : if you state 'No' your application will almost certainly be rejected; provide justification below.

NOTE: A copy of any significant document, such as a Section 106 agreement, must be included with your application. It must be clear within any s106, or other legal document/agreement, where the specific reference to GCN is.

E6 Work Schedule

Please complete a separate Work Schedule for Great crested newt Annexed Licence, and submit with your application.

Next section

: Sizewell C - Green Rail Route

F - Final post development Layout

F1 Final Post development Layout Figure F1 is required

NB: Please show the final layout on FIG. F1. - see "H and list of figures"below. This must show the final development layout <u>and</u> include ponds, buildings, roads, GCN tunnels , other mitigation or compensation measures, etc.

G - Checklist of Documents, figures, maps and diagrams to include

You must provide maps, photographs and diagrams to adequately explain the mitigation plans. Use the checklist below to understand what is required for your application. All maps and figures must be included as individual files. Additional maps, photos or diagrams should be included where necessary.

Map / Figure guidance: Ensure each map / figures includes the following:

- Site name and figure reference
- Scale bar and Direction of North
- Date DD/MM/YYYY

H - List of figures

Figure reference	Mandatory or not?	What it must show (also see details above on site reference, dating and naming).
Figure B1.1 ☐ Included	**Yes,** if the application is part of a phased or multi-plot development	**Masterplan map** showing the location of each individual phase or plot associated with the overall scheme. The phase to which the current application refers should be highlighted
Figure B1.2 ☐ Included	**Yes**, if there are other GCN mitigation projects nearby which might affect the target population	**Map to show location of other nearby GCN mitigation sites** to show development boundaries and compensation/mitigation areas.
Figure C3.2a ☐ Included	**Yes**	**Survey map** to show development site location, survey area and ponds. The terrestrial and aquatic habitats described in sections C3.3 and C3.4 should also be shown. Indicate which ponds were found to support GCN, including specifying results of any eDNA sampling if relevant.
Figure C3.2b ☐ Included	-	**Aerial photograph of site** for information only to help better inform the application.
Photos C3.4 ☐ Included	**Yes**	**Photographs** to show terrestrial and aquatic habitats on the development site and surrounding area (to include the receptor area).
Figure D ☐ Included	**Yes**	**Impact map** to show the location and extent of the different habitat types to be temporarily and/or permanently lost/damaged (as detailed in section D of the Method Statement). Radii of 50, 250 and 500m around each GCN pond which will be impacted must be shown
Figure E2 ☐ Included	**Yes**	Receptor site map to show the location of the receptor site(s) in relation to the development.
Figure E3.1 ☐ Included	**Yes**, if habitat creation, enhancement or restoration is proposed	Habitat measures map to show the location and extent of all terrestrial and aquatic habitat measures detailed in section E3 of the Method Statement).

Figure E3.3 ■ Included	**Yes**, if measures to improve connectivity are proposed	Connectivity map to show the location of any measures employed to improve connectivity e.g. underpasses/tunnels, newt friendly traffic and /or drainage features (dropped kerbs/set-back gully pots) etc
Figure E4a ■ Included	**Yes**	Capture and exclusion map to show how GCNs will be cleared from the development site and prevented from entering during construction. A clear differentiation should be made between different types of amphibian fencing (e.g. permanent, temporary, perimeter, drift, ring, one-way etc)**.** Direction of travel over one-way fences should also be shown.
Figure E4b ■ Included	Yes, if non-standard measures are proposed	Non-standard capture and exclusion measures – diagrams or photographs to show designs/specifications.
Figure E5.1 ■ Included	**Yes**, if habitat management and maintenance is proposed	Post-development management and maintenance map to show the location and extent of the terrestrial and aquatic habitats to be managed and maintained in accordance with section E5.1 of the Method Statement. To include tunnels/underpasses/guide fencing if applicable. Ponds to be managed and maintained must be clearly referenced.
Figure E5.2 ■ Included	**Yes**, if monitoring has been proposed	Post-development monitoring map to show, and reference, all of the waterbodies to be monitored (as detailed in section E5.2 of the Method Statement). To include tunnel/underpass/guide fencing if applicable.
Figure F1 ■ Included	**Yes**	**Final development layout map** to show both the development layout (e.g. buildings, rail, roads) and all of the mitigation/compensation measures proposed (e.g. including ponds, tunnels, receptor areas)

List of documents

Document		Mandatory or not?
Completed application form	■ Included	Yes
Completed method statement template	■ Included	Yes
Completed work schedule	■ Included	Yes
Figures - as stated above	■ Included	Yes
Separate Masterplan document	■ Included	Yes - if part of a phased or multi-plot development
Separate Habitat Management and Maintenance Plan	■ Included	Yes - if: (a) population size class is large and impacts are moderate-high, or (b) regionally important population and impacts are moderate-high, or (c) losses of > 2 breeding water bodies on site supporting medium size class population, or (d) phased or multi-plot developments.

List any other maps, photographs or diagrams attached:

Next Section

Additional Sheet E - Reasonable Avoidance Measures Method Statements for Great Crested Newt

1.1 Introduction

1.1.1 This section provides a suite of dedicated reasonable avoidance measures method statements for the ecological constraints that may be encountered for great crested newt during the facilitation works.

1.1.2 In all cases the aim of the Method Statement is to reduce the risk of causing injury / mortality of the protected species and avoid contravention of the relevant legislation. The licence holder or appointed agent will determine exactly when and where it is appropriate to apply the measures described in the reasonable avoidance measures method statements. The licence holder or appointed Licence holder or appointed agent will oversee and quality-control the implementation of the tasks undertaken.

1.1.3 It is the responsibility of the site contractors to carry out the works in a manner which will not contravene the legislation with regards to protected species in the areas identified as having potential to support protected species. Any variations from the individual Method Statements may contravene legislation and therefore risk prosecution. Thus, it is their joint responsibility that no changes to the timings or methods outlined below are made without prior agreement from the licence holder or appointed Licence holder or appointed agent.

1.2 Toolbox talk

1.2.1 Prior to commencement of the works, all site contractors will be briefed by the licence holder or appointed agent as part of the site induction to provide them with a basic overview of the life history, habitat requirements, identification and legal protection granted to great crested newt.

1.2.2 Site-specific toolbox talks will also be undertaken as necessary to identify the habitats present within the site that have the potential to be used by great crested newt and outline the environmental measures to be followed in order to avoid breaches of legislation and / or adverse effects on great crested newt that could occur within or in the vicinity of the working area. The toolbox talk will stress that: potential great crested newt refugia / hibernation features should be left undisturbed; and great crested newt should not be handled by contractors. Those present will sign to confirm they have understood the constraints and actions presented.

1.3 Precautionary working methods

1.3.1 A different precautionary working method will be utilised dependent upon whether the works are being undertaken in the great crested newt active or hibernation period. These periods are dependent upon weather conditions (temperature and rainfall) but are likely to be in the region of

November to February inclusive (hibernation season) and March to October (active season). The licence holder or appointed agent will be responsible for determining the appropriate working methodology.

1.3.2 The prescriptions of this method statement should be followed during works in any areas with potential to support great crested newts. These areas include but are not limited to: tree roots, hedgerow bases, rough grassland areas, arable field margins, earth banks, log piles, rock piles and woodlands.

1.3.3 If possible, all impacts to terrestrial areas which may offer hibernation potential (i.e. log piles, embankments etc.) will be removed outside of the hibernation period, as great crested newt are more likely to be active and associated with ponds during this period. However, there are restrictions on certain works due to the potential to impact upon nesting birds (during the bird nesting season, generally March to August inclusive), and all works timings will need to consider this.

1.3.4 No ponds supporting great crested newt are to be directly impacted by the works therefore an approach to pond removal is not required. For clarity, the precautionary working methodologies have been split down into three scenarios:

- Vegetation clearance in the active season.
- Vegetation clearance in the hibernation season.
- Ground-breaking works in the active and hibernation season.

1.4 Approach to vegetation clearance

a) Vegetation clearance in the active season

1.4.1 Any clearance within the active season must also consider the potential to impact upon nesting birds. Suitable measures to prevent impacts to nesting birds should be employed, which are likely to include pre-works checks for nests. These measures in relation to birds are not outlined in full within this document.

1.4.2 Prior to commencement of the vegetation clearance works, the licence holder or appointed agent will liaise with the contractor to clearly demarcate the required working area.

1.4.3 The precautionary working methods to safeguard great crested newt during vegetation clearance in the active season are set out below.

- The licence holder or appointed agent will work with the contractor to determine a cutting regime whereby any animals present are able to move away from the cutting into retained habitats and not isolated in an unsuitable area. This area will be walked by the licence holder or

appointed agent to identify any areas offering great crested newt sheltering opportunities prior to works commencing.

- Any suitable great crested newt sheltering features (e.g. log piles, compost heaps or debris) will be identified by the licence holder or appointed agent. These will be avoided if possible, if not they will be checked by the licence holder or appointed agent before their removal (should this be required). Any removal of sheltering habitats will be supervised by the licence holder or appointed agent. These will be dismantled by hand; this should be overseen by the licence holder or appointed agent.

- Shelter features that require removal should be reinstated near the clearance area in a quiet, sheltered location. This will ensure that no net loss of potential great crested newt shelter features takes place. If possible, shelter features should be dismantled by hand and moved out of the working area, supervised by the licence holder or appointed agent where appropriate. Such materials will be lifted (not dragged) out of the working area.

- Vegetation is to be cleared at a minimum 150mm from the ground in the first pass.

- Subsequent to this, a suitable period of time as decided by the licence holder or appointed agent will be given to allow for any great crested newt present at the time of works to move away from the cut areas, this will also allow the licence holder or appointed agent to check the area for great crested newt, along with other species.

- The vegetation will then be cut to as close to ground level as possible.

- Vegetation cuttings are to be piled within the site so as to create additional sheltering opportunities to great crested newt within the site.

b) Vegetation clearance in the hibernation season

1.4.4 Prior to commencement of the vegetation clearance works, the licence holder or appointed agent will liaise with the contractor to clearly demarcate the required working area.

1.4.5 The precautionary working methods to safeguard great crested newt during vegetation clearance in the hibernation season are set out below.

- Any suitable great crested newt sheltering features (e.g. log piles, compost heaps or debris) will be identified by the on-site ecologist. These will be avoided if possible, if not they will be checked by the licence holder or appointed agent before their removal (should this be required). If possible, this removal should be undertaken by hand or slowly under close supervision by the licence holder or appointed agent.

- Shelter features that require removal should be reinstated near the clearance area in a quiet, sheltered location. This will ensure that no net loss of potential great crested newt shelter features takes place. If possible, shelter features should be dismantled by hand and moved out of the working area, supervised by the licence holder or appointed agent where appropriate. Such materials will be lifted (not dragged) out of the working area.

- The vegetation will then be cut to as close to ground level as possible.

- Vegetation cuttings are to be piled within the site so as to create additional sheltering opportunities to great crested newt within the site.

c) Approach to ground-breaking works including top-soil stripping (active season and hibernation period)

1.4.6 If possible, all impacts to terrestrial areas which may offer hibernation potential (i.e. log piles, embankments etc) will be removed outside of the hibernation period, as great crested newt are more likely to be active and associated with ponds during this period. However, there are restrictions on certain works due to the potential to impact upon nesting birds (during the bird nesting season, generally March to August inclusive), and all works timings will need to consider this.

1.4.7 Given that vegetation clearance works are to take place within the site prior to the commencement of any ground-breaking works, it is likely that the risk of encountering great crested newt will be reduced, due to the removal of suitable terrestrial habitat within the areas proposed for ground-breaking works. Ground-breaking works include any ground investigations, archaeology trenching, topsoil stripping etc.

1.4.8 Prior to commencement of the ground-breaking works, the Licence holder or appointed agent will liaise with the contractor to clearly demarcate the required working area. The methodology outlined below assumes that all vegetation has previously been removed.

1.4.9 The precautionary working methods to safeguard great crested newt during ground-breaking works in the active season are set out below.

- Any suitable great crested newt sheltering features (e.g. log piles, compost heaps or debris) will be identified by the on-site ecologist. These will be avoided if possible, if not they will be checked by the licence holder or appointed agent before their removal (should this be required). If possible, this removal should be undertaken by hand or slowly under close supervision by the licence holder or appointed agent.

- Shelter features that require removal should be reinstated near the clearance area in a quiet, sheltered location. This will ensure that no

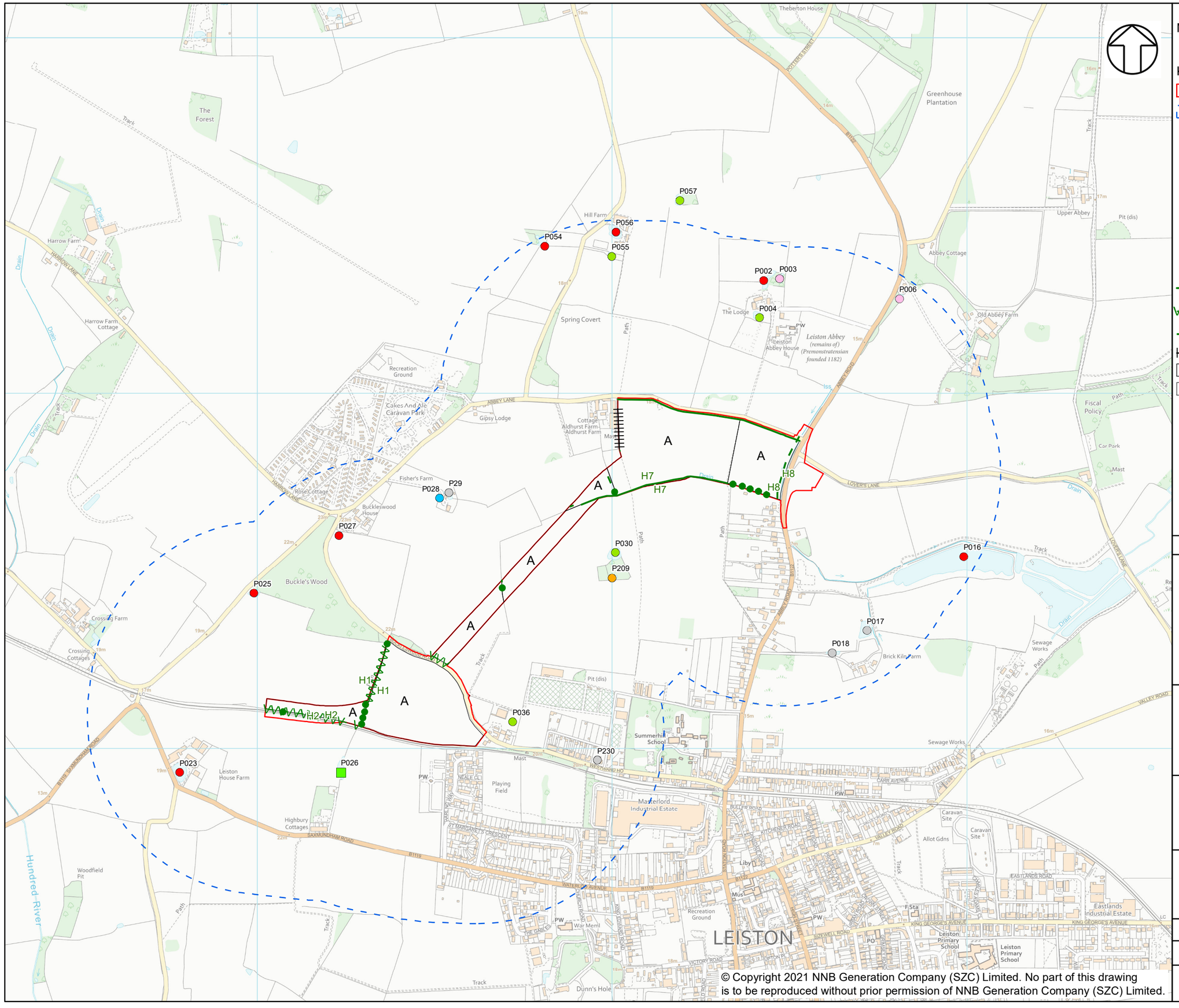
net loss of potential great crested newt shelter features takes place. If possible, shelter features should be dismantled by hand and moved out of the working area, supervised by the Licence holder or appointed agent where appropriate. Such materials will be lifted (not dragged) out of the working area.

- The topsoil will then be carefully removed using a toothed bucket (if permitted under the contractors reasonable avoidance measures method statement) under close ecological supervision by the licence holder or appointed agent.

d) Action to take if great crested newt are found

1.4.10 Should any great crested newt be found during the facilitation works the following must be observed due to the strict level of protection afforded to this species:

- the works will stop;
- the great crested newt will be moved to suitable terrestrial habitat adjacent to the closest GCN pond.



NOTES

KEY

- DEVELOPMENT SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY 500M BUFFER ZONE
- GCN PRESENT
- GCN ASSUMED PRESENT - NO ACCESS
- GCN ABSENT
- DRY PONDS
- PONDS NOT EXTANT
- PONDS SCOPED OUT
- UNKNOWN - NO
- BROADLEAVED PARKLAND/SCATTERED TREES
- INTACT HEDGE - SPECIES-POOR
- DEFUNCT HEDGE - NATIVE SPECIES-RICH
- DEFUNCT HEDGE - SPECIES-POOR
- FENCE
- I IMPROVED GRASSLAND
- A CULTIVATED/DISTURBED LAND -

NOT PROTECTIVELY MARKED

SizewellC
Doing the power of good for Britain
EDF CGN

DOCUMENT:
SIZEWELL C
GREEN RAIL ROUTE GREAT CRESTED NEWT LICENSING APPLICATION

DRAWING TITLE:
SURVEY MAP

DRAWING NO:
FIGURE 3.2A

DATE:	DRAWN:	SCALE :	REV:
AUG 2021	R.C.	1:10,000 @A3	01

SCALE BAR
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KEY

- DEVELOPMENT SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY 500M BUFFER ZONE
- GCN PRESENT
- GCN ASSUMED PRESENT - NO
- GCN ABSENT
- DRY PONDS
- UNKNOWN - NO ACCESS
- PONDS NOT EXTANT
- PONDS SCOPED OUT
- BROADLEAVED PARKLAND/SCATTERED TREES
- INTACT HEDGE - SPECIES-POOR
- DEFUNCT HEDGE - NATIVE SPECIES-RICH
- DEFUNCT HEDGE - SPECIES-POOR
- FENCE
- IMPROVED GRASSLAND
- CULTIVATED/DISTURBED LAND - ARABLE

NOT PROTECTIVELY MARKED

DOCUMENT:
SIZEWELL C
GREEN RAIL ROUTE GREAT CRESTED NEWT LICENSING APPLICATION

DRAWING TITLE:
AERIAL PHOTOGRAPH OF SITE

DRAWING NO:
FIGURE C3.2B

DATE:	DRAWN:	SCALE :
AUG 2021	R.C.	1:8,607 @A3

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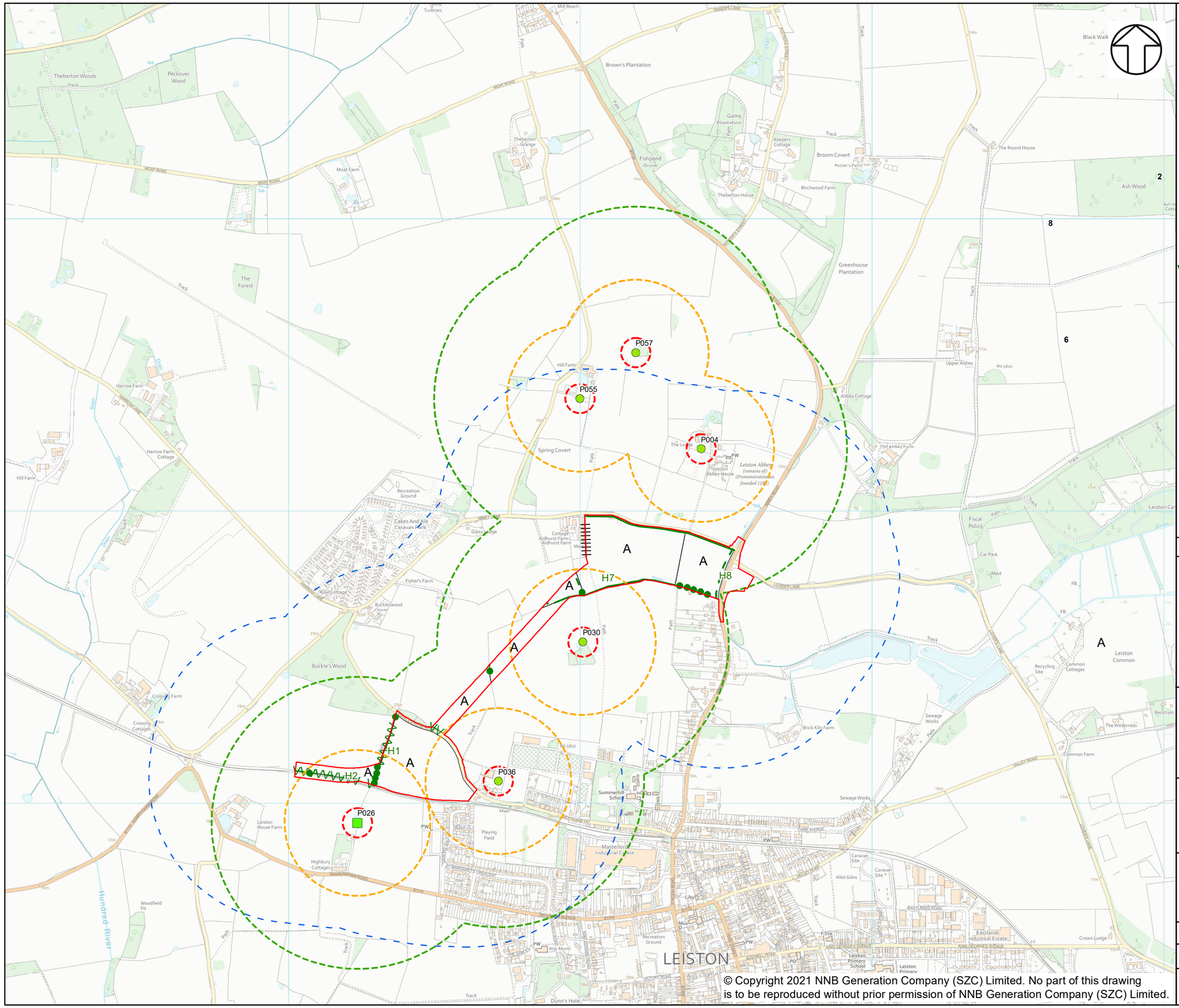
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



NOTES

KEY

- DEVELOPMENT SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY 500M BUFFER ZONE
- GCN PRESENT
- GCN ASSUMED PRESENT - NO ACCESS
- GCN PONDS 500M BUFFER
- GCN PONDS 250M BUFFER
- GCN PONDS 50M BUFFER
- BROADLEAVED PARKLAND/SCATTERED TREES
- INTACT HEDGE - SPECIES-POOR
- DEFUNCT HEDGE - NATIVE SPECIES-RICH
- DEFUNCT HEDGE - SPECIES-POOR
- FENCE
- I IMPROVED GRASSLAND
- A CULTIVATED/DISTURBED LAND - ARABLE

NOT PROTECTIVELY MARKED

SizewellC
Doing the power of good for Britain
EDF CGN

DOCUMENT:
SIZEWELL C
GREEN RAIL ROUTE GREAT CRESTED NEWT LICENSING APPLICATION

DRAWING TITLE:
IMPACT MAP

DRAWING NO:
FIGURE D

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AUG 2021	R.C.	1:12,208 @A3	01

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