Southampton to London Pipeline Project

Volume 6

Environmental Statement (Volume D)
Appendix 7.15: Draft Great Crested Newt EPS Licence Application (1 of 2)

Application Document: 6.4

Planning Inspectorate Reference Number: EN070005
APFP Regulation No. 5(2)(a)
Revision No. 1.0

May 2019

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Date: 30 April 2019
Our ref: 275438
(NATIONALLY SIGNIFICANT INFRASTRUCTURE PROJECT)

Esso Petroleum Company Limited and Jacobs

Sent by e-mail only

Dear Esso Petroleum Company Limited,

DRAFT MITIGATION LICENCE APPLICATION STATUS: INITIAL DRAFT APPLICATION
LEGISLATION: THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017 (as amended)
NSIP: Southampton to London Pipeline Project
SPECIES: Great crested newt *Triturus cristatus*

Thank you for your subsequent draft GCN mitigation licence application in association with the above NSIP site, received in this office on the 01/03/2019. As stated in our published guidance, once Natural England is content that the draft licence application is of the required standard, we will issue a 'letter of no impediment'. This is designed to provide the Planning Inspectorate and the Secretary of State with confidence that the competent licensing authority sees no impediment to issuing a licence in future, based on information assessed to date in respect of these proposals.

Assessment

Following our assessment of the resubmitted draft application documents, I can now confirm that, on the basis of the information and proposals provided, Natural England sees no impediment to a licence being issued, should the DCO be granted.

However, please note the following issues have been identified within the current draft of the method statement that will need to be addressed before the licence application is formally submitted. Our wildlife adviser, Cassandra Jackson, discussed this matter with David Jones and Laura Gore of Jacobs via e-mail correspondence on 25/04/2019 where it was confirmed that the necessary amendments would be made. Please do ensure that the Method Statement is revised to include these changes prior to formal submission. For clarity these include:

Please see attached 'LICENSING CONSULTATION ON THE FAVOURABLE CONSERVATION STATUS (FCS) TEST AS PART OF THE PRE-SUBMISSION SCREENING SERVICE'

Next Steps

Should the DCO be granted then the mitigation licence application must be formally submitted to Natural England. At this stage any modifications to the timings of the proposed works, e.g. due to ecological requirements of the species concerned, must be made and agreed with Natural England before a licence is granted. Please note that there may be a charge for the formal licence application determination, should the DCO be granted, or the granting of any licence.

If other minor changes to the application are subsequently necessary, e.g. amendments to the work schedule/s then these should be outlined in a covering letter and must be reflected in the formal submission of the licence application. These changes must be agreed by Natural England before a licence can be granted. If changes are made to proposals or timings which do not enable us to meet reach a 'satisfied' decision, we will issue correspondence outlining why the proposals are not acceptable and what further information is required. These issues will need to be addressed before any licence can be granted.

Full details of Natural England's licensing process with regards to NSIP's can be found at the following link:

http://webarchive.nationalarchives.gov.uk/20140605090108/http:/www.naturalengland.org.uk/Images/wml-g36_tcm6-28566.pdf

As stated in the above guidance note, I should also be grateful if an open dialogue can be maintained with yourselves regarding the progression of the DCO application so that, should the Order be granted, we will be in a position to assess the final submission of the application in a timely fashion and avoid any unnecessary delay in issuing the licence.

I hope the above has been helpful. However, should you have any queries then please do not hesitate to contact me.

Yours sincerely

Cassandra Jackson
Wildlife Management Lead Adviser
Natural England Wildlife Licensing Service
0208 225 6858
07827 356 489

Annex - Guidance for providing further information or formally submitting the licence application.

Important note: when submitting your formal application please mark all correspondence 'FOR THE ATTENTION OF Cassandra Jackson

Submitting Documents.

Documents must be sent to the Customer Services Wildlife Licensing (postal and email address at the top of this letter).

Changes to Documents –Reasoned Statement/Method Statement.

Changes must be identified using one or more of the following methods:

- underline new text/strikeout deleted text;
- use different font colour;
- block-coloured text, or all the above.

Method Statement

When submitting a revised Method Statement please send us one copy on CD, or by e-mail if less than 5MB in size, or alternatively three paper copies. The method statement should be submitted in its entirety including all figures, appendices, supporting documents. Sections of this document form part of the licence; please do not send the amended sections in isolation.

Customer Feedback – EPS Mitigation Licensing

To help us improve our service please complete the following questionnaire and return to:

Customer Services, Natural England, First Floor, Temple Quay House, 2 The Square, Bristol, BS1 6EB.

Fax: 0845 6013438 or email to wildlife@naturalengland.org.uk

http://www.naturalengland.org.uk/ourwork/regulation/wildlife/default.aspx

Natural England Reference Number (optional):	Please tick to indicate your role:	Consultant Developer (Applicant/Licensee)	☐ ☐

1. How easy was it to get in contact with the Wildlife Management & Licensing team of Natural England?

Difficult (1) ☐ *OK (2)* ☐ *Easy (3)* ☐ *Very Easy (4)* ☐

If 1 please specify who you initially contacted in relation to your issue/enquiry?

2. Please tell us how aware you were (BEFORE you contacted us) of wildlife legislation and what it does/does not permit in relation to your enquiry?

Unaware (1) ☐ *Very Limited Awareness (2)* ☐ *Partially Aware (3)* ☐ *Fully Aware (4)* ☐

3. How would you rate the service provided by Natural England?

	Poor 1	*Fair* 2	*Good* 3	*Excellent* 4	*Not applicable*
Ease of completion of application	☐	☐	☐	☐	☐
Advice provided by telephone (if applicable)	☐	☐	☐	☐	☐
Our web site (if applicable)	☐	☐	☐	☐	☐
Clarity and usefulness of published guidance	☐	☐	☐	☐	☐
Helpfulness and politeness of staff	☐	☐	☐	☐	
Advice and clarity of explanations provided during Method Statement assessment	☐	☐	☐	☐	☐
Advice and clarity of explanations provided during Reasoned Statement assessment	☐	☐	☐	☐	☐
Speed of process	☐	☐	☐	☐	
Overall service	☐	☐	☐	☐	

If 1 or 2 to any of the above please specify why:

4. Was your issue/enquiry resolved by the activity authorised under licence or advice provided by us?

Fully ☐ *Partially* ☐ *Unresolved* ☐

If not fully resolved please state what you think could have been done instead (note legislation affects which actions can be licensed):

5. Was there a public reaction to any action taken under the licence or as a result of our advice?

Positive support ☐ *No reaction* ☐ *Negative reaction* ☐

6. Would you use a fully online licensing service if it could be made available in the future?

Definitely ☐ *Possibly* ☐ *Unlikely* ☐ *No* ☐

7. Do you have any further comments to make or suggestions for improving our service, if yes please specify (continue comments on an additional sheet if necessary). *If you are happy to be contacted at a later date to explore possible improvement options, please tick this box* ☐ *and ensure your Natural England reference number is at the top of this page.*

EUROPEAN PROTECTED SPECIES

LICENSING CONSULTATION ON THE FAVOURABLE CONSERVATION STATUS (FCS) TEST AS PART OF THE PRE-SUBMISSION SCREENING SERVICE

GREAT CRESTED NEWTS (*Triturus cristatus*)

Applicant:	TBC, Esso Petroleum Company, Limitied		
Ecologist:	TBC		
Site name:	Southampton to London Pipeline (SLP), Boorley Green to Hounslow, Hampshire and Surrey		
Case reference number:	**EPSA:** n/a	**Grid reference**	SU511143 to TQ070734
Application type	☒ 1st draft application ☐ Subsequent draft application		
Date 1st draft application received by Adviser:	-	**Adviser's response deadline:**	-
Date subsequent draft application received by Adviser:	-	**Adviser's response deadline:**	-

The Conservation of Habitats and Species Regulations 2010 (as amended)

The appropriate authority shall not grant a licence under regulation 53(9)(b) unless they are satisfied that actions authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

1. Experience

Is the experience written in the application form and attached written references adequate for the proposed work?

Yes ☐ No ☒

- *Experience will usually be taken as adequate if the ecologist has held or been named on a licence in the past three years for the same species and in relation to a project of a similar scale, methodology and mitigation.*
- *A licence to carry out survey work is <u>not</u> considered to be a similar licence.*
- *A new applicant must provide a description of their work experience with great crested newts and include <u>two</u> written references, both of which must contain specific detail of the referees own experience with great crested newts (including licence numbers) and their knowledge of relevant work carried out by the applicant. Please refer to document WMLG05 – link provided above.*
- *At least one of the written references must be from a person who held or been named on a licence in the past three years for the same species and in relation to a project of a similar scale, methodology and mitigation. Details of this licence must be provided.*

If 'NO' please address the following:

Ecologist information to be submitted within formal application. Please see section 10 of the application form for more details.

2. Survey

Has an adequate and appropriate survey of the site been carried out in relation to the proposed objectives?

Yes ☐ No ☒

An adequate survey will include:

- *Details of the area and habitat that was surveyed;*
- *An appropriate scaled map(s) of:*
  i) The area where the great crested newts will be affected by the proposed work,
  ii) The proposed area where mitigation will occur (if applicable), and
  iii) Adjoining sites if part of a phased or multi-plot development or other great crested newt mitigation licences are held in those areas;
- *The survey methods used;*
- *The name/s of the surveyor/s who undertook the work;*
- *Dates and weather conditions when the surveys were carried out; and*
- *Clearly presented survey results (for each method used) cross-referenced to areas on the map(s).*

If 'NO' please address the following:

B1.2 – Figure has not been submitted to show the location of other nearby GCN mitigation sites to show development boundaries and compensation/mitigation areas.
To be submitted as part of the formal application.

Figure C3.2a- Page 25 – Ponds 108a-d seem to have been mislabelled as 180a-d. Please confirm.
New data submitted 17/04/2019- SATISFIED

C3.4: 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.
New data submitted 17/04/2019- SATISFIED

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

Ponds 5, 12a, 22a 77, 78 and 191 – Natural England's published timeframes for taking eDNA samples has not been adhered to as confirmed within the method statement.
Deviation from the guidance should be fully justified within the Method statement or the supporting documents.
New data submitted 17/04/2019- SATISFIED

C4.3:
Number of bottle traps per pond needs to be added
Acknowledge any survey constraints e.g. low detectability warnings, deviation from survey recommendations in the GCNMG (methodology, timings, effort) etc.
Timings of the population size class assessment surveys for all ponds deviate from the GCNMG.
New data submitted 17/04/2019- SATISFIED

3. Impacts

Are the impacts of the development on the population fully described?

Yes ☒ No ☐

Impacts of the development on the great crested newt population should be described as if taking place in the absence of mitigation:

- *Details of the areas and habitat types that will be lost to the development should be included;*
- *For phased or multi-plot developments impacts for all phases should be detailed in a separate master plan, to be provided as a separate document - please refer to and follow WML-G11(* link above). *Each individual method statement should only contain details of the impacts from that development proposal; and*
- *The population must be considered in context of the local or regional population of great crested newts.*
- *Post development impacts*

If 'NO' please address the following:

n/a

4. Methodology

Is the proposed methodology of the work programme suitable to meet the stated objectives in the application form?

Yes ☐ **No** ☒

Suitable methodology will include:

- *A clear description of the licensable operations e.g. capture and exclusion, translocation;*
- *Details of the proposed methods and techniques; and*
- *A detailed timetable of the proposed works pertaining to all licensable activities and mitigation, including disturbance /destruction of great crested newt habitat.* ***This should be realistic and updated for each submission.***

The above must correspond with the details contained within the application form.

If 'NO' please address the following:

WML-A14-E6a&E6b:

Receptor site terrestrial habitat works: to be completed prior to capture and exclusion works.
Hand searches: Confirm to only be carried out in the active season
Destructive searches: Confirm to only be carried out in the active season.
Site checks and maintenance: Timing of the site maintenance should match the time when the fence line is installed.

Changes agreed to and new work schedule to be submitted as part of the formal application SATISFIED.

5. Mitigation

Is the mitigation proposed adequate with respect to the habitat which will be lost?

Yes ☐ **No** ☒

Adequate mitigation will include details of:

- *Habitat creation, modification and/or restoration (including areas and habitat types);*
- *Post-development habitat management;*
- *Post-development habitat maintenance;*
- *Post-development population monitoring; and*
- *Details of any mechanism in place for ensuring delivery (e.g. a Section 106 agreement).*

It will also include scaled drawings, plans and/or maps and photographs, as appropriate.

If 'NO' please address the following:

E3.2 – The habitats to be reinstated / restored / enhanced do not add up to the 24.2 Ha to be lost. Please clarify if any habitats have been removed from these calculations.
Clarified over email on the 17/04/2019. SATISFIED.

6. Additional Comments and Advice

Please note that until all matters have been resolved the FCS test cannot be satisfied. However, Natural England is satisfied in principal and all changes have been agreed by Jacobs.

7. Conclusion in respect of regulation 53(9)(b) for the FCS test:

Satisfied ☐
Not satisfied ☒

Assessed by Wildlife Adviser: Cassandra Jackson	**Date: 30.04.2019**

Disclaimer: The advice provided within the Discretionary Pre-submission Screening Service is the professional opinion of the Natural England adviser. It is not intended to represent the corporate position of Natural England nor bind Natural England in any way in the future. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

The Conservation of Habitats and Species Regulations 2017

Licence Application Form

Mitigation Licensing – Great Crested Newts

Please Note – Applications can be completed online.
For more information please visit our website.

- Please complete this application form using **dark ink** and BLOCK CAPITALS.
- Return the completed form to the address shown.
- All questions should be answered as appropriate. Questions marked with '*' are mandatory and failing to complete these may result in delays to your application.
- If there is insufficient space for completing answers on this form, please attach a separate sheet.
- Natural England will aim to determine the outcome of a completed licence application within its published service standards.
- If you experience any problems completing this application or using the online Case Work Management (CWM) system – please see our website for guidance or contact Wildlife Licensing.
- Additional guidance is provided in Using CWM – Applicant Guidance Document. This can be downloaded from our website or a copy can be requested from Wildlife Licensing.

Wildlife Licensing
Natural England
Horizon House
Deanery Road
Bristol, BS1 5AH.
T. 020802 61089
EPS.Mitigation@naturalengland.org.uk

For Office Use Only

CWM Ref No:

Charter Deadline:

1. Applicant Details

Please enter the details of the person or company who will become the licensee.

(For guidance please see attached annex)

- *If the applicant **is** already registered as a customer please complete Registered Applicant Details (a)*
- *If the applicant **is not** already registered as a customer please complete the New Applicant Registration (b)*

(a) Registered Applicant Details

*Customer Number	*Surname	*Forename	*Postcode
	TBC		

(b) New Applicant Registration

Please note: If you are the agent / named ecologist registering on behalf of the applicant you will need to provide their full authorisation with this application.

*Email Address

*Title (please tick as appropriate) Mr ☐ Mrs ☐ Ms ☐ Other ☐ (Please Specify)

*Forename	Middle Name	*Surname

Professional Membership (e.g. CIEEM, IEMA, etc)

House Name / No.	
*Address Line 1	TBC
*Address Line 2	
Address Line 3	
Town	
*County	
*Postcode	
Country	

Either 'Telephone No.' or 'Mobile No.' must be completed.

Telephone No.	TBC
Mobile No.	
Fax no.	
*Customer Type *(e.g. Farmer, Householder, Ecologist, etc.)*	Oil pipeline operator
*Are you VAT registered?	Yes ☑ No ☐ If 'Yes' VAT Number: TBC
*Are you registered with the Rural Payments Agency?	Yes ☐ No ☑ If 'Yes' RPA SBI Number:

(c) If you are registering on behalf of an organisation please complete this section.

*Position	
*Organisation Name	Esso Petroleum Company, Limitied

What is the size of your organisation?

- ☐ Micro (1 to 10 employees)
- ☐ Small (11 to 49 employees)
- ☐ Medium (50 to 249 employees)
- ☑ Large (250 employees or more)

What is the legal status of your organisation? *(e.g. private limited company, registered charity, voluntary organisation, Government agency, Local Authority)*	private limited company
Companies House Registration or Registered Charity Number:	

(d) Alternative Applicant Contact Details

In the event that the applicant is unavailable to discuss the application, it would be helpful if alternative contact details could be provided. By completing this section you are confirming that this contact is authorised to act on behalf of the applicant.

Name:	TBC
Tel Number:	
Email Address:	

2. Named Ecologist Details

Please enter the details of the named ecologist. Please note a named ecologist is required for all development and mitigation applications *(For guidance please see attached annex)*

- *If the ecologist **is** already registered as a customer please complete Registered Named Ecologist Details (a)*
- *If the ecologist **is not** already registered as a customer please complete the New Named Ecologist Registration (b)*
- *If there will not be an ecologist used in conjunction with this application please go to the next section.*

(a) Registered Named Ecologist Details

*Customer Number	*Surname	*Forename	*Postcode
TBC			

(b) New Named Ecologist Details

Please note: If you are the applicant registering on behalf of the agent / named ecologist you will need to provide their full authorisation with this application.

*Email Address

*Title (please tick as appropriate) Mr ☐ Mrs ☐ Ms ☐ Other ☐ (Please Specify)

*Forename	Middle Name	*Surname

Professional Membership (e.g. CIEEM, IEMA, etc)

House Name / No.

*Address Line 1

*Address Line 2

Address Line 3

Town | *County

*Postcode | Country

Either 'Telephone No.' or 'Mobile No.' must be completed.

Telephone No. | Mobile No.

Fax no.

*Customer Type *(e.g. Farmer, Householder, Ecologist, etc.)*

*Are you VAT registered? Yes ☐ No ☐ If 'Yes' VAT Number:

*Are you registered with the Rural Payments Agency? Yes ☐ No ☐ If 'Yes' RPA SBI Number:

(c) If you are registering on behalf of an organisation please complete the following.

*Position

*Organisation Name Esso Petroleum Company, Limited

What is the size of your organisation?

- ☐ Micro (1 to 10 employees)
- ☐ Small (11 to 49 employees)
- ☐ Medium (50 to 249 employees)
- ☑ Large (250 employees or more)

What is the legal status of your organisation?
(e.g. private limited company, registered charity, voluntary organisation, Government agency, Local Authority)

private limited company

Companies House Registration or Registered Charity Number

(d) Alternative Named Ecologist Contact Details

In the event that the named ecologist is unavailable to discuss the application, it would be helpful if alternative contact details could be provided. By completing this section you are confirming that this contact is authorised to act on behalf of the named ecologist and has a detailed knowledge of the application.

Name:

Tel Number:

Email Address:

3. Communication Preferences

Please indicate who should be contacted if we need to discuss this application:
(please note more than one option can be selected for each question):

Applicant ☐ Named Ecologist ☑

Please indicate to whom the outcome documentation for this application should be sent:

Applicant ☐ Named Ecologist ☑

Applicant preferences:

Email ☑ Post ☐ Telephone ☐

If 'Yes' for telephone, please provide a contact no.

Named Ecologist preferences:

Email ☑ Post ☐ Telephone ☐

If 'Yes' for telephone, please provide a contact no.

4. Previous Applications

(a) * To your knowledge, have there been any previous applications or licence decisions concerning this site? Yes ☐ No ☑

If 'No' please move to question 4(g). If 'Yes' to (a), please complete the following.

(b) * Date of most recent application:

(c) * Which species was the subject of the previous application?

(d) * What was the application or licence reference number?

(e) * What was the outcome of the previous application? (Please select one of the following)

Granted ☐ Not Granted ☐ Advice Only ☐ Deferred ☐ Not Yet Known ☐

(f) To your knowledge, does this application relate to any previously licensed 'mitigation' work on the site being applied for? Yes ☐ No ☐

If 'Yes' to (f): Please provide application/licence reference numbers, species details and outcome details.

(g) To your knowledge, is the site being applied for subject to any recent, concurrent, pending or future applications for licences for the same or other European protected species or other protected species? Yes ☑ No ☐

If 'Yes' to (g): Please provide application/licence reference numbers and species information.

Licences for sand lizard, dormice and badgers would be required. Draft licence applications have been submitted to Natural England. Draft licenses would also be submitted to the Planning Inspectorate in support of the application for development consent.

For applications which are part of the Pre-Submission Screening Service:

More information on Natural England's Pre-Submission Screening Service can be found here.

Is this a first draft application? Yes ☑ No ☐ Is this a subsequent draft? Yes ☐ No ☐

Are you aware if your case has been seen or reviewed by Natural England? Yes ☐ No ☑ Not Sure ☐

If yes, who provided the advice and when:

Any further information you would like to provide:

Dave Jones (the project's lead ecologist) met with Cassandra Jackson on 29th January 2019 during which there was a high level discussion with respect to the project's anticipated impacts to GCN and the scope of this draft licence application.

Is this a formal application? Yes ☐ No ☑

Please provide any earlier reference numbers:

For applications which are part of Nationally Significant Infrastructure Projects:

Is this a first draft application? Yes ☐ No ☐ Is this a subsequent draft? Yes ☐ No ☐

Is this a formal application? Yes ☐ No ☐

Please provide any earlier reference numbers

5. Purpose

(a) * Please provide a brief description of your proposal (E.g. Construction of a new road, maintenance of a bridge, construction of five flats with access road and car parking area).

Esso is planning to replace 90km of pipeline between Boorley Green and the Esso West London Terminal storage facility in Hounslow. The areas of land to be permanently or temporarily used for the

(b) * Please tell us why you need a licence. (E.g. Great Crested Newt breeding ponds will be damaged, destruction of two known breeding ponds).

Suitable GCN terrestrial habitat within 250m of confirmed GCN ponds will be temporarily damaged or destroyed by the installation of the pipeline. There is potential for GCN to be killed or injured during installation

(c) * Please confirm the purpose of the application (Please select one of the following):

☑ Imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment under section 55(2)(e)
☐ Preserving public health or public safety, under section 55(2)(e)
☐ Preventing the spread of disease, under section 55(2)(f)
☐ Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber, fisheries or inland waters, or any other form of property under section 55(2)(g)
☐ A purpose not specified in Regulation 55(2) that is consistent with Article 16(1)(e) of the Habitats Directive, under section 55(4)

(d) * Please confirm the category most appropriate to your proposed work (Please select one of the following):

☐ Agriculture / Fishing / Forestry
☐ Archaeological investigation / Site investigation
☐ Barn Conversion
☐ Commercial
☐ Communications
☐ Energy generation
☐ Energy supply
☐ Flood and coastal defences
☐ Health & Safety
☐ Heritage
☐ Housing
☐ Industrial / Manufacturing
☐ Mineral extraction
☑ Nationally Significant Infrastructure Projects
☐ Places of worship
☐ Public community projects (e.g. schools, universities, hospitals, care facilities and other public buildings)
☐ Small scale repair and maintenance works
☐ Transport
☐ Waste management
☐ Water management
☐ Other

If other, please provide details here:

(e) * Is the proposed work part of a phased or a multi-plot development? Yes ☐ No ☑

If 'Yes' to (e): You must submit a species specific master plan and Habitat Management and Maintenance Plan with this application, as a separate document. Guidance on what should be included in a master plan can be found at – http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/Images/WML-G11_tcm6-9930.pdf

6. Site Details

* Is the address for the site to be licensed different to the applicant's address? Yes ☑ No ☐

If 'Yes': For the Site / Location to be licensed, please complete **all** of the following details:
If 'No': Please complete Site / Location Name and OS Grid Reference boxes only.
(For linear projects, please add the start and end points separately)

	Site Details
*Site / Location Name:	Southampton to London Pipeline (SLP)
House No:	
Address Line 1:	
Address Line 2:	
Address Line 3:	
Town:	Boorley Green to Hounslow
*County:	Hampshire and Surrey
Postcode:	
*OS Grid Reference: *(In format XX123456)*	SU511143 to TQ070734

7. Conservation Considerations

(a) *Will any part of the proposed activity fall in and/or adjacent to a Designated Site? Yes ☑ No ☐ N/A ☐

If 'Yes' to (a) please complete the table below. If 'No', please go to the next section.

Please indicate whether the activity will fall on and/or adjacent to a designated site:	Designated Site Name:	Type of Designated Site *E.g. National Nature Reserve (NNR), Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar Site, Ancient Monument, Marine Nature Reserve (MNR), Area of Outstanding Natural Beauty (AONB)*
On ☑ Adjacent to ☐	Thursley, Ash, Pirbright and Chobham	Special Area of Conservation
On ☑ Adjacent to ☐	Chobham Common	Site of Special Scientific Interest (SSSI) and National Nature Reserve
On ☑ Adjacent to ☐	Bourley and Long Valley	SSSI
On ☑ Adjacent to ☐	Colony Bog and Bagshot Heath	SSSI
On ☑ Adjacent to ☐	Thames Basin Heaths	Special Protection Area
On ☐ Adjacent to ☑	Eelmoor Marsh	SSSI

(b) Have you consulted with Natural England for advice on the implications of the application on the designated site? Yes ☑ No ☐ Not Known ☐

(c) Please give either the outcome of your consultations or the reason why you have not consulted us. Please provide any relevant correspondence and the name of the local Natural England adviser or reserve manager consulted.

Marc Turner has been providing advice with respect to statutory designated sites. Site-specific advice has been provided by Ian McConnell, Des Sussex and Graham Steven. An assessment of the project's impacts to

8. Authorisation

(a) * Is the applicant the owner / occupier of the land? Yes ☐ No ☑ N/A ☐

If 'Yes' to (a) please go to the next section. If 'No' to (a) please answer (b).

(b) Have you received the owner occupier's permission to apply? Yes ☐ No ☑

Please note that it is your responsibility as the applicant to obtain the owner or occupier's permissions to act under licence on their property.

You may be asked to provide documentation which confirms that you have owner or occupier's permissions and we will contact you if this is necessary.

9. Application Details

(a) Please add details for all licensable actions you wish to perform:

	Licensable Action
Application Subject	*Great Crested Newts*
Species	*Great Crested Newt*
* Activity	☑ Capture ☑ Disturb ☑ Transport ☐ Damage breeding site ☐ Destroy breeding site ☑ Damage resting place ☑ Destroy resting place
* Method or Field Technique	☑ By hand ☑ Hand search ☑ Destructive search ☐ Bottle trapping ☐ Netting ☑ Pitfall trapping and refuges ☐ Draining down and destruction of ponds ☐ Night / torch searching ☑ Refugia only ☐ Exclusion by permanent amphibian fencing ☐ Exclusion by permanent one-way amphibian fencing ☑ Exclusion by temporary amphibian fencing ☐ Exclusion by temporary one-way amphibian fencing ☑ Drift fencing
* Number of breeding sites to be impacted:	0
Please enter the proposed start date of action below. *Please note this refers to the date of the first licensable action, not necessarily when the development commences.*	
* Proposed Date From	TBC but potentially 2020 based on the granting of developmer

(b) * Have you sent your records to the Local Records Centre Yes ☑ No ☐

Please note: You must send survey data and habitat assessment data to your Local Records Centre (LRC). It is a condition of survey licences that records are sent to LRCs annually or to other organisations as specified on a particular survey licence (e.g. People's Trust for Endangered Species).

10. Experience

Please note: For guidance in completing this section please refer to the Experience in Great Crested Newt Mitigation document at http://webarchive.nationalarchives.gov.uk/20140605090108/http:/www.naturalengland.org.uk/Images/wmlg05_tcm6-4115.pdf

(a) * Has the named ecologist associated with this application held or been named on a licence in the past three years for the same species and in relation to a project of similar scale, methodology and mitigation? Yes ☑ No ☐

If 'Yes' to (a)...

(b) * Please provide the name of the issuing authority, the licence reference number and date of issue for licenses held: TBC

If 'No' to (a) please complete the following section. If "Yes" to (a) go to the next section.

(c) * Does the named ecologist currently hold a valid personal survey licence or are they registered to use a class survey licence for the same species?

Yes ☑ If 'Yes' complete **all** of the following.

No ☐ If 'No' go to (f)

(d) * What is/are the survey licence reference number(s)?

(e) * Number of years the survey licence(s) have been held

(f) * Please give brief details of the named ecologist's current science, education or conservation licence or any other licences issued to the ecologist in the last three years relevant to the species relating to this application:

(g) * Please give brief details of the named ecologist's experience on mitigation projects relevant to the species relating to this application, including in what capacity they acted. State the site names and reference numbers of licences and the type of mitigation involved:

(h) * Please provide details of the named ecologist's Qualifications, including any Continual Professional Development (CPD) training relevant to the species relating to this application:

Please note: If you have not held a mitigation licence in the last three years you will need to provide written references from two people who are familiar with the named ecologist's work. Please attach these references with your application. References provided in support of your licence application should:

- *Vouch for the named ecologist's suitability and competence to prepare and deliver mitigation projects;*
- *state how long referees have known the named ecologist and in what capacity;*
- *provide details of the named ecologist's mitigation experience with the relevant species or a related species; and*
- *provide details of the referees' own mitigation experience and mitigation licence held (if appropriate): at least one referee must have held a mitigation licence within the last 3 years.*

(i) * Are you providing references? Yes ☐ No ☐

If 'Yes' to (i): Please provide details of the referees. We may need to contact these referees to verify their statements.

1st Referee:

2nd Referee:

11. Consent Status

(a) * Is any consent required for your proposed project and the subject of this licence application?

☑ 1. Planning-related consent required (e.g. Planning permission, listed building consent, etc)

☐ 2. Demolition consent (under Building Act 1984) including prior notice to demolish.

☐ 3. Other type of consent required (e.g. Minerals consents, Highway Act consents, Secretary of State Decision Letter, Compulsory Purchase Order, Environment Agency Consent, etc.)

☐ 4. Permitted Development (under Town and Country Planning Act 1990) - no specific consent required.

☐ 5. No consent required (e.g. Public Health and safety issues)

If '3' is selected	(b) * Please provide details of these consents	Development Consent Order
If '5' is selected	(c) * Please explain why no consent is required	

If '1', '2' or '3' is selected (d) Have you obtained the necessary consent(s) to allow the proposed activity to be commenced? Yes ☐ No ☑

- *If 'No' to (d), please complete 'Consent Not Obtained'*
- *If 'Yes' to (d), please complete 'Consent Obtained'*

Consent not obtained

Please explain why you are applying in advance of the granting of consent that would allow the development to commence and what the circumstances are (e.g. Site investigation work which is required to inform the planning consent decision and where, after avoidance measures, the risk of affecting a European Protected Species is high). Please note that your application is unlikely to be processed until this issue has been resolved.

(e) *Please provide details of the outstanding consents to be obtained and the likely timescales for their determination/issue.	An application for development consent will be submitted to the Planning Inspectorate in 2019.

Pre-Submission Screening Service

We will provide advice on draft applications, prior to consents being in place and prior to a formal licence application being submitted through this chargeable service. We **strongly** advise customers to use this service rather than trying to pursue a licence under Exceptional Circumstances, particularly where there are concerns about financial implications resulting from delays in obtaining a licence once planning consents are in place. Please see our website for further advice about this.

Consent obtained

(f) Please confirm details of all the consents that have been granted relevant to the proposed activity and this licence application.

Full Planning Permission	☐	Outline Planning Permission	☐
Demolition Consent (under Building Act 1984) including prior notice to demolish.	☐	Conservation Area Consent	☐
Listed Building Consent	☐	Tree Preservation Order	☐
Highways Act Consent	☐	Utilities Consent	☐
Mineral Consent	☐	Mineral Consent with Review of Mineral Planning Permission	☐
Mineral Consent (Review of Mineral Planning Permission submitted to Mineral Planning)	☐	Other consent type	☐

Other Consent Type

(g) Please provide consent reference number(s)

Please submit copies of the consents (or extracts) that are relevant to the proposed activity and this licence application, if applicable.

(h) For all consents that have been granted, have all conditions or Reserved Matters relating to wildlife species and habitat issues (which are intended to be and are capable of being discharged before development begins) been discharged?

Yes ☐ No ☐

*If 'No' to (h), please answer **all** of the following. If 'Yes', please skip to (j).*

Please note: If it is not possible or not intended for the conditions to be discharged before development commences then please complete the questions below.

(i) Please give details of those conditions that are still to be discharged and explain why they have not been discharged.

(j) Is the site subject to any commitment that affects the protected species named in this application?

For example a Section 106 Agreement (Town and Country Planning act 1990) or other commitments made at a Public Inquiry or in an Environmental Statement.

Yes ☐ No ☑

If 'Yes' to (j): Has the commitment been met? Please also explain what has been done.

If 'Yes' to (j): What work is outstanding and when will it be completed?

(k) Is the site subject to any such commitment that affects other European Protected Species or other protected species? *E.g. a Section 106 Agreement (Town and Country Planning Act 1990) or other commitments made at a Public Inquiry or in an Environmental Statement.* Yes ☐ No ☐

If 'Yes' to (k): Has this been met?

If 'Yes' to (k): When will this be complete?

Reasoned Statement & Supporting Documents

A Reasoned Statement and supporting documents may be required in support of this application.

Copies of the latest version of the Reasoned Statement template which sets out when a Reasoned Statement is required and further guidance to help are available on our website.

Please confirm that you have read and understood the Reasoned Statement template and advice note/guidance ☑

(l) * Does your application require a Reasoned Statement? Yes ☑ No ☐

If 'No' to (l): * Please confirm the exception that applies (specify species and scenario e.g. home improvements or small scale housing developments)

12. Consenting Authority

Please provide the Local Planning Authority/Authorities that have granted consent for the proposed project and the subject of this licence application. Please then provide contact details for the responsible officer.

If consent is granted by another body (e.g. Secretary of State, Natural England, Environment Agency, Utilities Consent, Highways Consent, etc) then please provide details for it as appropriate.

If no consent is required (e.g. Public health and safety issues) then please leave the remaining fields blank.

*Consenting Authority Name	Secretary of State for Business, Energy and Industrial Strategy

*Title	*Forename	*Surname	* Position

Email Address	
Telephone Number	
Address	

13. Method Statement

A Method Statement must be provided to support this application, along with other supporting documents, which may include some or all of the following:

- Maps
- Figures
- Habitat management and maintenance plans
- Master plans
- Appended survey results
- A work schedule

Please note: The Method Statement is normally prepared by a consultant ecologist or another suitably qualified person because compiling the content requires specific species and site-related knowledge.

Further Advice: Copies of the latest versions of templates for all species and further guidance to help you complete them are available on our website.

14. Supplementary Information

Please provide any additional information you may have to support your application.

Where the main method of construction is open cut trenching and this is in a flat open landscape with no constraints, the average rate of pipeline laying is assumed to be 450m per week for trench excavation, pipe installation and backfilling of trenches. Prior to this the contractor would fence the site, strip topsoil and undertake any other pre-installation set up. At this rate of work, a 1km stretch of pipeline could be installed and covered in just over two weeks. The fencing, topsoil stripping and drainage would be completed prior to this time and could take up to three to four weeks for a 1km stretch. Works would not necessarily commence directly after topsoil had been stripped. Replacement of topsoil and replanting of vegetation would take place at a seasonally suitable time after the works had

15. Data Protection

The data controller is the Natural England, Foss House, Kings Pool, 1-2 Peasholme Green, York, Y01 7PX. You can contact the Natural England Data Protection Manager at: Natural England, County Hall, Spetchley Road, Worcester, WR5 2NP; foi@naturalengland.org.uk

Any questions about how we are using your personal data and your associated rights should be sent to the above contact. The Data Protection Officer responsible for monitoring that Natural England is meeting the requirements of the legislation is: Defra group Data Protection Officer, Department for Environment, Food and Rural Affairs, SW Quarter, 2nd floor, Seacole Block, 2 Marsham Street, London SW1P 4DF. DefraGroupDataProtectionOfficer@defra.gsi.gov.uk

The information on the licence application form and any supporting material will be used by Natural England to undertake our licensing functions. This will include, but is not limited assessing your application, issuing a licence if applicable, monitoring compliance with licence conditions and collating licence returns and reports. The personal information we will process will include, but is not limited to your name and contact details, customer type and reasons for wanting a licence. Processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the data controller. That task is to conduct the licensing functions as delegated by Defra to Natural England under Part 8 Agreement under section 78 of the Natural Environment and Rural Communities Act 2006.

The processing by us of personal data relating to wildlife-related or animal welfare offences or related security measures is carried out only under official authority. This information is used in assessing an application as it is a material fact. Natural England will for particular licence applications and at specific stages of the licencing process discuss your application with third parties. The details of this sharing are set out here
https://www.gov.uk/government/publications/wildlife-licensing-privacy-notice

Your personal data will be kept by us for 7 years after the expiry of your licence or longer if stated in the licence conditions.Failure to provide this information will mean that we will be unable to assess your application for a wildlife licence.

The information you provide is not connected with individual decision making (making a decision solely by automated means without any human involvement) or profiling (automated processing of personal data to evaluate certain things about an individual).
The data you provide will not be transferred outside the European Economic Area.
A list of your rights under the General Data Protection Regulation, the Data Protection Act 2018, is accessible at:
https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/individual-rights/
You have the right to lodge a complaint with the ICO (supervisory authority) at any time. Should you wish to exercise that right full details are available at:
https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/individual-rights/
Details of our Personal Information Charter can be found at:
https://www.gov.uk/government/organisations/natural-england/about/personal-information-charter.

Important Advice:

- **If your application is made under the Wildlife and Countryside Act 1981 (as amended) or the Conservation of Habitats and Species Regulations 2017, any person who in order to obtain a licence knowingly or recklessly makes a statement or representation, or furnishes a document or information which is false in a material particular, shall be guilty of an offence and may be liable to criminal prosecution. Any person found guilty of such an offence is liable, on summary conviction, to imprisonment for a term not exceeding six months or to a fine not exceeding level 5 on the standard scale, or to both. Regarding other wildlife legislation, we will look to provisions in the Fraud Act 2006 (as amended) in respect of applicants making any false representations.**

- **Natural England or the Secretary of State can modify or revoke at any time any licence that is issued, but this will not be done unless there is good reason for doing so. Any licence that is issued is likely to be revoked immediately if it discovered that false information has been provided that resulted in the issue of a licence**

16. Declaration

16a. Convictions

* Have you or any person listed in the application been convicted of any wildlife-related or animal welfare offence? Yes ☐ No ☑

If 'Yes': Please provide details of the convictions: *(including dates)*

N/A

The offences we are referring to relate to persons convicted on or after 1 January 2010 of an offence under the Wildlife and Countryside Act 1981, the Conservation (Natural Habitats &c.) Regulations 1994, the Conservation of Habitats and Species Regulations 2017, the Protection of Badgers Act 1992, the Deer Act 1991, the Hunting Act 2004, the Wild Mammals (Protection) Act 1996, the Animal Welfare Act 2006 and the Protection of Animals Act 1911 (all as amended). You do not have to declare conviction if the person concerned is: (1) a rehabilitated person for the purposes of the Rehabilitation of Offenders Act 1974 and their conviction is treated as spent; or (2) in respect of such an offence, a court has made an order discharging them absolutely.

16b. Applicant Declaration.

☑ I have read and understood the privacy notice above.

- Where required, I undertake to obtain permission from landowners / occupiers of land to exercise any licence resulting from this application, and to allow any employee or representative of Natural England to monitor or inspect the work described in this application.
- I have read and understood the guidance provided in the application form and on the Wildlife Licensing Internet guidance pages.
- I declare the particulars given are correct to the best of my knowledge and belief, and I apply for a licence in accordance with the information I have provided.
- I confirm that there is no satisfactory alternative to meet the need/resolve the problem detailed in this application.

☑ I agree to the declaration above.

Signature of Applicant:

For electronic applications, please insert an electronic signature above or tick this box to confirm with the declaration. ☐

Name: *(In BLOCK letters)*

TBC

Date:

16c. Ecologist Declaration

☑ I have read and understood the privacy notice above.

- I confirm that I have visited the site(s).
- I have designed and inputted into the licence proposal.
- I confirm that there is no satisfactory alternative to meet the need/resolve the problem detailed in this application.
- I am satisfied that the proposal will result in no adverse impact on the species concerned.
- I declare the particulars given are correct to the best of my knowledge and belief, and the applicant may apply for a licence in accordance with information I have provided.
- I have documentary evidence that I am authorised to act on behalf of the applicant that I will supply to Natural England on request.

☑ I agree to the declaration above.

Signature of Ecologist:

For electronic applications, please insert an electronic signature above or tick this box to confirm with the declaration. ☐

Name: *(In BLOCK letters)*

TBC

Date:

17. Annex - Application Notes

Applicant

The applicant is the person submitting the application (usually the landowner or occupier) who, if the licence was granted, would become the licensee. The applicant may appoint agents to produce the application pack and act on their behalf. A person with specific skills and knowledge of the species concerned, such as a consultant ecologist, must be appointed to assist in the preparation and the delivery of the proposals that ensure the species protection requirements can be met.

Licensee

The “Licensee” named on the licence is responsible for ensuring that all activities carried out on site in relation to the licence comply with the terms and conditions of the licence. However, all persons authorised to act under the licence must comply with the licence and its conditions (see Regulation 60(1) of the 2017 Regulations). This means that all authorised persons have a responsibility for ensuring that the licence terms and conditions, including any annex special conditions, are understood and complied with. Failure to do so could lead to prosecution.

Consultant/Named Ecologist

The “Named Ecologist” is a professional ecological consultant who has satisfied Natural England that they have the relevant skills, knowledge and experience of the species concerned and is responsible for undertaking and/or overseeing the work undertaken in respect of the licensed species. The ‘Named Ecologist’ has a responsibility for ensuring that the licence is complied with. They are responsible for advising the licensee on the suitability and competence of any Accredited Agents or Assistants employed on site to undertake the required duties and may include the direct supervision of Assistants where appropriate. More information about the experience required to become a named ecologist can be found at: *http://webarchive.nationalarchives.gov.uk/20140605090108/http:/www.naturalengland.org.uk/Images/bat-mitigation-guidance_tcm6-10534.pdf*

Accredited Agent

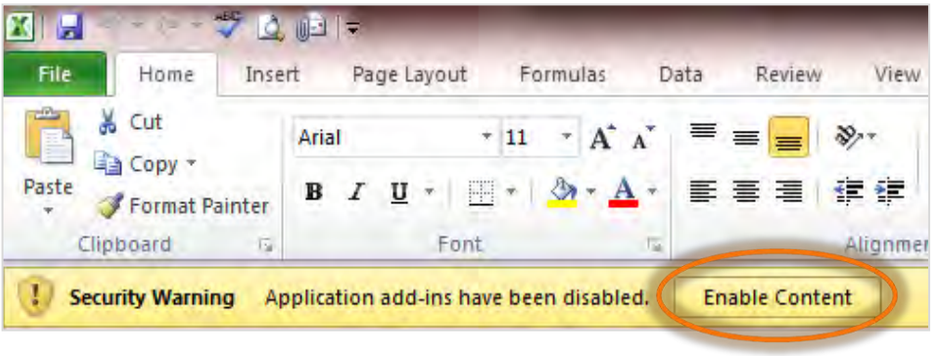
An “Accredited Agent” is a suitably trained and experienced person who is able to carry out work under a licence without the personal supervision of the Named Ecologist. Any Accredited Agent must be appointed by the Licensee and be in possession of a letter signed by the Licensee confirming their appointment. Agents shall carry a copy of the said letter when acting under the licence and shall produce it to any police or Natural England officer on request.

Assistants

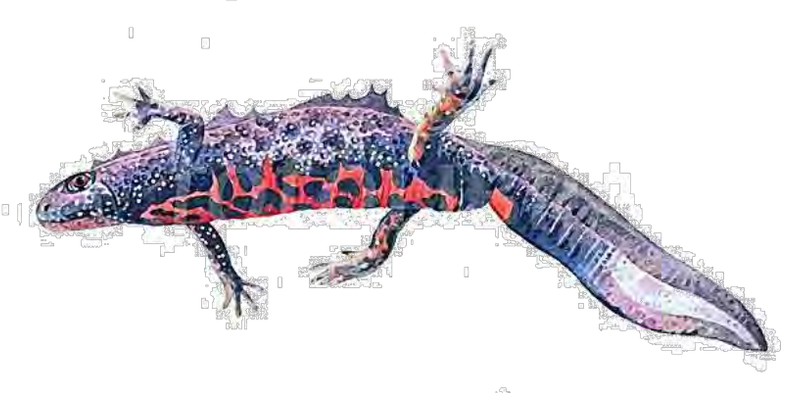
An “Assistant” is a person assisting a Named Ecologist or Accredited Agent. Assistants are only authorised to act under this licence whilst they are under the direct supervision of either the Named Ecologist or an Accredited Agent.

Great Crested Newt Method Statement for EPS licence application

Please Enable Content in the message bar, if prompted



Enabling Content on Mac looks like this...



[Begin]

Template for Method Statement to support application for licence under Regulation 53(2)e of The Conservation of Habitats and Species Regulations 2010 (as amended) in respect of great crested newts *Triturus cristatus.* *Form WML-A14-2 (Version December 2015)*

Instructions for completion of Method Statement template

Introduction

This template is designed to make the process easier for applicants, by providing standard responses where possible and by indicating optional and mandatory fields, plus making clear the level and type of information required. It will also facilitate assessment of applications, as information will be presented in a standard way. **The Macros in this workbook enable the rows to expand with the text where this is indicated, but will require the users to hit enter to leave each cell, to avoid harmless error messages appearing on screen and to ensure that the text can be seen. Please retain page scaling at 130% to avoid the text becoming obscured.**

This spreadsheet has two main sections: Instructions and advice, and the Method Statement template itself. The instructions should help you complete the Method Statement, as well as providing advice on some common areas of confusion in mitigation. These are designed to assist you in deciding whether to apply for a licence, and if you do, what kind of survey and mitigation should be proposed. Note: that this is offered as general advice and in the event of any enforcement investigation the original legislation must be referred to.

Entering information into the template

	(Pale red) Indicates mandatory fields
	(Pale green; dashed outline except in some tables) Indicates fields that are either optional or will be necessary in some cases depending on the circumstances. In many cases it is helpful to fill in green fields to provide more detail. Where the spreadsheet can detect a necessary field from data you have already given, a green field will turn red. It is your responsibility to ensure any necessary information is included.
	(Pale blue) Indicates a field that is automatically completed by the spreadsheet, based on data you have entered.
IMPORTANT: Only enter data in pale red or pale green fields. Do not enter or alter any data in other coloured fields, including whitespace, as this may affect spreadsheet function. Please do not re-format text, except to underline or make 'bold' any changes if you are submitting an amendment.	

It is your responsibility to ensure the completed template provides all information necessary for licence determination. Although we have tried to make the template as helpful as possible, some features may not be suitable for accepting the information for your scheme, and occasionally the automatic spreadsheet coding may produce unusual results. If this happens you must take care to explain the scheme on additional sheets, and not rely on the standard responses or automatic spreadsheet coding. It will not be acceptable to submit a Method Statement that provides misleading or incomplete information, and attribute such shortcomings to the template format.

Fill in the spreadsheet in order, as some data you enter is used in subsequent calculations or
Please be concise with your descriptions and keep information only to what is required.
Several questions have standard responses suitable for a maximum of 10 ponds; should your scheme involve >10 ponds provision for additional data is included in the Additional Records tab.

Viewing: You may find it helpful to **zoom in and out by scrolling your mouse wheel while holding down CTRL (or *View* > *Zoom*). Sometimes parts of a text box can appear "cut off", depending on your computer set-up. Zooming in or out may help, and all the text should be readable if you click inside the box.**

Printing: To print the whole spreadsheet: *File* > *Print...* > *Print what* > *Entire workbook.* To print selected worksheets only, select the appropriate tabs (use shift to select a continuous range, and CTRL for non-adjacent worksheets), then *File* > *Print* > *Print what* > *Active sheet(s).Please print on both sides.*

Method Statement structure

The Method Statement is divided into two sections:
(I) Background and supporting information (worksheets with lavender-coloured tabs)
(II) Delivery information (worksheets with blue-coloured tabs)
Within each section, there are subdivisions, e.g. for survey, impact assessment, etc. For modifications to

projects already licensed (non-annexed or where significant changes are proposed), or re-submissions following a Further Information Request response, when submitting a hard or an electronic copy it will currently be necessary to re-submit the document in its entirety detailing where changes have been made. If submitting re-submissions or new applications electronically, send the whole template file (plus maps and appendices) because attempting to extract worksheets will cause coding problems; in any case it is no additional effort to send the whole file. See website below for current instructions on the format of licence application submission.

https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence

Important notes on technical mitigation issues

Use the *Great crested newt mitigation guidelines* (English Nature, 2001) and information on .GOV.UK here: https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects
This template is designed to record licence application data for a range of common development scenarios. However, this does not restrict the use of novel mitigation practice, where this is appropriate. If you wish to employ a method, approach or level of effort that deviates from the standard recommendations in the guidelines, you must point this out, and provide either: (a) direct evidence from other projects or research that it is likely to be effective; or, if no direct evidence is available (b) a sound rationale for why you think it is appropriate and likely to be effective.
Note that applications that involve reductions compared to standard recommendations (e.g. reduced capture effort or habitat provisions) may only be acceptable if you provide clear logistical and ecological reasons.

Notes on licence assessment

"Development" in this Method Statement means an activity that you believe to meet the requirements of Regulation 53(2)(e). It does not refer solely to construction-related activity.
This Method Statement is the evidence on which you must demonstrate compliance with Regulation 53(9)(b) (the "favourable conservation status test"). The "no satisfactory alternative" and "purpose" tests are assessed using other criteria.
"Pond" in this Method Statement means any waterbody that is likely to be used by GCN for foraging, resting or breeding.

Application tools

(1) "Do I need a licence?" - rapid risk assessment

Background

In recent years there has been a trend towards increasingly precautionary applications, resulting from a risk-averse approach to mitigation. Whilst considering potential risks to great crested newts is laudable, many recent mitigation schemes were designed for developments that actually had very little or no effect on the newt population. In part this is because it can be difficult to assess whether newts will be affected by certain activities, especially when they take place at some distance from breeding ponds. Newts tend to be present at increasingly low density the further one looks from ponds, and the task of detecting and capturing them becomes more problematic. Further from ponds, there is a corresponding reduction in the scale of impact on populations. Given that great crested newts can disperse over 1km from breeding ponds, the potential for offences may seem vast, yet the probability of an offence outside the core breeding and resting area is often rather small, and even if an offence takes place, the effect on the population may be negligible.

Natural England is concerned about the trend for increasingly risk-averse mitigation for several reasons. Primarily, there is no legal need, and little benefit to great crested newt conservation, in undertaking mitigation where there are no offences through development. Even where there technically is an offence, such as the destruction of a small, distant area of resting place habitat, it is arguable that impacts beyond the core area often have little or no tangible impact on the viability of populations. Mitigation in such circumstances is of questionable value in conservation terms. There are, however, substantial costs: developers delay projects and spend large sums on mitigation. Sometimes the mitigation project itself has environmental costs, especially when it entails substantial lengths of newt fencing. In some cases long newt fences are

environmental costs, especially when it entails substantial lengths of newt fencing. In some cases long newt fences are employed with no justification. Natural England wishes to see newt fencing used more appropriately, i.e. only where there is a reasonable risk of capturing, containing and/or excluding newts.

Natural England recognises that the two key factors leading consultants to adopt this risk-averse approach are: (a) uncertainty over the presence of newts and whether there will be an offence in areas distant from ponds; (b) undertaking mitigation under licence "just in case", so that there is no perceived risk of litigation for their client. Natural England wishes to see mitigation planning shift away from such a highly risk-averse starting point. The domestic legislation protecting great crested newts arises largely from the Habitats Directive, which has a central aim to restore scheduled species to a favourable conservation status. A more proportionate approach to mitigation, addressing tangible impacts on populations whilst giving lower priority to negligible effects, is consistent with the aims of the Directive. The loss of the "incidental result" defence from the legislation may create a tension with this approach, but it is hoped that the guidance here will assist.

This simple risk assessment can inform the decision as to whether to apply for a licence. It remains the responsibility of the developer - normally acting through their consultant - to decide whether to apply. Early consideration of options can often result in no licence being required - see **Non-licensed avoidance measures** tool, later in the Instructions section. A sound survey and careful comparison with development plans will often be the best guide to whether a licence should be obtained.

Guidance on use

The rapid risk assessment is done by **completing the table later in the instruction section**. Consider the impacts of the development **without any licensed mitigation**. For each "component", select a likely effect from the drop-down menu. It may help to produce a map of the land marked with 100m and 250m radii around each great crested newt breeding pond, overlaid with the development boundary. The land categories refer to all land, not just that used by newts. N.B. this risk assessment is not part of your application, and there is no obligation to use it; it is a tool to help you decide whether to apply for a licence.

Each effect is assigned a notional probability of leading to an offence. Note that these are purely notional for the purpose of this generic assessment, and should not be taken as definitive in a given real case. The score takes into account that some activities (e.g. killing newts) are not entirely predictable. The maximum notional probability is then used to derive a conclusion, which is displayed as red (probability ≥ 0.65), amber (0.3-0.65) or green (<0.3) in the "risk assessment result" box. Further information on interpreting the result is given below the table. Following this, you may wish to amend details of the development, and include additional precautions (see tool later in instructions), in order to avoid impacts on newts. You can then re-select the likely effects, to re-calculate the assessment based on the modified development, in order to see whether the risk has been reduced further. This process is in line with the general approach of avoiding offences wherever possible.

Remember you should enter the likely effects as if the development were to proceed ***without any licensed mitigation*** *- i.e. no trapping or fencing, etc. This may mean, for instance, that killing newts is likely as the development would destroy areas they use (though we have taken into account in the probability score that it is often uncertain as to whether newts would be killed by development in a given location away from ponds). You should* ***consider likely effects after taking any appropriate unlicensed precautions to reduce risks*** *- e.g. groundworks during daylight only. Further guidance on this is given in the* ***Non-licensed avoidance measures*** *tool, later in the Instructions section.*

Caveats and limitations

This risk assessment tool has been developed as a general guide only, and it is inevitably rather simplistic. It has been generated by examining where impacts occurred in past mitigation projects, alongside recent research on newt ecology. It is not a substitute for a site-specific risk assessment informed by survey. In particular, the following factors are not included for sake of simplicity, though they will often have an important role in determining whether an offence would occur: population size, terrestrial habitat quality, presence of dispersal barriers, timing and duration of works, detailed layout of development in relation to newt resting and dispersal. The following factors could increase the risk of committing an offence: large population size, high pond density, good terrestrial habitat, low pre-existing habitat fragmentation, large development footprint, long construction period. The following factors could decrease the risk: small population size, low pond density, poor terrestrial habitat, substantial pre-existing dispersal barriers, small development footprint, short construction period. You should bear these mitigating and aggravating factors in mind when considering risk.

It is critical that, even if you decide not to apply for a licence, you ensure that any development takes account of potential newt dispersal. Where great crested newts are present, landuse in that area must ensure there is adequate connectivity. Retaining and improving connectivity will often involve no licensable activities.

Component	**Likely effect** **(select one for each component; select**	**Notional**

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

Guidance on risk assessment result categories

"Green: offence highly unlikely" indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, bearing in mind that this is a generic assessment, you should carefully examine your specific plans to ensure this is a sound conclusion, and take precautions (see **Non-licensed avoidance measures tool**) to avoid offences if appropriate. It is likely that any residual offences would have negligible impact on conservation status, and enforcement of such breaches is unlikely to be in the public interest.

"Amber: offence likely" indicates that the development activities are of such a type, scale and location that an offence is likely. In this case, the best option is to redesign the development (location, layout, methods, duration or timing; see **Non-licensed avoidance measures tool**) so that the effects are minimised. You can do this and then re-run the risk assessment to test whether the result changes, or preferably run your own detailed site-specific assessment. Bear in mind that this generic risk assessment will over- or under-estimate some risks because it cannot take into account site-specific details, as mentioned in caveats above. In particular, the exact location of the development in relation to resting places, dispersal areas and barriers should be critically examined. Once you have amended the scheme you will need to decide if a licence is required; this should be done if on balance you believe an offence is reasonably likely.

"Red: offence highly likely" indicates that the development activities are of such a type, scale and location that an offence is highly likely. In this case, you should attempt to re-design the development location, layout, timing, methods or duration in order to avoid impacts (see **Non-licensed avoidance measures tool**), and re-run the risk assessment. You may also wish to run a site-specific risk assessment to check that this is a valid conclusion. If you cannot avoid the offences, then a licence should be applied for.

(2) Conversions

Return to Impact assessments

All area figures in this Method Statement template should be entered in hectares, to allow consistent calculations. Some ecologists prefer to work in m², especially for smaller figures such as pond surface areas. Use this tool to easily convert between the two units.

Enter area in m²:		=	0.0000	ha
Enter area in ha:		=	0	m²

(3) Non-licensed avoidance measures

Background

Licensable activities should ideally be designed out of developments during the early planning stages. This should result in avoiding harm to great crested newt populations, and can save developers the time and expense of licensed mitigation measures. Many potentially licensable activities can in fact be avoided by careful planning of the development combined with simple precautionary measures. In many cases, adopting such an approach may mean that no licence is required (as no offence would be committed). Even when a licence is applied for because you decide an offence is likely, such measures can still be employed to reduce the level of harm to newt populations. This application tool helps you to plan non-licensed avoidance measures for common development scenarios. You may also use them in licensed projects to reduce impacts.

Guidance on use, caveats and limitations

Check the list below for suggestions for avoiding impacts that might be appropriate for your project. You can use this in combination with the "Do I need a licence? Rapid risk assessment" tool to help you plan mitigation and decide on whether to apply for a licence. For schemes that cover a large area, you might use these tools to decide that only part(s) of the development should be subject to a licence. This section is based on an examination of approaches considered in recent projects, and is obviously generic. The suggestions may not be appropriate for your particular development, or may require fine-tuning to be helpful. Neither are they exhaustive: **we encourage you to develop your own ideas and let us know** so that we can include them in future guidance.

that we can include them in future guidance.

If you determine that no offences would be committed and therefore decide not to apply for a licence, it may be useful to keep a copy of the decision-making steps, and any precautions that will be taken. In some cases these might form the basis of a non-licensed method statement, to help a developer and their contractors understand how to carry out works with a minimal risk of breaching the law. If soundly produced, this might act as an audit trail and a "defence" in the event of any future queries about the development's effects on newts. Similarly, if you use these tools to determine that only part(s) of the development area should be subject to a licence, then it is helpful to include this rationale in the licence application, so that we can see why and how you have included and excluded particular areas in the licensed work.

Project element	Suggestions for avoidance measures
Location & layout	(a) Locate site as far as possible from potential breeding ponds and high quality terrestrial habitat. (b) Locate in areas subject to high pre-existing fragmentation. (c) Locate on hard, compacted ground with few fissures. (d) Design layout so that any hard landscaping is as far as possible from ponds, with retained habitat and soft landscaping toward ponds.
Timing & duration	(a) Restricting works to the winter period (when newts are rarely active above ground) is sensible if the project would not harm hibernation habitat. Projects with temporary habitat disruption and reinstatement, such as some pipelines, could potentially be carried out without any licensable activity in this way. (b) Keep duration of groundworks as short as possible. (c) Undertake during the day works that might only affect newts above ground.
Construction methods and special precautions	(a) Backfill trenches and other excavations before nightfall, or leave a ramp to allow newts to easily exit. (b) Raise stored materials (that might act as temporary resting places) off the ground, e.g. on pallets. (c) For pipelines, use directional drilling to cross areas of core habitat and dispersal routes. (d) Avoid installing structures that act as barriers close to ponds, or include gaps at ground level where walls or fences are unavoidable.

(4): Survey data - what kind, how much, how old?

Background

Survey data are essential for any mitigation licence application. Consultants frequently seek advice on requirements for the level of effort, type of survey and age of survey data. The answer to this is that sufficient data need to be provided to demonstrate the level of impact on the population, plan effective mitigation, and allow an assessment of development and mitigation effects. Data requirements will be proportionate to the level of impact of the development. Clearly these will vary from case to case. *The Great crested newt mitigation guidelines and .GOV.UK*

(https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects)
provide general comments and technical advice on methods. This application tool provides further guidance to assist with planning pond survey effort and Method Statement preparation. It deals only with standard newt pond surveys and Habitat Suitability Index (HSI) assessments. Other kinds of surveys, e.g. terrestrial newt surveys, may be appropriate either as a substitute or in addition, depending on the situation.

Guidance on use, caveats and limitations

Using the **table further down the instructions section in *Survey Guidance Table*** , check the likely type of impact that your development would have, and then read across to see which types of surveys are indicated. The table is divided into permanent and temporary habitat loss; the latter occurs when there is rapid reinstatement to appreciably similar conditions following development (e.g. typical pipeline projects). Where both presence/absence and population size class assessment surveys are indicated, these can run together. Note that the indications in this table are meant as minimum standards, and are inevitably generic. **The circumstances of a particular scheme may indicate that more surveys are required**. For example, additional effort or other types of surveys (e.g. terrestrial dispersal survey, capture-mark-recapture [CMR]) should be done where there is a sound case. Note that **different survey types and effort may be appropriate for different ponds on (or close to) the same development site**, especially for large schemes where impacts vary across the footprint.

The figures on extent of habitat loss here do not take into account overall habitat availability. **You will need to consider the spatial layout of habitat, and in particular barriers to dispersal**. So, for example, if 0.1ha of land were to be lost at a distance of 70m from a pond, and that 0.1ha seems likely (from maps, aerial photos or a walk-over survey) to provide the majority of good quality terrestrial habitat for the nearest population, then a population size class assessment should be done (contrary to the standard recommendation in the table). Conversely, for example, if this habitat were separated by major roads and built land, you may decide that no survey is necessary as it is unlikely to be used by newts. Furthermore, this table focuses on typical habitat loss/damage, and does not take into account all possible impact types, such as disturbance only. Again the general advice is to devise surveys appropriate to the level of potential impact.

Geographical limits of survey

In keeping with a proportionate and risk-based approach, surveys need reasonable boundaries. The *Great crested newt mitigation guidelines* explain that surveys of ponds up to around 500m from the development might need to be surveyed. The decision on whether to survey depends primarily on how likely it is that the development would affect newts using those ponds. For developments resulting in permanent or temporary habitat loss at distances over 250m from the nearest pond, carefully consider whether a survey is appropriate. Surveys of land at this distance from ponds are normally appropriate when all of the following conditions are met: (a) maps, aerial photos, walk-over surveys or other data indicate that the pond(s) has potential to support a large great crested newt population, (b) the footprint contains particularly favourable habitat, especially if it constitutes the majority available locally, (c) the development would have a substantial negative effect on that habitat, and (d) there is an absence of dispersal barriers.

That is not to say that all development proposals over 250m from a pond will not require surveys. There are cases where large numbers of newts have been found at 250-500m from ponds, and so impacts are potentially significant, but such cases are rare and can often be predicted by the presence of especially favourable habitat. Developments beyond 500m from the nearest pond would very rarely merit newt surveys.

Age of survey data

Newt survey data must be sufficient to accurately reflect the status of the site at the time the licence application is submitted. The older the survey data, the more likely it is to misrepresent status, and in general you are advised to carry out surveys as close as possible to submission. The larger the predicted impacts, the more important it is to have recent data. Particular care must be taken if there have been changes to the habitats on or adjacent to the site since the last survey. A walk-over survey, at the least, should be undertaken within 3 months prior to submission to check for habitat changes since the survey was carried out. If circumstances have changed, then only those areas affected by the changes need to be re-surveyed.

Re-assessment of the impacts will need to be undertaken after any re-surveys, and this may require changes to mitigation plans. The far right column in the table gives maximum acceptable age of survey, from date undertaken to date of licence submission. Note that this **assumes no significant habitat changes on or adjacent to the site since last survey**. This must be confirmed, e.g. by walk-over survey, within 3 months prior to licence application submission. Whenever you rely on old surveys, mention their key findings in the main body of your Method Statement, and attach the full survey as an annex.

Survey guidance table

Impact type and location	Potential terrestrial habitat - loss or damage (ha)	Presence/ likely absence survey	Population size class assessment	HSI	Maximum age of survey data (# breeding seasons)
Permanent habitat loss or damage					
Pond(s) lost or damaged, with or without other habitat loss or damage	≥0	YES	YES	YES	2
No ponds lost or damaged, development within 50m of nearest pond	≤0.01	YES	NO	YES	3
	>0.01	YES	YES	YES	2
No ponds lost or damaged, development 50-100m from nearest pond	≤0.2	YES	NO	NO	3
	>0.2	YES	YES	YES	2
No ponds lost or damaged, development 100-250m from nearest pond	≤0.5	YES	NO	NO	4
	>0.5	YES	YES	YES	3
No ponds lost or damaged, development >250m from nearest pond (NB see notes)	≤5	YES	NO	NO	4
	>5	YES	NO	YES	3
Temporary habitat loss or damage					
Pond(s) lost or damaged, with or without other habitat loss or damage	≥0	YES	YES	YES	2
No ponds lost or damaged,	≤0.05	YES	NO	YES	3

development within 50m of nearest pond					
	>0.05	YES	YES	YES	3
No ponds lost or damaged, development 50-100m from nearest pond	≤0.5	YES	NO	NO	4
	>0.5	YES	YES	YES	3
No ponds lost or damaged, development >100m from nearest pond	≤5	YES	NO	NO	4
	>5	YES	NO	YES	4

Example: Survey undertaken in 2011 between April to June. Application submitted in autumn 2013 using the 2011 survey. The survey supporting the application would not suffice and the 2011 survey is actually 3 survey seasons old by autumn 2013 (i.e. 1st survey season = 2011, 2nd survey season = 2012 and 3rd survey season = 2013). If the application had been submitted in March/April or even May 2013 it may have been acceptable if fully justified why no further survey effort was required.

Measuring turbidity and vegetation cover. These factors can greatly influence survey counts, so it is important to measure them consistently. In the Method Statement, we ask you to use the following convention:

Vegetation cover score (0-5) ; 0 = no vegetation obscuring survey; 5 = water completely obscured by vegetation.

Turbidity score (0-5) : 0 = completely clear; 5 = very turbid.

(5): Use of the great crested newt Habitat Suitability Index (HSI)

Background

The great crested newt Habitat Suitability Index (HSI) is quantitative measure of habitat quality (source: Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155). The HSI is number between 0 and 1, derived from an assessment of ten habitat variables known to influence the presence of newts. An HSI of 1 is optimal habitat (high probability of occurrence), while an HSI of 0 is very poor habitat (minimal probability of occurrence). The HSI is calculated on a single pond basis, but takes into account surrounding terrestrial habitat and local pond density.

Application to great crested newt mitigation

The great crested newt HSI is potentially a useful tool in survey and mitigation. One benefit is that it can be undertaken in a single field visit (with supporting desk work), and at any time of the year (though some variables are more easily measured in spring and summer). Its main uses are:

1) in **surveys**, to assess habitat quality in a repeatable, objective manner. In particular, the HSI allows individual factors that influence newt presence to be easily identified. These factors could help explain a very high or very low count. A high HSI can justify employing additional survey effort or methods if no newts are found initially.

2) in **impact assessments**, to allow a measure of how damaging a development could be. HSI might also be used as a screening tool to select no impact or minimal impact options in conjunction with (3) below.

3) in **risk assessments**, helping to decide whether an offence might be committed, and therefore whether a licence should be applied for. If a pond has a very low HSI score (say <0.5) then there would typically be a minimal chance of great crested newt presence. Hence, with due care and in limited circumstances (see also caveats below), the HSI might be used in the absence of newt survey to help conclude that an offence is highly unlikely and therefore work could proceed in that area without a licence. This application of the HSI should only be used where the predicted impacts - were newts to be present - would be low (e.g. development at least 100m from pond, permanent habitat loss <0.5ha or temporary habitat loss <5ha). The developer and consultant should realise that there would still be a risk of committing an offence, but it would typically be so low as to be negligible. Obviously, note that if HSI >0.5, this is not confirmation of newt presence; a newt survey would be required to confirm this.

4) in **habitat enhancement**, HSI could be used to identify the low-scoring factors in an existing pond that need addressing to improve its quality for newts.

5) in **post-development monitoring**, to allow an assessment of habitat condition.

HSI in licence Method Statements

Natural England recommends that consultants engaged in great crested newt mitigation familiarise themselves with the HSI

by reading the original paper by Oldham et al (2000). For field use in mitigation practice, we recommend that consultants follow the slightly simplified version adapted for the National Amphibian and Reptile Recording Scheme (NARRS). A helpful guidance note has been produced by The Herpetological Conservation Trust, available to download at:

www.narrs.org.uk/documents/HSI%20guidance.pdf

The survey sections of this template include fields for entering HSI data. The preceding guidance on survey data explains when it might be used most effectively.

Caveats and limitations

The HSI is not a substitute for undertaking newt surveys; it indicates but cannot confirm presence or absence. **A licence application that infers great crested newt presence solely from HSI data (i.e. no newt survey data presented) will be rejected**. Very low HSI scores may be used along with scheme details to infer a minimal chance of committing an offence in low impact situations, as explained above. This is on a risk assessment basis and consultants should be aware of the potential hazards of this approach. Whilst current data indicate a generally good relationship, HSI scores should not be used to predict population size. Care should be taken when interpreting low HSI scores; for example, a low scoring pond close to an occupied newt pond may still support newts. Whilst appropriate for most pond types, the HSI may lead to unusual scores for some atypical types (possibly including large expanses of marshes, and complex series of depressions in quarry floors). You are asked in the form to comment on any limitations of the HSI approach in your case, and if these are serious then it may be appropriate not to calculate HSI scores.

Post development monitoring advice and guidance

Licences can only be issued where Natural England is confident there will be no detriment to maintaining the conservation status of the newt population at a favourable level, and in some cases a package of monitoring and remedial action will be required to provide that confidence.

All mitigation schemes carry a risk of failure. If mitigation measures fail, then the resulting impact on the conservation status of the newts may mean that the “Favourable Conservation Status test” (FCS test) will not have been met. This risk is greatest for activities that are judged to have a medium or high impact. Post-development monitoring has a role in providing confidence in any judgement that there will be no detriment to favourable conservation status by detecting problems that may lead to such a detrimental effect and enabling appropriate remedial action to be taken to avoid it.

Post-development monitoring will be expected for most medium and high impact cases. Monitoring and remedial action will form an important component of the mitigation package in these cases and will be a key prerequisite to an application for a mitigation licence passing the FCS test.

The success of mitigation commonly depends on measures undertaken following the main phase of construction and newt capture (e.g. Edgar, Griffiths & Foster, 2005; Lewis, Griffiths & Barrios, 2007). Deficiencies in newly created ponds are a common problem and both aquatic and terrestrial habitat features may require several years of management to achieve a high value for newts. Monitoring is necessary to inform that management. Monitoring great crested newt numbers and breeding can also be used to identify the need for action.

When assessing applications, Natural England considers whether post-development monitoring proposals, in conjunction with the other mitigation measures, will be sufficient to ensure that the FCS test will be met. The need for monitoring, and the type of monitoring required, is related to the impact of the development and the status of the great crested newt population. In this way, monitoring requirements are proportionate to the risk of potential impacts on conservation status. For developments having low impacts, monitoring will not normally be required. Developers reducing the impact of their projects will therefore benefit from having lower costs following construction. *For further details, see table below.*

Site status assessment/ population size class	**Impact type and size**		
	Low	**Medium**	**High**
Small population/ low	None	Presence/absence; 2	Presence/absence; 4
Medium population/	None	Pop size class	Pop size class
High population/ high	pop size class	Pop size class	Pop size class

Return to E5.2

In addition to being necessary in some cases to support a conclusion of no detriment to maintenance of favourable conservation status, data produced in accordance with monitoring conditions helps Natural England and others to assess the effectiveness of mitigation measures. This in turn can feed back into good practice, so that future mitigation can be made more effective (these improvements can also help with cost effectiveness). The UK government has a duty to report to the European Commission on derogations, and for this we rely on data collected under mitigation licences.

References

Edgar, P, Griffiths, RA & Foster, JP. 2005. Evaluation of translocation as a tool for mitigating development threats to great crested newts (Triturus cristatus) in England, 1990-2001, Biological Conservation, 122: 45-52.

Lewis, B, Griffiths, RA & Barrios, Y. 2007. Field assessment of great crested newt Triturus cristatus mitigation projects in England. Natural England Research Report NERR001. Natural England, Peterborough.

Next section

Additional Advice for completing the Method Statement Template

Masterplan Guidance

For phased developments you are required to submit a detailed, stand alone, Masterplan to help assess the overall impacts of the entire works on the GCN population and the future mitigation across the whole scheme. A Masterplan to support a licence application must be specific to licensing (it is not appropriate to submit planning documents). As a minimum Natural England expects the Licensing Masterplan to include:

1. A map of the overall site (i.e. the entire area the proposed development will cover) to show the terrestrial and aquatic habitat types and areas CURRENTLY present.

2. Maps showing:
   - Where each construction phase or plot is to be located and where each mitigation licence will be required within these.
   - The impacts of each phase which requires a licence (loss and damage)
   - All proposed receptor areas, habitat compensation areas (which may be discrete from the receptor areas) sites, mitigation areas and development footprints
   - Post-development connectivity across the site (i.e. how will mitigation and compensation habitats link to each other and the wider landscape)

3. The proposed phasing programme (to include information on the number of phases (i.e. which need a licence) and indicative time frames for their construction start and end dates.

4. Brief, explanatory text to describe:
- The overall size of the site (ha) and what it currently consists of (habitat types and areas).
- Total terrestrial habitat losses (type and areas) and those for each individual phase.
- Total aquatic habitat losses which will be incurred and those for each individual phase.
- The impacts caused by the phasing of the development in the absence of mitigation
- The total terrestrial habitat compensation proposed and that for each individual phase.
- The total aquatic habitat compensation proposed and that for each individual phase.
- Where captured newts will be translocated during each individual phase.
- How post-development connectivity will be maintained across the entire site.
- How the potential for double-handling will be avoided (i.e. the recapture of newts trapped during early phases of the scheme in subsequent phases).
- Post development monitoring (in line with recommendations in the *Great crested newt mitigation guidelines)*

5. A map to show the location and extent of all of the GCN specific habitat measures proposed.

6. A detailed Habitat Maintenance and Management Plan (specific to GCN) to describe how mitigation/compensation areas will be managed and maintained in the long term to benefit GCNs (to include the time frame that it will cover).

7. Assurance of the long term security of the GCN population and confirmation that any proposals are not left as open-ended options before the application is submitted.

8. Guarantees that proposed receptor sites will be safe-guarded and free from future development pressures.

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For further info please see the archived site below:
http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/Images/WML-G11_tcm6-9930.pdf
in relation to the number of licences required for the development and not construction phases.

If **link does not open**, please paste this into an internet search browser:
webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/Images/WML-G11_tcm6-9930.pdf

Important notes on capture methods and effort

Pitfall trapping minimum effort

Trapping may cease once there have been 5 zero capture days in suitable conditions. These 5 zero capture days may be the last 5 of the minimum capture period, but not earlier. Note: The shortest minimum capture period listed (25 days) is only appropriate in exceptional circumstances, e.g. small population size class and minor development impacts predicted. Deviations from the recommendations within the Great crested newt mitigation guidelines should be fully explained and justified. A minimum of 25 nights trapping will be acceptable for linear developments (such as pipelines, boreholes, archaeological investigations) which incur temporary impacts only (e.g. where habitats will be fully re-instated to their previous status and no ponds will be lost or damaged).

Seasonal considerations in pitfall trapping and fence installation

Natural England advises that pitfall traps are closed once newts begin to hibernate (generally after the first frosts) and re-opened in suitable weather conditions in the spring when newts become active again above ground. Although some newts may become active during the winter period, their behaviour is unpredictable and many individuals will remain in hibernation sites, where they are unavailable for capture. Furthermore, strong directional movements, which are best for trapping, are much less common during this period. Pitfall trapping over the winter period also has welfare implications for both target and non-target species caught in traps. Any animal caught in a pitfall trap is protected under the Animal Welfare Act 2006 and the operator has a duty of care to ensure that captured animals do not endure suffering whilst in captivity. Natural England will not therefore licence the terrestrial capture of great crested newts over the winter period, even during bouts of milder weather.

For applications proposing newt capture in autumn, Natural England expects consideration to be given to the possibility that weather conditions may become unsuitable for newt capture, whereby pitfall traps must be closed and trapping re-started the following spring in suitable weather conditions. In cases such as this it is advisable for 'Work schedule E6a' to reflect possible delays and ensure it is clear that no construction works are scheduled to take place until the agreed capture effort is completed and that traps will be closed and re-opened the following spring.

Amphibian fencing should only be installed in winter if there is no risk of harming dormant or hibernating newts. For example, installing fence lines across ground with no opportunities for refuge (e.g. compacted ground, amenity grassland) pose the least risk to newts. The key point to examine is whether the fence is to be installed in an area likely to be used by wintering newts.

Night searching

(1) Application. This capture method is appropriate only in certain circumstances, as follows: (a) capture area within 100m of pond, unless clear resting place feature more distant and no dispersal barriers (b) newts clearly visible when above ground, i.e. even ground surface, even topography and no or very little vegetation (e.g. even quarry floors, amenity grassland, hardstanding), (c) carried out during period of reasonable dispersal, i.e. March to late June, late August to end October. It may also be used in addition to pitfall trapping, and this may increase capture rates and allow an earlier finish to capture operations.

In the following cases night searching as the *sole capture method* may be used instead of pitfall trapping: where all the conditions listed previously for applicability are met, and one of the following is the case: (a) ground conditions mean installation of pitfall traps is impractical, (b) vandalism is likely to be so severe that even with standard safeguards pitfall trapping is impractical or dangerous for the newts, (c) other site-specific rationale to believe that night searching would be more effective than trapping. In such cases night searching capture effort proposals are expected to mirror that for pitfall trapping (e.g. 30 nights night searching for a small population in suitable weather conditions and ceasing only when the above criteria have been met - see pitfall trapping minimum effort). Deviations from the mitigation guidelines recommendations should be fully explained and justified).

(2) Method. Drift fences erected in lengths forming rough arcs around pond, with some cross-ways lengths. Lay refuges next to fence and any likely resting place features. Searching to be done by highly experienced newt ecologist with high power torch (at least 1M cp). Search on warm nights during rain or shortly after rain. Start around 22.00 even if dark earlier. Search for approx. 3 hours (more on very large sites), repeat scanning areas to check for newts emerging from ground. Check along fence lines (first and last checks) but also search other areas. Walk slowly scanning torch in front; check refuges. Cease search if much leaf fall as this makes newts difficult to detect. Take great care to avoid stepping on newts.

Destructive searching and hand searching

These methods are only appropriate for distinct habitat features that can be carefully dismantled by hand or machine, with minimal risk of harm, and after other capture methods are expended. Examples: rubble pile, topsoil mound, patio, fractured hard-standing. Not to be used on extents of habitat such as grassland or scrub. Not to be undertaken in winter when newts are inactive or in extremely hot periods in summer; capture should only be carried out in suitable weather conditions as per the *Great crested newt mitigation guidelines* .

Return to table E4 Next Section

GCN Method Statement WML-A14-2 (Version November 2017)

The Conservation of Habitats and Species Regulations 2017

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: Southampton to London Pipeline (SLP)

Applicant (developer) name: Esso Petroleum Company, Limited

Named Ecologist: TBC in the final application following any grant of development consent

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):

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 Statement

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?

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

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

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:

The Order Limits at Upper Froyle, Hants (SU 7574 4260), pass close to a development that was subject to a GCN licence. According to MAGIC the licence reference is 2016-20026-EPS-MIT. Pond 57a, and possibly Pond 55, is believed to be a mitigation pond created in 2016 as part of the licence. Pond 57a is currently managed by a local wildlife group. Preliminary field surveys in 2018 for this project confirmed GCN presence in both ponds. Pond 57a is encompassed by the project's Order Limits (so that it can be used as a receptor area) but it would be unaffected by pipeline installation works. However, installation works would affect terrestrial habitat within 50m of Pond 57a and within 60m of Pond 55.

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

Next Section

3C in the final application following any grant of development consent: Southampton to London Pipeline (SLP)

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 4 and 6 years

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

Hampshire Biodiversity Information Centre (HBIC) and the Surrey Amphibian and Reptile Group (SARG).

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.

Occasional - known or likely to occur at c. 1-5 ponds per square km

Further information on local status

The GCN Species Action Plan for Hampshire states that approximately 45 breeding populations are known

C3 Recent survey (to inform this mitigation project)

C3.1 Objective of survey

To confirm presence of great crested newts in a specified area

C3.2 Survey area and justification

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

Survey Area: (●) 250m ( ) 500m ( ) Other

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

Ponds Surveyed: ( ) All Ponds (●) Some Ponds ( ) Other

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

A 250m buffer is considered appropriate given the localised, temporary and reversible nature of the pipeline project. The use of a 250m wide buffer is considered standard practice for pipeline projects of this nature.

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
	All pond descriptions can be found in Annex A.

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
			All distances and the survey status of each pond can be found in Annex A.

Add more records here Additional records page

C3.4 Habitat description: terrestrial habitats.
What is the total area (ha) of the development site? 24.15

- 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)

Please note that the above total area only relates to the areas of the project Order Limits that fall within 250m of a confirmed GCN pond and that the total area of the entire development is much larger. However, for the purpose of this licence application it is deemed appropriate to focus on the areas relevant to GCN, i.e. those within 250m of a GCN pond.

The terrestrial habitats within the project's Order Limits and within 250m of confirmed GCN ponds comprise: arable (approximately 5ha); semi-improved grassland (approximately 9ha); amenity grassland (approximately 3.5ha); improved grassland (approximately 2.5ha); scrub (approximately 0.2ha); hedgerows (approximately 0.1ha); broadleaved woodland (approximately 3ha); bracken (approximately 0.2ha); heathland (approximately 0.3ha); and coniferous woodland (approximately 0.35ha). Supplementary photographs are provided in Photos C3.4 provided as part of the application.

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					
Pond ref					
SI1 - Location					
SI2 - Pond area					
SI3 - Pond drying					
SI4 - Water quality					
SI4 - Shade					
SI6 - Fowl					
SI7 - Fish					
SI8 - Ponds					
SI9 - Terr'l habitat					
SI10 - Macrophytes					
HSI					

Date HSI assessment undertaken					
Pond ref					
SI1 - Location					
SI2 - Pond area					
SI3 - Pond drying					
SI4 - Water quality					
SI4 - Shade					
SI6 - Fowl					
SI7 - Fish					
SI8 - Ponds					
SI9 - Terr'l habitat					
SI10 - Macrophytes					
HSI					

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:

All HSI results are included in Annex A. A small proportion of ponds did not undergo an HSI assessment due to land access permission not being available at that time. These ponds are not considered to have a

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
	Surveyors and licence references can be found in Annex A.	

Add more records here Additional records page

C. Complete the following table

Pond reference	Date eDNA sample taken	Result (presence or absence)

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.

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:	10	If >10 ponds or >8 visits for a pond, provide further data… See additional Survey ponds 11-20 sheet
Surveyor name(s):	Ciaran Meehan, Nicky Park, Emily Wallace, Sam Lloyd, Bradley Collins, Cian McGlinchey, Charlotte Palmer	

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**
Pond 39					Torch power:			No. of traps used in pond:						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		0	0	0	0	0	0				Yes	No
16/05/2018	8	2	1	Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity		2	0	0	2	0	0				No	No
24/05/2018	10	1	1	Adult totals:	2			2			0				
(3) Date:	Air temp	Veg cover	Turbidity		1	0	2	0	0	1				No	No
29/05/2018	10	1	1	Adult totals:	1			0			0				
(4) Date:	Air temp	Veg cover	Turbidity		1	1	0	0	1	0				No	No
31/05/2018	14	1	2	Adult totals:	2			1			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	0	0	1	0	0				No	No
05/06/2018	7	2	2	Adult totals:	0			1			0				
(6) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
13/06/2018	14	1	2	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):								2							

Comments and constraints: 10-20 traps used each survey, depending on water levels. In addition, applicaable to all population surveys - survey programme was restricted by land access restrictions. When land access was secured in mid and late May, all surveys were subsequently undertaken to ensure the required number of surveys were completed before the end of the survey season.

C4.3 Aquatic amphibian survey (conventional methods)- GCN results (cont - Pond 2) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 2)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 55					Torch power:			No. of traps used in pond:						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		0	0	0	0	0	1				No	No
29/05/2018	10	4	2	Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity		3	0	0	0	0	0				No	No
31/05/2018	14	3	2	Adult totals:	3			0			0				
(3) Date:	Air temp	Veg cover	Turbidity		1	0	0	3	3	0				No	No
05/06/2018	10	3	3	Adult totals:	1			6			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	1	0	0	2	0				No	No
07/06/2018	14	4	3	Adult totals:	1			2			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	2	0	0	0	1				No	No
12/06/2018	8	4	2	Adult totals:	2			0			0				
(6) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	1	0				No	No
14/06/2018	11	4	3	Adult totals:	0			1			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: 10-15 traps used each survey, depending on water levels. High levels of vegetation cover were present. However, GCN were found when torching on most surveys suggesting no significant constraint.

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

Pond reference (e.g. Pond 3)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 57a					Torch power:			No. of traps used in pond:						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		3	0	0	0	0	0				No	No
05/06/2018	10	2	1	Adult totals:	3			0			0				
(2) Date:	Air temp	Veg cover	Turbidity		1	0	0	2	1	1				No	No
07/06/2018	14	2	0	Adult totals:	1			3			0				
(3) Date:	Air temp	Veg cover	Turbidity		1	2	0	1	0	0				No	No
12/06/2018	8	1	1	Adult totals:	3			1			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	1	0	1	0	1				No	No
14/06/2018	10	1	2	Adult totals:	1			1			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	1				No	No
19/06/2018	15	2	1	Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity		0	0	0	1	0	0				No	No
21/06/2018	8	2	1	Adult totals:	0			1			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):								3							

Comments and constraints: 15-30 traps used each survey, depending on water levels.

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 4) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 4)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 127					Torch power:			No. of traps used in pond:						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		2	2	0	9	11	0				No	No
01/06/2018	13	0	2	Adult totals:	4			20			0				
(2) Date:	Air temp	Veg cover	Turbidity		0	0	0	2	1	0				No	No
05/06/2018	8	1	3	Adult totals:	0			3			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	0	0	2	2	0				No	No
11/06/2018	8	1	3	Adult totals:	0			4			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
13/06/2018	13	1	3	Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	0	1	0	1	0				No	No
18/06/2018	15	2	2	Adult totals:	0			1			0				
(6) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
20/06/2018	11	0	2	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):								20							

Comments and constraints: 15-25 traps used each survey, depending on water levels.

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 5) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 5)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 127a					Torch power:			No. of traps used in pond:						eggs found?	larvae found? (any method)
No. of survey visits to this pond:			5		>= 1,000,000 cp			varies							
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity		0	2	0	8	6	0				No	No
01/06/2018	13	4	2	Adult totals:	2			14			0				
(2) Date:	Air temp	Veg cover	Turbidity		0	1	0	3	2	0				No	No
05/06/2018	8	4	2	Adult totals:	1			5			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	2	0	2	1	0				No	No
11/06/2018	8	4	2	Adult totals:	2			3			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	1	0				No	No
13/06/2018	13	4	2	Adult totals:	0			1			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
18/06/2018	15	5	2	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):								14							

Comments and constraints: Pond 127a progressively dried up between surveys, with the number of bottle traps decreasing from 17 to 5 between the first and fifth surveys. On the sixth survey attempt the pond had dried up completely and could not be surveyed. High levels of vegetation cover were present. However, GCN were still found so not considered a significant constraint.

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 6) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 6)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 128					Torch power:			No. of traps used in pond:						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		0	0	0	3	4	0				No	No
01/06/2018	13	5	2	Adult totals:	0			7			0				
(2) Date:	Air temp	Veg cover	Turbidity		1	2	0	0	0	0				No	No
05/06/2018	8	5	2	Adult totals:	3			0			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	1	0	2	3	0				No	No
11/06/2018	8	4	2	Adult totals:	1			5			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	0	0	1	1	0				No	No
13/06/2018	13	4	2	Adult totals:	0			2			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
18/06/2018	15	4	1	Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	1	1				No	No
20/06/2018	11	5	2	Adult totals:	0			1			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):								7							

Comments and constraints: 20-35 traps used each survey, depending on water levels. Pond 128 was difficult to torch due to dense vegetation cover obstructing the water surface. However GCN were found when torching on most surveys suggesting no significant constraint.

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 7) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 7)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 129a					Torch power:			No. of traps used in pond:						eggs found?	larvae found? (any method)
No. of survey visits to this pond:			4		>= 1,000,000 cp			1-10 traps							
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
01/06/2018	13	4	4	Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
05/06/2018	8	4	2	Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	1	0				No	No
11/06/2018	8	4	4	Adult totals:	0			1			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
13/06/2018	13	4	4	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):								1							

Comments and constraints: Where possible, 5 traps used each survey. Pond 129a was completely dry on the fourth survey visit, and as such no further surveys were undertaken. The results are considered with three other ponds on the same site (127, 127a and 128) as a metapopulation, so results are considered reliable

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 8) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 8)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 201					Torch power:			No. of traps used in pond:						eggs found?	larvae found? (any method)
No. of survey visits to this pond:			5		>= 1,000,000 cp			1-10 traps							
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
29/05/2018	13	4	2	Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
31/05/2018	10	4	2	Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
04/06/2018	12	5	5	Adult totals:	0			0			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
07/06/2018	14	5	3	Adult totals:	0			0			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
11/06/2018	12	5	3	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:

2-5 traps used each survey, depending on water levels;
high levels of vegetation and turbidity due to low water levels throughout surveys;
only five surveys and the pond dried up before the sixth visit;
due to isolation, size and location of pond a small population estimate is considered appropriate.

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 9) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 9)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
Pond 194a					Torch power:			No. of traps used in pond:						eggs found?	larvae found? (any method)
No. of survey visits to this pond:			3		>= 1,000,000 cp										
				Sex/life stage:	Male	Female	Imm.	Male	Female	Imm.	Male	Female	Imm.		
(1) Date:	Air temp	Veg cover	Turbidity		0	0	0				0	0	0	No	No
29/05/2018	13	4	2	Adult totals:	0			0			0				
(2) Date:	Air temp	Veg cover	Turbidity		0	0	0				0	0	0	No	No
31/05/2018	10	4	2	Adult totals:	0			0			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	0	0				0	0	0	No	No
04/06/2018	13	5	2	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: The water level was too low at pond 194a to bottle trap, and so netting was used as an alternative method. Torching was constrained by dense vegetation cover, and the pond was completely dry after survey three and was therefore subject to three surveys only. Results are considered together with Pond 194c as a metapopulation, so results are considered reliable.

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**
Pond 194c					Torch power:			No. of traps used in pond:						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		0	0	0	2	0	0				Yes	No
29/05/2018	13	2	3	Adult totals:	0			2			0				
(2) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	2	1				No	Yes
31/05/2018	10	2	1	Adult totals:	0			2			0				
(3) Date:	Air temp	Veg cover	Turbidity		0	2	0	0	0	0				No	Yes
04/06/2018	12	3	3	Adult totals:	2			0			0				
(4) Date:	Air temp	Veg cover	Turbidity		0	0	6	3	3	0				No	Yes
07/06/2018	14	3	3	Adult totals:	0			6			0				
(5) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	3				No	Yes
11/06/2018	12	4	2	Adult totals:	0			0			0				
(6) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	2				No	Yes
13/06/2018	14	4	2	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:

20-24 traps used each survey, depending on water levels;
vegetation cover in the pond increased to a higher level on later surveys due to the amount relative to the water level (i.e. amount of vegetation stayed the same but the water level continually dropped between surveys);
only low numbers of GCN were recorded even when grouped as a metapopulation with Pond 194a.

TBC in the final application following any grant of development consent: Southampton to London Pipeline (SLP)

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

TBC in the final application following any grant of development consent: Southampton to London Pipeline

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
Pond 39	Yes	2	Small			2	Yes
Pond 55	Yes	6	Small		Caution	3	No
Pond 57a	Yes	3	Small			1	No
Pond 127	Yes	20	Medium			1	No
Pond 127a	Yes	14	Medium		Caution	1	No
Pond 128	Yes	7	Small		Caution	1	No
Pond 129a	Yes	1	Small		Caution	3	No
Pond 201	Yes	0			Caution		No
Pond 194a	Yes	0			Caution		No
Pond 194c	Yes	6	Small		Caution	4	Yes

***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:	46

** 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.

The proposed route is 97km long and so it is not appropriate to apply a single population size class for the 'site'.

Of ponds which undertook population size class surveys, only Ponds 39 and 201 (small populations of GCN) are believed unlikely to contribute to a wider metapopulation due to their relative isolation. All other ponds population surveyed are considered likely to contribute to their respective local metapopulations and so it is more appropriate to interpret these results as collective counts. The following three metapopulations have been identified, where ponds are situated within 250m of one another:

Upper Froyle: Ponds 55 and 57a (surveyed) together with Ponds 56 and 57 (unsurveyed but HBIC data confirms historic presence). A medium population estimate is considered appropriate within this area.

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

Quantitative	Moderate importance - medium population
Qualitative	Moderate - breeding on site; habitats common in area
Functional	Moderate importance - probably some dispersal to/from nearby population(s)
Contextual	Moderate importance - population size class typical of 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

GCNs were confirmed in 23 ponds within 250m of the Order Limits (either by field surveys or historic records).

The presence of the A287 (Ewshot Hill) to the north of Ponds 71 and 71a (with confirmed historical presence of GCN) is considered a sufficient barrier to prevent regular GCN dispersal between the ponds and habitats within the Order Limits to the north of the road.

The A322 (Lightwater Bypass) lies approximately 93m to the west of Ponds 127 and 128 and is considered a significant barrier to GCN dispersal to the west.

A canal to the north of Ponds 223 and 223a is considered a sufficient barrier to prevent regular GCN dispersal into habitats on its northern side due to its steep sides, flowing water and presence of large fish species.

No other significant barriers to GCN dispersal have been identified within 250m of the remaining GCN ponds and with respect to the project's Order Limits.

• 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 majority of ponds surveyed experienced a low detectability warning for either vegetation cover or turbidity, which would potentially have affected the detectibility of GCN during torchlight surveys. Both of these constraints are considered to have been unavoidable, with both typically arising due to the hot and dry summer in 2018 that resulted in water levels decreasing. This decrease in water level led to an increase in the relative percentage of obscuring vegetation above the water's surface. Ponds 127a, 129a, 194a and 201 dried up completely over the course of the population estimate season, resulting in less than six surveys being undertaken at these ponds.

However, at all ponds holding water, the presence/likely absence of GCN was confirmed using eDNA techniques and so the above constraints only apply to population estimate surveys. Each pond experiencing low detectibility constraints is discussed in turn, below:

Pond 55: a small population was recorded. This pond is part of the Upper Froyle metapopulation within which a medium sized population has been confirmed. As such, mitigation within 250m of Pond 55 would be designed based on a medium population being present. It is considered extremely unlikely that Pond 55 would support more than a medium population given the peak count result of 6 individual (regardless of constraints).
Ponds 127a, 128, 129a: these ponds form part of the same metapopulation at Windlemere Golf Course. A medium population size is predicted for this site. A peak count of 14 GCN was recorded at Pond 127a, with the other ponds recording fewer than 10 newts each. The nearby Pond 127, that was unconstrained, achieved a peak count of 20 GCN. Given the peak counts at all ponds within this metapopulation, it is considered extremely unlikely that there would be a 'large' population present. As such, mitigation within 250m of Pond 55 would be designed based on a medium population being present.
Ponds 194a, 194c and 201: these form part of the same metapopulation at Foxhills Golf Course. A small population is predicted based on the survey results but it is possible that this is an underestimate. This may affect the duration that trapping is required, although this could be addressed via pre-construction surveys in 2020.

Several ponds could not be surveyed for presence/absence of GCN due to land access permission not being granted at that time. The status of GCN at these ponds is therefore unknown although assumptions have been made, where appropriate. Pre-construction surveys in 2020 would address these gaps in the baseline, as

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

Low detectability due to vegetation cover is not considered to be a significant constraint for Ponds 127a, 128, 129a, 194a, 194c and 201. There was consistently high vegetation coverage at Ponds 128, 129a, 194a and 201 across all survey visits, however only small GCN numbers were recorded during bottle trapping at each of these ponds (with no GCN recorded at Pond 201) and in most cases GCN were still recorded during torchlight surveys.

Pond 127a showed consistently high vegetation cover, however the ‘medium’ population of GCN recorded at this pond was recorded during the first bottle trapping survey. GCN numbers were found to be decreasing between each subsequent survey visit, at the same time as the pond progressively dried, until it was completely dry. Therefore, it is likely that the peak population count was accurately recorded during the first visit which took place during the period of maximum influx of GCN to breeding ponds.

Pond 194c showed an increase in vegetation cover across the course of surveys, however prior to this, vegetation cover was less obscuring and only small numbers of GCN were detected even during these surveys.

Low detectability due to turbidity at Pond 201 was only recorded on one occasion and so is more likely to represent an inconsistency with turbidity classification by the surveyor than a real effect. The fact that GCN were not recorded during any torchlight or bottle trap surveys supports the finding of this pond being part of a small GCN metapopulation. Consistently poor turbidity at Pond 129a is also not considered to be a significant constraint, as only one individual was recorded in bottle traps at this pond. This ‘small’ population of GCN is therefore considered to be an accurate representation of the status of the pond.

It is assumed that GCN are present in Pond 223a given its 'good' HSI score and proximity (<100m) to Pond 223 which tested positive for GCN DNA.

Next section

in the final application following any grant of development consent: Southampton to London Pipeline (SLP)

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): 24.15

D1.1 Breakdown of terrestrial impacts

Permanent		Temporary	
Habitat type	Area lost (ha)	Habitat type	Area damaged (ha)
N/A	N/A	Arable land	5
N/A	N/A	Scrub	0.2
N/A	N/A	Semi-improved grassland	9
N/A	N/A	Hedge	0.1
N/A	N/A	Amenity grassland	3.5
N/A	N/A	Broadleaved woodland	3
N/A	N/A	Improved grassland	2.5
N/A	N/A	Continuous bracken	0.2
N/A	N/A	Heath	0.3
N/A	N/A	Coniferous woodland	0.35
Total Loss	0	Total Damage	24.15

D1.2 Core, intermediate and distant terrestrial impacts

	Permanent	Temporary
	Area lost (ha)	Area damaged (ha)
Core (<50m from pond)	N/A	1.55
Intermediate (50-250m from pond)	N/A	22.6
Distant (>250m from pond)	N/A	N/A
Total (ha)	0	24.15

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."

Vegetation clearance, removal of turf, topsoil and subsoil excavation, and machinery movements within the Order Limits all have the potential to kill and injure GCN within 250m of ponds with confirmed GCN presence. GCN may also become trapped within excavations left open overnight. The proposed installation works would be restricted to the Order Limits and would be short-duration and so a minor negative impact on the respective local populations is predicted.

There is the potential to temporarily damage core habitat and refuge sites (<50m) near Ponds 57a, 128, 129a, 180, 194a, 201, 223, and 223a. Core habitat and refuge sites are typically of high importance for GCN. All other GCN ponds are beyond 50m from the Order Limits and no impacts to core habitat are predicted at these locations. As the proposed installation works are short-duration and habitat loss would be reversible, a minor negative impact on the respective local populations is predicted.

The use of exclusion fencing around pipelines or other linear projects can result in temporary fragmentation effects by isolating (meta)populations or individual animals from breeding, hibernation or foraging habitat. The potential for fragmentation impacts to arise on this project has been considered but the risk is thought to be low due to the typically localised areas to be fenced (only 250m from ponds, as opposed to a possible 500m), the typically small populations of GCN present, and the relatively short duration that the exclusion fences would be in place for (the construction period for the entire project is predicted to be approximately 2 years). A negligible impact is predicted, even under a worst-case scenario of fences being in place for 2 years.

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."

The proposed installation works are predicted to take two years to complete and so would be completed in the short term.

Once the proposed installation works are complete, where possible, reinstatement of vegetation would be on a like for like basis whilst having regards to the restrictions of pipeline easements. As this is standard practice for pipeline projects this measure is not considered to constitute mitigation and so it is appropriate to include in the pre-mitigation impact assessment. Reinstatement would be complete within the short term.

The proposed pipeline would be buried below ground. As such, there would be no barrier to dispersal or fragmentation impact once the affected habitats have reinstated.

The proposed pipeline would not create any permanent features or activities that could result in long-term disturbance or mortality/injury to GCN e.g. open excavations, increases in traffic.

As such, it is predicted that there would be a negligible long-term impact to GCN.

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 the proposed installation works are complete, Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements). Reinstatement would be complete within the short-term.

The proposed pipeline would not create any permanent features or activities that could result in long-term disturbance or mortality/injury to GCN.

As such, post-development interference impacts are anticipated to be negligible.

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.

None anticipated.

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

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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,
•Ÿf a residential development results in a net loss of habitat, explain why it was not possible to reduce the housing footprint; or,
•Ÿf 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
•Ÿf your proposal includes a non-standard approach to meeting the 'need'.

Please refer to Annex B for the mitigation solutions proposed.

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)

Great crested newt present; medium population size class

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

All receptor sites are within 250m of the relevant GCN pond, and have been positioned as close to it as

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).
Please refer to Annex A.			

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

Site name	Site Ownership	Conservation Designation?
Please refer to Annex A.	Please refer to Annex A.	

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

Site name	Habitat description	Size (ha)	Adjacent Land Use
Please refer to Annex A.	Please refer to Annex A.		

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	**Impacts**	**Compensation**

habitat	Area lost (ha)		Area gained (ha)	
	Permanent	Temporary	Created	Restored / reinstated / enhanced
Core	N/A	1.6	0.0	1.6
Intermediate	N/A	22.6	0.0	22.6
Distant	N/A	N/A	0.0	0.0
Totals	0.0	24.2	0.0	24.2

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.

N/A

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	0	40
Grassland re-seeding	0	15
Grassland management (just for GCN)	0	0
Scrub planting	0	0.2
Woodland planting	0	3.35
Hibernacula creation*	7	0
Refuge creation	5	0

*** 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 ownership, in Declaration worksheet J).*

NB: Do not put in specific dates here; add these into E6a (separate document).

In addition, approximately 5ha of agricultural would be returned to the land owner in suitable condition for continued useage. An additional 0.2ha of bracken and 0.3ha of healthland would be allowed to naturally re-establish. See Annex B for full details with respect to mitigation.

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.

N/A

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	No	
At pond: ring-fence, pitfall trap (+ fence & refuges)	No	
Away from pond: hand search	Yes	1
Away from pond: destructive search	Yes	1
Away from pond: fence, pitfall trap (& refuges)	Yes	30
Away from pond: night search	No	
Away from pond: exclusion fence only	No	
Other or additional method(s) - state below:	No	

N/A

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 tab.
- 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.

Please refer to Annex B for the mitigation solutions proposed, including capture/exclusion proposals and differing efforts for different locations.

E Mitigation & compensation (continued)

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

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 No

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-dev't):

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 effort.

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.

No long-term or ongoing impacts to GCN are anticipated as a result of the proposed project. As such, site safeguarding is not considered necessary and all control of land would be returned to the respective landowner on completion of the pipeline's installation.

If yes, please confirm which apply to your scheme:

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

TBC in the final application following any grant of development consent: Southampton to London Pipeline (SLP)

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 and 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:

3C in the final application following any grant of development consent: Southampton to London Pipeline (SLP)

I - Declarations

☑ Yes
☐ N/A

Re: E2: I confirm that relevant landowner consent/s has/have been granted to accept great crested newts onto land outside the applicant's ownership.

☑ Yes
☐ N/A

Re: E3.1 and E3.2 – I confirm that landownership consent/s has/have been granted to allow the creation of the proposed habitat compensation (aquatic or terrestrial) on land outside the applicant's ownership.

☐ Yes
☑ N/A

Re: E5.2 – I confirm that consent/s has/have been granted by the relevant landowner/s for monitoring and maintenance purposes, as set out in E5.2, on land outside the applicant's ownership.

☑ Yes
☐ N/A

RE: E5.1 and E5.2 - I, the applicant, confirm that all habitat management, maintenance and monitoring detailed in section 5, and accompanying documents, will be undertaken.

Unsecured consents statement:
If you have been unable to secure consents for any of the four declarations please explain why and detail any plans you have in place to obtain the consent(s) or provide details of any right(s) or agreement(s) that will enable the lawful implementation of the proposed mitigation, compensation and monitoring. Important Note: Failure to provide the appropriate landowner consents means that the Method Statement is unlikely to meet the requirements for the FCS test to be met. It is therefore in your interest to ensure that the appropriate consents have been secured before applying for a licence.

Return to beginning

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 11 - 20

C3.3i continued Ponds 11 - 20 Back to Original section

Pond ref	Description

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt					
Pond ref					
SI1 - Location					
SI2 - Pond area					
SI3 - Pond drying					
SI4 - Water quality					
SI4 - Shade					
SI6 - Fowl					
SI7 - Fish					
SI8 - Ponds					
SI9 - Terr'l habitat					
SI10 - Macrophytes					
HSI					

Date HSI assessmt					
Pond ref					
SI1 - Location					
SI2 - Pond area					
SI3 - Pond drying					
SI4 - Water quality					
SI4 - Shade					
SI6 - Fowl					
SI7 - Fish					
SI8 - Ponds					
SI9 - Terr'l habitat					

SI10 - Macrophytes						
HSI						

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

C4.3 Aquatic amphibian survey (conventional methods) - GCN results - Pond 11

Was an aquatic amphibian survey done?		If no, proceed to next section. Return to Ponds 1 - 10 tab
Total no. of ponds surveyed:	10	
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 11") - below				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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											No	No
				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:

C4.3 Aquatic amphibian survey (conventional methods)- GCN results (cont - Pond 12) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 12)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

C4.3 Aquatic amphibian survey (conventional surveys- GCN results (cont - Pond 13) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 13)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont- Pond 14) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 14)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 15) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 15)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 16) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 16)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:															

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 17) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 17)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:															

C4.3 Aquatic amphibian survey (conventional methods)- GCN results (cont - Pond 18) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 18)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:															

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 19) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 19):				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:															

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 20) *NB: This page prints in landscape format*

Pond reference (e.g. Pond 20)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

C4.3 Aquatic amphibian survey (conventional methods) - GCN results - Pond 21

Was an aquatic amphibian survey done?	Yes
Total no. of ponds surveyed:	10

If no, proceed to next section. Return to Ponds 1 - 10 tab

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 21") - below				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						eggs found?	larvae found? (any method)
No. of survey visits to this pond:			0												
				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:

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

Pond reference (e.g. Pond 22)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 23)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 24)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 25)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 26)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 27)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 28)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 29):				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 30)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

C4.3 Aquatic amphibian survey (conventional methods) - GCN results - Pond 31

Was an aquatic amphibian survey done?		If no, proceed to next section.	Return to Ponds 1 - 10 tab
Total no. of ponds surveyed:	10		
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 31") - below				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 32)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 33)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 34)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 35)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 16)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 37)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 38)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 39):				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 40)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

C4.3 Aquatic amphibian survey (conventional methods) - GCN results - Pond 31

Was an aquatic amphibian survey done?		If no, proceed to next section.	Return to Ponds 1 - 10 tab
Total no. of ponds surveyed:	10		
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 31") - below				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 32)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 33)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 34)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 35)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 16)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 37)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 38)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 39):				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

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

Pond reference (e.g. Pond 40)				Method:	**Torch**			**Bottle-trap**			**Net**			**Egg search**	**Larvae**
					Torch power:			No. of traps used in pond:						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:

Sheet	Pond/ Receptor Site
Sheet A	Pond 1
Sheet A	Pond 49
Sheet A	Pond 5
Sheet A	Pond 5a
Sheet A	Pond 6
Sheet A	Pond 6a
Sheet A	Pond 8
Sheet A	Pond 9
Sheet A	Pond 10
Sheet A	Pond 11
Sheet A	Receptor Area A
Sheet A	Receptor Area B
Sheet A	Receptor Area C
Sheet A	Receptor Area D
Sheet B	Pond 11a
Sheet B	Pond 12
Sheet B	Pond 12a
Sheet B	Pond 12b
Sheet B	Pond 13
Sheet B	Pond 14
Sheet B	Pond 15
Sheet B	Pond 16
Sheet B	Pond 17
Sheet B	Pond 18
Sheet B	Receptor Area E
Sheet B	Receptor Area F
Sheet B	Receptor Area G
Sheet B	Receptor Area H
Sheet C	Pond 19
Sheet C	Pond 20
Sheet C	Pond 21
Sheet C	Pond 22
Sheet C	Pond 22a
Sheet C	Pond 23
Sheet C	Pond 24
Sheet C	Pond 25
Sheet C	Pond 26
Sheet C	Pond 27
Sheet C	Receptor Area I
Sheet C	Receptor Area J
Sheet C	Receptor Area K
Sheet C	Receptor Area L
Sheet D	Pond 27a
Sheet D	Pond 27b
Sheet D	Pond 27c
Sheet D	Pond 28
Sheet D	Pond 32
Sheet D	Pond 33
Sheet D	Pond 37
Sheet D	Pond 38
Sheet D	Pond 39
Sheet D	Pond 39a
Sheet D	Receptor Area M

Sheet D	Receptor Area N
Sheet D	Receptor Area O
Sheet E	Pond 39b
Sheet E	Pond 41
Sheet E	Pond 42
Sheet E	Pond 43
Sheet E	Pond 44
Sheet E	Pond 50
Sheet E	Pond 51
Sheet E	Pond 52
Sheet E	Pond 54
Sheet E	Pond 55
Sheet F	Pond 56
Sheet F	Pond 57
Sheet F	Pond 57a
Sheet F	Pond 59
Sheet F	Pond 61
Sheet F	Pond 63
Sheet F	Pond 64
Sheet F	Pond 65
Sheet F	Pond 65a
Sheet F	Pond 65b
Sheet G	Pond 69
Sheet G	Pond 70
Sheet G	Pond 71
Sheet G	Pond 71a
Sheet G	Pond 74
Sheet G	Pond 75
Sheet G	Pond 76
Sheet G	Pond 77
Sheet G	Pond 78
Sheet G	Pond 78a
Sheet H	Pond 78b
Sheet H	Pond 78c
Sheet H	Pond 78d
Sheet H	Pond 80
Sheet H	Pond 81
Sheet H	Pond 82
Sheet H	Pond 83
Sheet H	Pond 84
Sheet H	Pond 85
Sheet H	Pond 86
Sheet I	Pond 87b
Sheet I	Pond 87c
Sheet I	Pond 89
Sheet I	Pond 90
Sheet I	Pond 92
Sheet I	Pond 93
Sheet I	Pond 93a
Sheet I	Pond 93b
Sheet I	Pond 100a
Sheet I	Pond 104
Sheet J	Pond 104a
Sheet J	Pond 104b
Sheet J	Pond 105
Sheet J	Pond 106
Sheet J	Pond 107
Sheet J	Pond 108
Sheet J	Pond 109

Sheet J	Pond 110
Sheet J	Pond 111
Sheet J	Pond 112
Sheet K	Pond 113
Sheet K	Pond 114
Sheet K	Pond 115
Sheet K	Pond 115a
Sheet K	Pond 118
Sheet K	Pond 118a
Sheet K	Pond 124a
Sheet K	Pond 125
Sheet K	Pond 126
Sheet K	Pond 127
Sheet L	Pond 127a
Sheet L	Pond 128
Sheet L	Pond 129
Sheet L	Pond 129a
Sheet L	Pond 130
Sheet L	Pond 130a
Sheet L	Pond 130b
Sheet L	Pond 130c
Sheet L	Pond 134
Sheet L	Pond 136
Sheet M	Pond 141
Sheet M	Pond 142a
Sheet M	Pond 68
Sheet M	Pond 73
Sheet M	Pond 94a
Sheet M	Pond 144
Sheet M	Pond 145
Sheet M	Pond 146
Sheet M	Pond 151
Sheet M	Pond 151a
Sheet N	Pond 151b
Sheet N	Pond 153
Sheet N	Pond 155
Sheet N	Pond 155a
Sheet N	Pond 156
Sheet N	Pond 156a
Sheet N	Pond 158
Sheet N	Pond 159
Sheet N	Pond 160
Sheet N	Pond 161
Sheet O	Pond 164
Sheet O	Pond 166
Sheet O	Pond 166a
Sheet O	Pond 167
Sheet O	Pond 168
Sheet O	Pond 169
Sheet O	Pond 94b
Sheet O	Pond 95
Sheet O	Pond 96
Sheet O	Pond 178
Sheet P	Pond 178a
Sheet P	Pond 180
Sheet P	Pond 180a
Sheet P	Pond 183
Sheet P	Pond 97
Sheet P	Pond 208a

Sheet P	Pond 190
Sheet P	Pond 191
Sheet P	Pond 191a
Sheet P	Pond 192
Sheet Q	Pond 193
Sheet Q	Pond 194
Sheet Q	Pond 194a
Sheet Q	Pond 194b
Sheet Q	Pond 194c
Sheet Q	Pond 194d
Sheet Q	Pond 195
Sheet Q	Pond 196
Sheet Q	Pond 197
Sheet Q	Pond 198
Sheet R	Pond 199
Sheet R	Pond 200
Sheet R	Pond 201
Sheet R	Pond 202
Sheet R	Pond 202a
Sheet R	Pond 203
Sheet R	Pond 204
Sheet R	Pond 204a
Sheet R	Pond 98
Sheet R	Pond 206
Sheet S	Pond 206a
Sheet S	Pond 208
Sheet S	Pond 211
Sheet S	Pond 213
Sheet S	Pond 214
Sheet S	Pond 215
Sheet S	Pond 99
Sheet S	Pond 218
Sheet S	Pond 220
Sheet S	Pond 221
Sheet T	Pond 223
Sheet T	Pond 223a
Sheet T	Pond 224
Sheet T	Pond 102
Sheet T	Pond 103
Sheet T	Pond 103a
Sheet T	Pond 103b
Sheet T	Pond 103c
Sheet T	Pond 108a
Sheet T	Pond 186
Sheet U	Pond 210
Sheet U	Pond 212
Sheet U	Pond 108b
Sheet U	Pond 108c
Sheet U	Pond 108d

Due to the iterative design of this project throughout 2018, ponds have been 'scoped in/out' of the assessment at various times as the position of the Order Limits has developed. As such, the pond references do not always follow in numerical order. Please refer to this Index sheet and the available filters if looking for information relating to a specific pond or receptor site.

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 1 - 10

C3.3i continued Ponds 1 - 10 Back to Original section

Pond ref	Description
1	Access permission denied. From desk-based study appears to be a small woodland pond.
49	Large neatly maintained pond with short jetty in amenity grassland.
5	Farmland pond spilling across track between two fields, some willows along banks.
5a	Small wet depression at base of fallen tree.
6	Pond in margin between field and road with some trees on banks.
6a	Pond on edge of garden bordering roadside, steep banks covered in scrub.
8	Large lined pond created in last few years, farm geese present and stocked with carp.
9	Small farmland pond that collects rain runoff from adjacent field.
10	Fishing lake.
11	Pond on edge of pasture field next to hedgerow.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
1	150	No	Access permission denied
49	240	Yes	
5	60	Yes	
5a	20	No	Completely unsuitable for GCN
6	80	Yes	
6a	170	Yes	
8	10	Yes	
9	60	Yes	
10	140	No	Completely unsuitable for GCN
11	190	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt		08/05/2018	26/02/2018	26/02/2018	24/04/2018
Pond ref	1	49	5	5a	6
SI1 - Location		1	1	1	1
SI2 - Pond area		0.925	0.6	0.05	1
SI3 - Pond drying		0.9	1	0.1	0.9
SI4 - Water quality		1	0.67	0.67	0.67
SI4 - Shade		1	0.8	0.2	0.8
SI6 - Fowl		0.67	0.67	1	0.67
SI7 - Fish		0.3	1	1	0.7
SI8 - Ponds		0.85	1	0.85	0.85
SI9 - Terr'l habitat		1	1	1	1
SI10 - Macrophytes		0.45	0.35	0.3	0.45
HSI		0.76	0.77	0.42	0.78

Date HSI assessmt	01/05/2018	30/04/2018	30/04/2018	13/06/2018	30/04/2018
Pond ref	6a	8	9	10	11
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.6	0.91	0.05	0.8	0.1
SI3 - Pond drying	0.9	0.9	1	0.9	1
SI4 - Water quality	0.67	0.67	0.67	1	0.67
SI4 - Shade	1	1	1	1	1

SI6 - Fowl	0.67	0.67	0.67	0.01	1
SI7 - Fish	0.7	0.3	0.7	0.01	1
SI8 - Ponds	0.89	0.72	0.72	0.9	1
SI9 - Terr'l habitat	1	0.67	0.67	1	1
SI10 - Macrophytes	0.4	0.35	0.4	0.4	0.9
HSI	0.76	0.67	0.56	0.35	0.76

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
1	N/A	N/A
49	Emily Wallace	2016-23525-CLS-CLS
5	Ciaran Meehan	2017-27439-CLS-CLS
5a	Emily Wallace	2016-23525-CLS-CLS
6	Suzanne Jenkins	2017-28717-CLS-CLS
6a	Ciaran Meehan	2017-27439-CLS-CLS
8	Ciaran Meehan	2017-27439-CLS-CLS
9	Ciaran Meehan	2017-27439-CLS-CLS
10	Emily Wallace	2016-23525-CLS-CLS
11	Ciaran Meehan	2017-27439-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
1	N/A	N/A
49	08/05/2018	Absent
5	17/04/2018	Absent
5a	N/A	N/A
6	24/04/2018	Absent
6a	01/05/2018	Absent
8	30/04/2018	Absent
9	30/04/2018	Absent
10	N/A	N/A
11	30/04/2018	Present

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
Receptor Area A	SU54011864		0m
Receptor Area B	SU73053779		0m
Receptor Area C	SU73683876		0m
Receptor Area D	SU74984198		0m

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
Receptor Area A	Mr M R Dunford	No
Receptor Area B	Mr T G Brock	No
Receptor Area C	Neatham Farms Ltd / Hartley Park Farms Ltd	No
Receptor Area D	Mr T Porter	No

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Receptor Area A	Scrubby margin between two arable fields connecting to the end of a hedgerow with mature trees	0.05	Arable
Receptor Area B	Mature hedgerow with scattered trees and scrub either side, connects to small wooded area around Pond 39	0.1	Pasture
Receptor Area C	Small section of a hedgerow with scattered trees and a wider margin of scrub either side before arable fields	0.01	Arable
Receptor Area D	Section of hedgerow, scrub and scattered trees between two fields that extends around the outside of Pond 50	0.6	Arable

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 11 - 20

C3.3i continued Ponds 11 - 20 Back to Original section

Pond ref	Description
11a	Small garden pond.
12	Dry depression that likely acts as an overflow during bad weather, has been dry for a long time.
12a	Lined and walled garden pond on edge of garden and semi-natural woodland.
12b	Shallow scrape next to access track on farmland.
13	Large, heavily maintained pond in large garden with patches of wildflowers and nearby woodland.
14	Large lined pond with fish and waterfowl in amenity grassland.
15	Large lined pond with fish and waterfowl in amenity grassland.
16	Lined pond with island in the centre, surrounded by amenity grassland and mixed woodland.
17	Access permission denied. From aerial imagery appears to be a pond situated in a thin strip of woodland.
18	Clay pond on edge of field, filled by run off from the field.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
11a	210	Yes	
12	10	No	Completely unsuitable for GCN
12a	20	Yes	
12b	5	No	Completely unsuitable for GCN
13	250	Yes	
14	160	Yes	
15	150	Yes	
16	90	Yes	
17	230	No	Access permission denied
18	10	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	30/04/2018		13/03/2018	28/02/2018	30/05/2018
Pond ref	11a	12	12a	12b	13
SI1 - Location	1		1	1	1
SI2 - Pond area	0.05		0.05	0.05	0.895
SI3 - Pond drying	0.9		0.9	0.1	0.9
SI4 - Water quality	0.67		1	0.33	0.67
SI4 - Shade	1		1	1	1
SI6 - Fowl	1		1	1	0.67
SI7 - Fish	0.3		0.7	1	0.7
SI8 - Ponds	1		0.72	0.72	0.85
SI9 - Terr'l habitat	1		1	1	1
SI10 - Macrophytes	0.5		0.8	0.3	0.4
HSI	0.58		0.67	0.45	0.78

Date HSI assessmt	11/05/2018	11/05/2018	11/05/2018		24/04/2018
Pond ref	14	15	16	17	18
SI1 - Location	1	1	1		1
SI2 - Pond area	0.865	0.895	0.9		0.865
SI3 - Pond drying	0.9	0.9	1		1
SI4 - Water quality	0.67	0.67	0.33		0.67

SI4 - Shade	1	1	1		1
SI6 - Fowl	0.01	0.1	0.67		0.67
SI7 - Fish	0.3	0.3	0.7		0.7
SI8 - Ponds	0.85	0.85	0.85		0.45
SI9 - Terr'l habitat	0.67	0.67	0.67		0.67
SI10 - Macrophytes	0.4	0.4	0.35		0.5
HSI	0.45	0.57	0.70		0.73

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
11a	Ciaran Meehan	2017-27439-CLS-CLS
12	N/A	
12a	Suzanne Jenkins	2017-28717-CLS-CLS
12b	N/A	
13	Ciaran Meehan	2017-27439-CLS-CLS
14	Suzanne Jenkins	2017-28717-CLS-CLS
15	Suzanne Jenkins	2017-28717-CLS-CLS
16	Suzanne Jenkins	2017-28717-CLS-CLS
17	N/A	
18	Suzanne Jenkins	2017-28717-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
11a	30/04/2018	Absent
12	N/A	N/A
12a	08/05/2018	Absent
12b	N/A	N/A
13	30/05/2018	Absent
14	11/05/2018	Absent
15	11/05/2018	Absent
16	11/05/2018	Absent
17	N/A	N/A
18	24/04/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
Receptor Area E	SU75594235		0m
Receptor Area F	SU75514247		0m
Receptor Area G	SU75684257		0m
Receptor Area H	SU76024301		0m

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
Receptor Area E	Froyle Park Ltd	No
Receptor Area F	Froyle Park Ltd	No
Receptor Area G	Linden Homes South East Ltd / Froyle Park Ltd	No
Receptor Area H	Froyle Park Ltd	No

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Receptor Area E	Field margin with scrub, hedgerow and some mature trees	0.05	Arable
Receptor Area F	Field margin with scrub, hedgerow and some mature trees	0.05	Arable
Receptor Area G	Scrubby area with hedge and trees at end of a row of poplars	0.05	Pasture
Receptor Area H	Scrubby area of habitat surrounding Pond 57a	0.3	Pasture

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
19	Shallow bowl on edge of pasture field holding no water at time of survey.
20	Circular pond with a small island in corner of farmland.
21	Pond no longer exists, land being developed at time of survey.
22	Murky pond just off corner of Stapely Lane, likely formed from small-scale digging of chalk here.
22a	Small depression in woodland.
23	Pond in the corner of a field by a footpath, surrounded by fringe of trees and bramble.
24	Small circular pond at edge of planted beech and hazel woodland.
25	Steep-edged drainage pond fed by drain pipes from nearby structures.
26	Access permission denied. From aerial imagery appears to be a circular pond in corner of a farmyard.
27	Largest of four lined garden ponds fed by rainwater.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
19	160	No	Completely unsuitable for GCN
20	40	Yes	
21	60	No	Completely unsuitable for GCN
22	130	Yes	
22a	60	Yes	
23	90	Yes	
24	40	Yes	
25	140	Yes	
26	140	No	Access permission denied
27	170	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt		18/04/2018		18/04/2018	14/03/2018
Pond ref	19	20	21	22	22a
SI1 - Location		1		1	1
SI2 - Pond area		0.45		0.5	0.2
SI3 - Pond drying		1		0.5	0.5
SI4 - Water quality		0.67		0.67	0.33
SI4 - Shade		1		0.7	0.7
SI6 - Fowl		0.67		0.67	0.67
SI7 - Fish		0.7		1	0.7
SI8 - Ponds		0.1		0.75	0.9
SI9 - Terr'l habitat		1		1	0.67
SI10 - Macrophytes		0.4		0.35	0.55
HSI		0.60		0.68	0.57

Date HSI assessmt	18/04/2018	05/06/2018	30/05/2018		11/05/2018
Pond ref	23	24	25	26	27
SI1 - Location	1	1	1		1
SI2 - Pond area	0.4	0.2	0.05		0.1
SI3 - Pond drying	0.5	1	1		0.9
SI4 - Water quality	0.67	0.33	0.67		1
SI4 - Shade	0.2	0.2	1		1
SI6 - Fowl	0.67	1	1		0.67

SI7 - Fish	1	1	1		1
SI8 - Ponds	0.75	0.6	0.72		0.85
SI9 - Terr'l habitat	0.67	1	0.67		0.67
SI10 - Macrophytes	0.35	0.3	0.45		0.7
HSI	0.56	0.55	0.61		0.69

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
19	N/A	
20	Ciaran Meehan	2017-27439-CLS-CLS
21	N/A	
22	Ciaran Meehan	2017-27439-CLS-CLS
22a	Suzanne Jenkins	2017-28717-CLS-CLS
23	Ciaran Meehan	2017-27439-CLS-CLS
24	Emily Wallace	2016-23525-CLS-CLS
25	Ciaran Meehan	2017-27439-CLS-CLS
26	N/A	
27	Suzanne Jenkins	2017-28717-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
19	N/A	N/A
20	18/04/2018	Absent
21	N/A	N/A
22	18/04/2018	Absent
22a	08/05/2018	Absent
23	18/04/2018	Absent
24	05/06/2018	Absent
25	30/05/2018	Absent
26	N/A	N/A
27	11/05/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
Receptor Area I	SU80674994		0m
Receptor Area J	SU80624999		0m
Receptor Area K	SU93966174		0m
Receptor Area L	SU94206188		0m

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
Receptor Area I	Ms J M Rook / Hampshire County Council Highways	No
Receptor Area J	Ms J M Rook / Hampshire County Council Highways	No
Receptor Area K	Surrey Heath Borough Council	No
Receptor Area L	Surrey Heath Borough Council	No

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use
Receptor Area I	Hedgerow/treeline along field margin	0.01	Pasture
Receptor Area J	Hedgerow/treeline along field margin	0.05	Pasture
Receptor Area K	Section of treeline and scrub on former golf course in the process of becoming a SANG	0.1	Amenity

Receptor Area L	Section of treeline and scrub surrounding Pond 129a on former golf course in the process of becoming a SANG	0.2	Amenity

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 31 - 40

C3.3i continued Ponds 31 - 40 Back to Original section

Pond ref	Description
27a	One of four adjacent lined garden ponds.
27b	Smallest and lowest of four adjacent interconnected lined garden ponds.
27c	Small pond, highest of four adjacent interconnected lined garden ponds.
28	Pond in arable field, some poaching from cattle along margin.
32	No longer a pond, dry depression in woodland with signs of badger use.
33	Pond on border of arable field and woodland.
37	Pond in corner of field, heavily poached by sheep.
38	Field pond with hedgerow bordering, used by sheep for drinking water.
39	Pond surrounded by hawthorn in corner of a pasture field.
39a	Very small amount of water in what was probably once a much larger pond but has not been for a significant time.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
27a	160	Yes	
27b	150	Yes	
27c	180	Yes	
28	240	Yes	
32	40	No	Completely unsuitable for GCN
33	240	Yes	
37	80	No	Completely unsuitable for GCN
38	20	Yes	
39	130	Yes	
39a	100	No	Completely unsuitable for GCN

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	11/05/2018	11/05/2018	11/05/2018	01/05/2018	
Pond ref	27a	27b	27c	28	32
SI1 - Location	1	1	1	1	
SI2 - Pond area	0.05	0.05	0.05	0.5	
SI3 - Pond drying	0.9	0.9	0.9	1	
SI4 - Water quality	0.67	0.67	0.67	0.67	
SI4 - Shade	0.7	0.4	1	1	
SI6 - Fowl	1	1	1	1	
SI7 - Fish	1	1	1	0.7	
SI8 - Ponds	0.85	0.85	0.85	0.89	
SI9 - Terr'l habitat	0.67	0.67	0.67	0.67	
SI10 - Macrophytes	0.6	0.45	0.8	0.4	
HSI	0.61	0.56	0.65	0.75	

Date HSI assessmt	17/05/2018	17/05/2018	17/05/2018	01/05/2018	24/05/2018
Pond ref	33	37	38	39	39a
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.4	0.3	0.45	0.9	0.05
SI3 - Pond drying	0.5	0.1	0.1	1	0.1
SI4 - Water quality	1	0.33	0.67	0.67	0.67

SI4 - Shade	0.3	0.2	0.4	0.3	0.2
SI6 - Fowl	1	0.67	0.67	0.67	1
SI7 - Fish	1	1	1	0.7	1
SI8 - Ponds	0.72	0.65	0.65	0.75	0.75
SI9 - Terr'l habitat	1	0.67	0.67	1	1
SI10 - Macrophytes	0.55	0.35	0.5	0.35	0.45
HSI	0.69	0.43	0.53	0.68	0.43

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
27a	Suzanne Jenkins	2017-28717-CLS-CLS
27b	Suzanne Jenkins	2017-28717-CLS-CLS
27c	Suzanne Jenkins	2017-28717-CLS-CLS
28	Ciaran Meehan	2017-27439-CLS-CLS
32	N/A	
33	Nicky Park	2017-27562-CLS-CLS
37	Ciaran Meehan	2017-27439-CLS-CLS
38	Ciaran Meehan	2017-27439-CLS-CLS
39	Ciaran Meehan	2017-27439-CLS-CLS
39a	N/A	

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
27a	11/05/2018	Absent
27b	11/05/2018	Absent
27c	11/05/2018	Absent
28	01/05/2018	Absent
32	N/A	N/A
33	17/05/2018	Absent
37	N/A	N/A
38	17/05/2018	Absent
39	01/05/2018	Present
39a	N/A	N/A

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
Receptor Area M	TQ01476550		0m
Receptor Area N	TQ05546941		0m
Receptor Area O	TQ05546941		0m

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
Receptor Area M	Foxhills Golf Club	No
Receptor Area N	Spelthorne Civic Pride Volunteers	No
Receptor Area O	Spelthorne Civic Pride Volunteers	No

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use
Receptor Area M	Wooded area with scrub and understorey vegetation near Pond 203 on Foxhills Golf Course	0.2	Amenity
Receptor Area N	Area of scattered trees and scrub surrounding Pond 223	0.05	Solar panel farm
Receptor Area O	Area of scattered trees and scrub surrounding Pond 223	0.05	Solar panel farm

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 41 - 50

C3.3i continued Ponds 41 - 50 Back to Original section

Pond ref	Description
39b	Dry, shallow depression in a field.
41	Oblong pond along edge of golf fairway and road.
42	Large pond along edge of arable field.
43	A shallow depression in an area of woodland that occasionally collects water.
44	Woodland pond with two ditches feeding into it, low water level at time of survey.
50	Circular pond in margin between arable fields, lots of algae on the surface.
51	Large elliptical pond with a small island between arable field and a large garden.
52	A fishing lake.
54	Not surveyed. From aerials appears to be a small woodland pond.
55	Fenced pond on edge of new housing development, was likely here before development started too.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
39b	60	No	Completely unsuitable for GCN
41	180	Yes	
42	110	Yes	
43	100	No	Completely unsuitable for GCN
44	40	Yes	
50	50	Yes	
51	70	Yes	
52	150	Yes	
54	240	No	Pond is located 240m from the Order Limits on the other side of the A31 dual carriageway – total barrier to dispersal.
55	50	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt		17/04/2018	14/06/2018		29/06/2018
Pond ref	39b	41	42	43	44
SI1 - Location		1	1		1
SI2 - Pond area		0.4	0.8		0.75
SI3 - Pond drying		1	0.9		1
SI4 - Water quality		0.67	0.67		1
SI4 - Shade		1	1		0.4
SI6 - Fowl		0.67	0.67		1
SI7 - Fish		0.7	0.7		0.7
SI8 - Ponds		0.84	0.72		0.6
SI9 - Terr'l habitat		0.67	0.67		1
SI10 - Macrophytes		0.6	0.35		0.35
HSI		0.73	0.72		0.73

Date HSI assessmt	18/04/2018	18/04/2018	14/06/2018		29/05/2018
Pond ref	50	51	52	54	55
SI1 - Location	1	1	1		1
SI2 - Pond area	0.8	0.8	0.8		0.1
SI3 - Pond drying	0.9	0.9	0.9		1

SI4 - Water quality	1	1	1		1
SI4 - Shade	1	1	1		1
SI6 - Fowl	0.67	0.67	0.67		0.67
SI7 - Fish	0.7	0.3	0.01		0.7
SI8 - Ponds	0.84	0.84	0.95		0.95
SI9 - Terr'l habitat	0.67	1	1		0.67
SI10 - Macrophytes	1	0.35	0.45		1
HSI	0.85	0.73	0.54		0.70

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
39b	N/A	
41	Ciaran Meehan	2017-27439-CLS-CLS
42	Nicky Park	2017-27562-CLS-CLS
43	N/A	
44	Emily Wallace	2016-23525-CLS-CLS
50	Ciaran Meehan	2017-27439-CLS-CLS
51	Ciaran Meehan	2017-27439-CLS-CLS
52	Emily Wallace	2016-23525-CLS-CLS
54	N/A	
55	Ciaran Meehan	2017-27439-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
39b	N/A	N/A
41	17/04/2018	Present
42	14/06/2018	Absent
43	N/A	N/A
44	29/06/2018	Absent
50	18/04/2018	Present
51	18/04/2018	Absent
52	14/06/2018	Absent
54	N/A	N/A
55	29/05/2018	Present

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
N/A			

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
N/A		

E2.5 Receptor site(s): continued Back to original section

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
56	Access permission denied. From aerials appears to be a pond in corner of pasture field. Hampshire Biodiversity Information Centre (HBIC) records confirm GCN presence.
57	Large garden pond with an island in the middle.
57a	Relatively newly constructed, lined mitigation pond in corner of pasture field. Managed by local wildlife group.
59	Woodland lake with overhanging willows and turning into wet woodland at northern end.
61	Pond no longer exists.
63	Small woodland pond.
64	Woodland pond near boundary of golf course.
65	Large woodland pond.
65a	Woodland pond with steep banks and lots of semi-mature trees on banks.
65b	Irregular shaped pond fed by runoff resulting from overflow of nearby ponds, heavily vegetated along banks.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
56	230	No	Access permission denied
57	190	Yes	
57a	50	Yes	
59	5	Yes	
61	170	No	Completely unsuitable for GCN
63	220	Yes	
64	170	Yes	
65	50	Yes	
65a	230	Yes	
65b	240	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt		01/05/2018	01/05/2018	19/04/2018	
Pond ref	56	57	57a	59	61
SI1 - Location		1	1	1	
SI2 - Pond area		0.985	0.4	0.8	
SI3 - Pond drying		0.9	1	0.9	
SI4 - Water quality		1	1	1	
SI4 - Shade		1	1	0.6	
SI6 - Fowl		0.67	0.67	0.01	
SI7 - Fish		0.7	0.7	0.7	
SI8 - Ponds		0.75	0.85	0.75	
SI9 - Terr'l habitat		0.67	1	1	
SI10 - Macrophytes		0.8	0.4	0.45	
HSI		0.84	0.76	0.50	

Date HSI assessmt	18/04/2018	18/04/2018	08/05/2018	08/05/2018	08/05/2018
Pond ref	63	64	65	65a	65b
SI1 - Location	1	1	1	1	1
SI2 - Pond area	1	0.3	0.8	0.88	1

SI3 - Pond drying	0.5	1	0.9	1	1
SI4 - Water quality	1	1	1	1	1
SI4 - Shade	0.3	0.4	1	0.4	0.3
SI6 - Fowl	0.67	0.67	0.67	0.67	1
SI7 - Fish	1	1	0.7	0.7	1
SI8 - Ponds	0.95	0.95	1	1	1
SI9 - Terr'l habitat	1	1	1	1	1
SI10 - Macrophytes	0.4	0.4	0.65	0.35	0.7
HSI	0.72	0.71	0.86	0.75	0.86

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
56	N/A	
57	Ciaran Meehan	2017-27439-CLS-CLS
57a	Ciaran Meehan	2017-27439-CLS-CLS
59	Emily Wallace	2016-23525-CLS-CLS
61	N/A	
63	Emily Wallace	2016-23525-CLS-CLS
64	Emily Wallace	2016-23525-CLS-CLS
65	Emily Wallace	2016-23525-CLS-CLS
65a	Emily Wallace	2016-23525-CLS-CLS
65b	Emily Wallace	2016-23525-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
56	N/A	N/A
57	01/05/2018	Present
57a	01/05/2018	Present
59	19/04/2018	Absent
61	N/A	N/A
63	18/04/2018	Present
64	18/04/2018	Absent
65	08/04/2018	Absent
65a	08/05/2018	Present
65b	08/05/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
N/A			

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
N/A		

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
69	Pond in middle of field with some reeds bordering.
70	Access permission denied. From aerial imagery appears to be a small pond on edge of woodland.
71	Access permission denied. From aerial imagery appears to be a roughly square pond. HBIC data confirms GCN presence here in 2014.
71a	Access permission denied. From aerial imagery appears to be a roughly square pond. HBIC data confirms GCN presence here in 2014.
74	Access permission denied. Appears to be a small garden pond.
75	Access permission denied. Appears to be a pond behind a garden centre.
76	Highly maintained garden pond, lined base and wooden veranda.
77	Small pond near fence in Crookham Park, lots of grass in and around edges suggesting it may be ephemeral.
78	Circular pond in the middle of a marshy field fed by a stream.
78a	Shallow ephemeral pond that dried up between HSI assesment and eDNA survey.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
69	150	Yes	
70	110	No	Access permission denied
71	140	No	Access permission denied
71a	30	No	Access permission denied
74	20	No	Access permission denied
75	40	No	Access permission denied
76	0	Yes	
77	0	Yes	
78	5	Yes	
78a	0	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	30/04/2018				
Pond ref	69	70	71	71a	74
SI1 - Location	1				
SI2 - Pond area	0.3				
SI3 - Pond drying	0.9				
SI4 - Water quality	0.67				
SI4 - Shade	1				
SI6 - Fowl	0.67				
SI7 - Fish	0.7				
SI8 - Ponds	1				
SI9 - Terr'l habitat	0.33				
SI10 - Macrophytes	0.4				
HSI	0.64				

Date HSI assessmt		17/05/2018	05/03/2018	05/03/2018	22/03/2018
Pond ref	75	76	77	78	78a
SI1 - Location		1	1	1	1
SI2 - Pond area		0.6	0.3	0.1	0.1
SI3 - Pond drying		0.9	0.1	0.5	1
SI4 - Water quality		0.67	1	1	1
SI4 - Shade		1	0.4	1	1

SI6 - Fowl		0.67	0.67	0.67	1
SI7 - Fish		0.7	1	0.7	1
SI8 - Ponds		1	1	1	1
SI9 - Terr'l habitat		0.67	1	1	1
SI10 - Macrophytes		0.4	1	1	0.6
HSI		0.73	0.62	0.69	0.75

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
69	Nicky Park	2017-27562-CLS-CLS
70	N/A	
71	N/A	
71a	N/A	
74	N/A	
75	N/A	
76	Ciaran Meehan	2017-27439-CLS-CLS
77	Rosy Benbow	2015-16872-CLS-CLS
78	Rosy Benbow	2015-16872-CLS-CLS
78a	N/A	

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
69	30/04/2018	Absent
70	N/A	N/A
71	N/A	N/A
71a	N/A	N/A
74	N/A	N/A
75	N/A	N/A
76	17/05/2018	Absent
77	18/04/2018	Absent
78	18/04/2018	Absent
78a	N/A	N/A

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
N/A			

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
N/A		

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use
N/A			

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
78b	Pond in area of woodland.
78c	Small ephemeral ditch by bridleway.
78d	Small ephemeral ditch by bridleway.
80	Not a pond but a shallow pool regularly drained and refilled with a hose for use as a horse jump.
81	Medium sized pond with a lined base.
82	Pond in area of woodland, lots of vegetation along banks.
83	Lined pond with steep banks, fed by a pipe- likely run off from surrounding area.
84	Large pond in amenity grassland.
85	Elongated pond with steep banks, lilkely lined.
86	Large pond with trees around banks.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
78b	40	Yes	
78c	0	No	Completely unsuitable for GCN. Shallow woodland scrape that was drying out. No macrophytes. Pond 78b is approximately 50m to the west and was negative for GCN eDNA.
78d	0	No	Completely unsuitable for GCN. Shallow woodland scrape that was dry. Pond 78b is approximately 50m to the west and was negative for GCN eDNA.
80	80	No	Completely unsuitable for GCN. Not a pond - area flooded with a hose pipe for a horse water jump.
81	200	Yes	
82	80	Yes	
83	20	Yes	
84	90	Yes	
85	140	Yes	
86	220	No	Completely unsuitable for GCN. Waterfowl and carp.

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	30/04/2018	30/04/2018	05/03/2018	17/05/2018	24/04/2018
Pond ref	78b	78c	78d	80	81
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.6	0.05	0.05	0.8	0.6
SI3 - Pond drying	1	0.1	0.1	0.1	0.9
SI4 - Water quality	0.67	0.67	0.67	1	0.67
SI4 - Shade	0.5	0.3	0.2	1	1
SI6 - Fowl	0.67	1	1	1	0.67
SI7 - Fish	1	1	1	1	1
SI8 - Ponds	1	1	1	0.65	0.65
SI9 - Terr'l habitat	1	1	1	0.67	0.67
SI10 - Macrophytes	0.55	0.4	1	0.3	0.3
HSI	0.77	0.46	0.48	0.63	0.71

Date HSI assessmt	30/05/2018	24/04/2018	24/04/2018	24/04/2018	19/04/2018
Pond ref	82	83	84	85	86
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.8	0.6	0.6	0.25	0.865
SI3 - Pond drying	0.9	0.9	0.9	0.9	0.9

SI4 - Water quality	1	1	1	0.67	1
SI4 - Shade	0.7	1	1	1	1
SI6 - Fowl	0.67	0.67	0.67	0.67	0.01
SI7 - Fish	0.7	1	0.7	1	0.01
SI8 - Ponds	0.9	1	1	1	1
SI9 - Terr'l habitat	1	0.67	0.67	0.67	1
SI10 - Macrophytes	0.3	0.3	0.35	0.4	0.4
HSI	0.76	0.77	0.75	0.70	0.35

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
78b	Nicky Park	2017-27562-CLS-CLS
78c	N/A	
78d	N/A	
80	N/A	
81	Nicky Park	2017-27562-CLS-CLS
82	Nicky Park	2017-27562-CLS-CLS
83	Nicky Park	2017-27562-CLS-CLS
84	Nicky Park	2017-27562-CLS-CLS
85	Nicky Park	2017-27562-CLS-CLS
86	N/A	

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
78b	30/04/2018	Absent
78c	N/A	N/A
78d	N/A	N/A
80	N/A	N/A
81	24/04/2018	Absent
82	30/05/2018	Absent
83	24/04/2018	Absent
84	24/04/2018	Absent
85	24/04/2018	Absent
86	N/A	N/A

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
N/A			

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
N/A		

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use
N/A			

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
87b	Small ephemeral ditch with a small amount of muddy water that is likely to regularly dry out.
87c	Small pond that was almost completely dry at time of visit.
89	Oblong pond connected to drainage pipes.
90	Large pond with a pontoon for fishing.
92	A balancing pond that floods periodically.
93	Large pond on edge of scrub, invasive *Crassula helmsii* present in reedbank.
93a	A shallow, ephemeral woodland scrape that occasionally collects water.
93b	A shallow section of wet woodland with a very slow flow.
100a	A pond in a wooded parkland.
104	A fish breeding pond for stocking nearby fishing lakes.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
87b	250	No	Completely unsuitable for GCN
87c	90	No	Completely unsuitable for GCN
89	230	Yes	
90	180	No	Completely unsuitable for GCN. Waterfowl and carp.
92	120	Yes	
93	20	Yes	
93a	70	No	Completely unsuitable for GCN
93b	0	No - completely unsuitable for great crested newts	The water was eDNA surveyed despite appearing sub-optimal for GCN, the water was a shallow area of wet woodland with a slow flow and lots of sediment. Lab analysis returned an inconclusive result, but the waterbody is considered absent of GCN due to the conditions of the waterbody and negative eDNA results for all ponds within 500m.
100a	0	No	
104	40	No	Completely unsuitable for GCN

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt			24/04/2018	19/04/2018	17/04/2018
Pond ref	87b	87c	89	90	92
SI1 - Location			1	1	1
SI2 - Pond area			0.3	0.85	0.05
SI3 - Pond drying			0.9	0.9	0.1
SI4 - Water quality			1	1	0.67
SI4 - Shade			1	1	1
SI6 - Fowl			0.67	0.01	0.67
SI7 - Fish			1	0.01	1
SI8 - Ponds			1	1	1
SI9 - Terr'l habitat			0.67	1	1
SI10 - Macrophytes			0.5	0.4	0.6
HSI			0.76	0.35	0.52

Date HSI assessmt	17/04/2018	22/02/2018	02/05/2018	07/03/2018	

Pond ref	93	93a	93b	100a	104
SI1 - Location	1	1	1	1	
SI2 - Pond area	1	0.5	0.1	0.1	
SI3 - Pond drying	1	0.1	0.1	0.5	
SI4 - Water quality	0.67	1	0.67	0.67	
SI4 - Shade	1	0.4	0.4	0.3	
SI6 - Fowl	1	1	1	1	
SI7 - Fish	0.7	1	1	1	
SI8 - Ponds	0.9	0.85	0.84	0.65	
SI9 - Terr'l habitat	1	1	1	1	
SI10 - Macrophytes	0.8	0.35	0.4	0.6	
HSI	0.90	0.60	0.50	0.57	

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
87b	N/A	N/A
87c	N/A	N/A
89	Nicky Park	2017-27562-CLS-CLS
90	N/A	N/A
92	Emily Wallace	2016-23525-CLS-CLS
93	Emily Wallace	2016-23525-CLS-CLS
93a	N/A	N/A
93b	N/A	N/A
100a	N/A	N/A
104	N/A	N/A

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
87b	N/A	N/A
87c	N/A	N/A
89	24/04/2018	Absent
90	N/A	N/A
92	17/04/2018	Absent
93	17/04/2018	Absent
93a	N/A	N/A
93b	N/A	N/A
100a	N/A	N/A
104	N/A	N/A

E2.3 Receptor site locations. Continued Back to original section

Site name	OS grid ref eg AB12345678	Administration area - if different from development site	Distance from development site
N/A			

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation Designation?
N/A		

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
104a	Flooded area of woodland that seems semi-permanent.
104b	Fishing lake.
105	Fishing lake.
106	Fishing lake.
107	Fishing lake.
108	Fishing lake.
109	Pond in area of woodland.
110	A raised, chemically treated pond with a water fountain.
111	A raised, chemically treated pond with a water fountain.
112	A raised, chemically treated pond with a water fountain.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
104a	120	No	Access permission denied
104b	130	No	Completely unsuitable for GCN
105	40	No	Completely unsuitable for GCN
106	0	No	Completely unsuitable for GCN
107	30	No	Completely unsuitable for GCN
108	0	No	Completely unsuitable for GCN
109	30	Yes	
110	70	No	Completely unsuitable for GCN
111	80	No	Completely unsuitable for GCN
112	90	No	Completely unsuitable for GCN

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	03/04/2018				
Pond ref	104a	104b	105	106	107
SI1 - Location	1				
SI2 - Pond area	0.5				
SI3 - Pond drying	0.5				
SI4 - Water quality	0.67				
SI4 - Shade	0.2				
SI6 - Fowl	0.67				
SI7 - Fish	0.7				
SI8 - Ponds	1				
SI9 - Terr'l habitat	1				
SI10 - Macrophytes	0.35				
HSI	0.59				

Date HSI assessmt		20/04/2018			
Pond ref	108	109	110	111	112
SI1 - Location		1			
SI2 - Pond area		0.3			
SI3 - Pond drying		0.9			
SI4 - Water quality		0.67			
SI4 - Shade		0.6			

SI6 - Fowl		0.67			
SI7 - Fish		0.7			
SI8 - Ponds		1			
SI9 - Terr'l habitat		1			
SI10 - Macrophytes		0.4			
HSI	0.68				

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
104a		
104b		
105		
106		
107		
108		
109	Nicky Park	2017-27562-CLS-CLS
110		
111		
112		

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
104a		
104b		
105		
106		
107		
108		
109	20/04/2018	Absent
110		
111		
112		

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
113	A raised, chemically treated pond with a water fountain.
114	A shallow, muddy ditch with drainage pipes at either end, not enough water to HSI or eDNA survey.
115	Golf course pond stocked with fish.
115a	A shallow woodland scrape with lots of palmate newts visible.
118	A large lined pond in a golf course.
118a	Not a pond but a flooded area of woodland seen from adjacent land, had dried up when returned to
124a	A pond surrounded by houses and with busy roads between project and location.
125	Large pond surrounded by heathland, close to a main road.
126	Access permission denied. From aerial imagery appears to be a small garden pond.
127	A pond on a former golf course in the process of being turned into a SANG. GCN seen in pond.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
113	130	No	Completely unsuitable for GCN
114	5	No	Completely unsuitable for GCN
115	110	No	Completely unsuitable for GCN
115a	10	Yes	
118	30	Yes	
118a	40	No	Completely unsuitable for GCN
124a	140	No	Isolated from development by dispersal barriers
125	30	Yes	
126	70	No	Access permission denied
127	70	No	Not eDNA surveyed as GCN seen during first population survey

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt			25/04/2018	14/03/2018	25/04/2018
Pond ref	113	114	115	115a	118
SI1 - Location			1	1	1
SI2 - Pond area			0.4	0.2	0.8
SI3 - Pond drying			0.9	1	0.9
SI4 - Water quality			1	0.67	0.67
SI4 - Shade			1	1	1
SI6 - Fowl			0.67	1	0.67
SI7 - Fish			0.01	1	1
SI8 - Ponds			0.72	0.72	0.75
SI9 - Terr'l habitat			0.67	1	1
SI10 - Macrophytes			0.45	0.3	0.3
HSI			0.47	0.70	0.77

Date HSI assessmt			17/04/2018		31/05/2018
Pond ref	118a	124a	125	126	127
SI1 - Location			1		1
SI2 - Pond area			0.9		0.9
SI3 - Pond drying			1		1
SI4 - Water quality			1		1
SI4 - Shade			1		0.2

SI6 - Fowl			0.67		1
SI7 - Fish			0.3		1
SI8 - Ponds			0.84		0.72
SI9 - Terr'l habitat			1		1
SI10 - Macrophytes			0.45		0.35
HSI			0.76		0.73

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
113		
114		
115		
115a	Nicky Park	2017-27562-CLS-CLS
118	Nicky Park	2017-27562-CLS-CLS
118a		
124a		
125	Emily Wallace	2016-23525-CLS-CLS
126		
127		

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
113		
114		
115		
115a	06/06/2018	Absent
118	25/04/2018	Absent
118a		
124a		
125	17/04/2018	Absent
126		
127		

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
127a	Pond full of reeds on former golf course in process of being converted to a SANG.
128	Pond on former golf course in process of being converted to a SANG.
129	Deep, rectangular pond on edge of former golf course in process of being converted to a SANG.
129a	Heavily vegetated pond on former golf course in process of being converted to a SANG.
130	Elliptical pond with island in the middle at end of a field.
130a	Stagnant ditch in woodland with pipes at either end.
130b	Stagnant ditch connected to 130a by a pipe.
130c	Appears to be an artificial woodland pond that may have recently been dug out.
134	Heavily vegetated pond in corner of a field, low water level.
136	Pond in corner of a field, carp present.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
127a	240	Yes	GCN confirmed from aquatic surveys so no eDNA survey
128	30	Yes	GCN confirmed from aquatic surveys so no eDNA survey
129	170	Yes	
129a	10	Yes	
130	150	Yes	
130a	50	No	Completely unsuitable for GCN
130b	70	No	Access permission denied
130c	30	No	Completely unsuitable for GCN
134	90	Yes	
136	170	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	31/05/2018	31/05/2018	31/05/2018	31/05/2018	25/04/2018
Pond ref	127a	128	129	129a	130
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.4	0.6	0.81	0.4	0.65
SI3 - Pond drying	0.5	1	0.9	0.5	0.9
SI4 - Water quality	1	1	1	1	0.67
SI4 - Shade	1	1	0.9	1	1
SI6 - Fowl	1	0.67	0.67	1	0.67
SI7 - Fish	0.7	0.7	0.7	1	0.7
SI8 - Ponds	1	1	1	1	0.9
SI9 - Terr'l habitat	1	1	1	1	0.67
SI10 - Macrophytes	1	1	0.4	1	0.5
HSI	0.82	0.88	0.81	0.85	0.75

Date HSI assessmt	07/02/2018	07/02/2018	08/02/2018	08/05/2018	18/05/2018
Pond ref	130a	130b	130c	134	136
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.2	0.8	0.05	0.6	0.45
SI3 - Pond drying	0.5	0.1	0.1	0.5	0.9
SI4 - Water quality	0.67	0.01	0.33	0.33	1
SI4 - Shade	0.7	0.8	0.2	1	1

SI6 - Fowl	1	1	1	1	0.67
SI7 - Fish	1	1	1	1	0.3
SI8 - Ponds	1	1	1	0.95	1
SI9 - Terr'l habitat	1	1	1	0.67	0.67
SI10 - Macrophytes	0.35	0.3	0.3	0.95	0.45
HSI	0.66	0.42	0.40	0.75	0.69

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
127a		
128		
129	Emily Wallace	2016-23525-CLS-CLS
129a	Emily Wallace	2016-23525-CLS-CLS
130	Nicky Park	2017-27562-CLS-CLS
130a		
130b		
130c		
134	Nicky Park	2017-27562-CLS-CLS
136	Nicky Park	2017-27562-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
127a		
128		
129	31/05/2018	Absent
129a	31/05/2018	Present
130	25/04/2018	Absent
130a		
130b		
130c		
134	08/05/2018	Absent
136	18/05/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
141	Large rectangular garden pond with island in the middle, full of carp.
142a	Long section of standing / slow flowing water below a road embankment, was dry when returned to
68	Not surveyed. From aerials appears to be a pond in woodland on the edge of a golf course.
73	Part of a horse race course, sided with wooden beams and only one edge sloped where potential
94a	Pond surrounded by trees that would connect to 94b when water levels were high enough.
144	Pond with lots of carp in and a fountain.
145	Pond no longer exists.
146	Pond no longer exists.
151	Rectangular pond full of rushes in woodland.
151a	Small circular woodland scrape holding a small amount of water.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
141	70	Yes	
142a	20	No	Completely unsuitable for GCN
68	230	No	Was not originally in survey area.
73	220	Yes	
94a	130	Yes	
144	130	No	Completely unsuitable for GCN
145	240	No	Completely unsuitable for GCN
146	250	No	Completely unsuitable for GCN
151	250	Yes	
151a	240	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	20/06/2018	05/04/2018		08/05/2018	19/04/2018
Pond ref	141	142a	68	73	94a
SI1 - Location	1	1		1	1
SI2 - Pond area	1	0.3		0.1	0.985
SI3 - Pond drying	0.9	0.5		1	0.9
SI4 - Water quality	0.67	0.67		0.67	1
SI4 - Shade	1	1		1	1
SI6 - Fowl	0.67	1		1	0.67
SI7 - Fish	0.01	1		1	0.7
SI8 - Ponds	0.9	1		0.9	1
SI9 - Terr'l habitat	1	1		1	1
SI10 - Macrophytes	0.35	0.3		0.35	0.5
HSI	0.51	0.70		0.68	0.85

Date HSI assessmt	17/05/2018			17/04/2018	17/04/2018
Pond ref	144	145	146	151	151a
SI1 - Location	1			1	1
SI2 - Pond area	0.3			0.5	0.2
SI3 - Pond drying	0.9			0.9	0.9
SI4 - Water quality	0.67			0.67	0.33
SI4 - Shade	1			1	0.5

SI6 - Fowl	1			0.67	1
SI7 - Fish	0.01			0.7	1
SI8 - Ponds	0.95			1	1
SI9 - Terr'l habitat	0.33			1	1
SI10 - Macrophytes	0.35			0.4	0.35
HSI	0.43			0.75	0.63

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
141	Ciaran Meehan	2017-27439-CLS-CLS
142a		
68		
73	Emily Wallace	2016-23525-CLS-CLS
94a	Nicky Park	2017-27562-CLS-CLS
144		
145		
146		
151	Nicky Park	2017-27562-CLS-CLS
151a	Nicky Park	2017-27562-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
141	20/06/2018	Absent
142a		
68		
73	08/05/2018	Present
94a	19/04/2018	Absent
144		
145		
146		
151	17/04/2018	Absent
151a	17/04/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
151b	Pond at side of footpath through heathland.
153	Large pond in heathland with lots of rushes.
155	Irregular shaped pond in heathland.
155a	Very small pond in heathland.
156	Round pond surrounded by long grass and gorse in heathland.
156a	Ditch running through heathland.
158	Round pond with gorse and willow on banks, in heathland.
159	Circular scrape in heathland.
160	Scrape in heathland.
161	Circular pond surrounded by gorse in heathland.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
151b	140	Yes	
153	40	Yes	
155	20	Yes	
155a	0	No	Pond not revisited before cut-off date for eDNA sampling.
156	50	Yes	
156a	50	No	Pond not revisited before cut-off date for eDNA sampling.
158	30	Yes	
159	180	Yes	
160	150	Yes	
161	60	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	17/04/2018	17/04/2018	18/04/2018	14/03/2018	17/04/2018
Pond ref	151b	153	155	155a	156
SI1 - Location	1	1	1	1	1
SI2 - Pond area	1	0.8	0.25	0.05	0.1
SI3 - Pond drying	0.5	0.9	0.9	1	0.9
SI4 - Water quality	0.33	0.67	0.67	0.67	0.67
SI4 - Shade	1	1	1	1	1
SI6 - Fowl	1	0.67	1	1	1
SI7 - Fish	1	0.7	0.7	1	1
SI8 - Ponds	1	1	1	1	1
SI9 - Terr'l habitat	1	1	1	1	1
SI10 - Macrophytes	0.4	0.45	0.8	0.35	0.6
HSI	0.76	0.80	0.78	0.64	0.72

Date HSI assessmt	17/04/2018	18/04/2018	17/04/2018	17/04/2018	17/04/2018
Pond ref	156a	158	159	160	161
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.05	0.3	0.2	0.4	0.1
SI3 - Pond drying	1	1	1	1	0.9
SI4 - Water quality	0.67	0.33	0.67	0.67	0.67
SI4 - Shade	1	1	1	1	1

SI6 - Fowl	1	1	1	1	1
SI7 - Fish	1	0.7	1	1	1
SI8 - Ponds	1	1	1	1	1
SI9 - Terr'l habitat	1	1	1	1	1
SI10 - Macrophytes	0.7	0.95	0.5	0.4	0.5
HSI	0.69	0.76	0.76	0.80	0.70

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
151b	Nicky Park	2017-27562-CLS-CLS
153	Nicky Park	2017-27562-CLS-CLS
155	Nicky Park	2017-27562-CLS-CLS
155a		
156	Nicky Park	2017-27562-CLS-CLS
156a		
158	Nicky Park	2017-27562-CLS-CLS
159	Nicky Park	2017-27562-CLS-CLS
160	Nicky Park	2017-27562-CLS-CLS
161	Nicky Park	2017-27562-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
151b	17/04/2018	Absent
153	17/04/2018	Absent
155	18/04/2018	Absent
155a		
156	17/04/2018	Absent
156a		
158	18/04/2018	Absent
159	17/04/2018	Absent
160	17/04/2018	Absent
161	17/04/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
164	Access permission denied. From aerial photos appears to be a small pond in area of woodland.
166	Almost two separate round ponds except for connecting section of water between.
166a	Small round pond in heathland.
167	Small pond next to an access track in heathland.
168	Pond near an access track and surrounded by gorse in heathland.
169	Large pond on the edge of an access track in heathland.
94b	Pond surrounded by trees that would connect to 94a when water levels were high enough.
95	Balancing pond with metal sluice gate at northeast corner.
96	Small pond surrounded by lots of willows.
178	Pond within woodland at edge of heathland.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
164	230	No	Access permission denied
166	90	Yes	
166a	50	Yes	
167	200	Yes	
168	230	Yes	
169	0	Yes	
94b	230	Yes	
95	200	Yes	
96	200	Yes	
178	0	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt		17/04/2018	08/04/2018	18/04/2018	18/04/2018
Pond ref	164	166	166a	167	168
SI1 - Location		1	1	1	1
SI2 - Pond area		0.4	0.3	0.05	0.25
SI3 - Pond drying		0.9	0.5	1	1
SI4 - Water quality		0.67	0.67	0.67	0.67
SI4 - Shade		1	1	1	1
SI6 - Fowl		1	1	1	1
SI7 - Fish		1	1	1	1
SI8 - Ponds		1	1	1	1
SI9 - Terr'l habitat		1	1	1	1
SI10 - Macrophytes		0.5	0.5	0.75	0.75
HSI		0.81	0.74	0.69	0.81

Date HSI assessmt	17/04/2018	19/04/2018	19/04/2018	19/04/2018	18/04/2018
Pond ref	169	94b	95	96	178
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.55	1	0.55	0.05	0.8
SI3 - Pond drying	0.5	0.895	0.9	0.9	0.5
SI4 - Water quality	0.33	1	0.33	0.67	0.67
SI4 - Shade	1	1	1	0.5	1

SI6 - Fowl	1	0.67	0.67	1	1
SI7 - Fish	1	0.7	1	1	1
SI8 - Ponds	1	1	1	1	1
SI9 - Terr'l habitat	1	1	0.67	0.67	1
SI10 - Macrophytes	0.45	0.4	1	0.35	0.5
HSI	0.73	0.84	0.77	0.57	0.82

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
164		
166	Nicky Park	2017-27562-CLS-CLS
166a	Nicky Park	2017-27562-CLS-CLS
167	Nicky Park	2017-27562-CLS-CLS
168	Nicky Park	2017-27562-CLS-CLS
169	Nicky Park	2017-27562-CLS-CLS
94b	Nicky Park	2017-27562-CLS-CLS
95	Nicky Park	2017-27562-CLS-CLS
96	Nicky Park	2017-27562-CLS-CLS
178	Nicky Park	2017-27562-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
164		
166	17/04/2018	Absent
166a	08/05/2018	Absent
167	18/04/2018	Absent
168	18/04/2018	Absent
169	17/04/2018	Absent
94b	19/04/2018	Absent
95	19/04/2018	Absent
96	19/04/2018	Absent
178	18/04/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
178a	Pond that has formed below track, appears permanent and peaty.
180	Lowest of three large connected pond, duckweed on 80% of surface.
180a	Shallow depression holding water in woodland, was dry when returned to eDNA survey.
183	Middle of three large ponds that flow into each other.
97	Large pond in small strip of woodland and heathland near road.
208a	Woodland pond by horse pasture.
190	Pond with willow trees growing in the margin, on edge of managed grassland.
191	Medium-sized pond in managed grassland.
191a	Very small plastic based pond as part of a 'display garden' for a garden centre.
192	Pond in golf course fairway, dominated by large reeds.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
178a	0	No	Pond not revisited before cut-off date for eDNA sampling.
180	100	Yes	
180a	10	No	Completely unsuitable for GCN
183	170	Yes	
97	30	No	Completely unsuitable for GCN
208a	220	Yes	
190	150	Yes	
191	0	Yes	
191a	200	No	Completely unsuitable for GCN
192	60	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	05/04/2018	14/05/2018	05/04/2018	14/05/2018	19/04/2018
Pond ref	178a	180	180a	183	97
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.1	0.88	0.1	0.955	0.8
SI3 - Pond drying	0.9	0.9	0.1	0.9	0.9
SI4 - Water quality	1	0.67	1	0.67	0.67
SI4 - Shade	1	0.8	0.4	0.4	1
SI6 - Fowl	1	0.67	1	0.67	0.67
SI7 - Fish	1	0.7	1	0.7	0.7
SI8 - Ponds	1	1	1	1	1
SI9 - Terr'l habitat	1	1	1	1	0.67
SI10 - Macrophytes	0.45	0.5	0.3	0.45	0.8
HSI	0.73	0.79	0.51	0.74	0.81

Date HSI assessmt	09/02/2018	01/05/2018	13/03/2018		16/04/2018
Pond ref	208a	190	191	191a	192
SI1 - Location	1	1	1		1
SI2 - Pond area	0.8	0.8	0.9		0.1
SI3 - Pond drying	0.5	0.9	0.9		0.1
SI4 - Water quality	0.67	1	1		0.67
SI4 - Shade	0.2	0.3	1		1

SI6 - Fowl	1	0.67	0.67		0.67
SI7 - Fish	1	0.7	0.7		0.7
SI8 - Ponds	1	1	1		1
SI9 - Terr'l habitat	1	0.67	0.67		0.67
SI10 - Macrophytes	0.35	0.35	0.65		0.85
HSI	0.67	0.69	0.84		0.53

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
178a		
180	Nicky Park	2017-27562-CLS-CLS
180a		
183	Nicky Park	2017-27562-CLS-CLS
97	Nicky Park	2017-27562-CLS-CLS
208a	Emily Wallace	2016-23525-CLS-CLS
190	Nicky Park	2017-27562-CLS-CLS
191	Nicky Park	2017-27562-CLS-CLS
191a		
192	Emily Wallace	2016-23525-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
178a		
180	14/05/2018	Present
180a		
183	14/05/2018	Absent
97	19/04/2018	Absent
208a	09/05/2018	Absent
190	01/05/2018	Absent
191	16/04/2018	Absent
191a		
192	16/04/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
193	Pond in middle of a golf course fairway, connected at either side to a drainage ditch.
194	Shallow scrape connected to a ditch on either end, on edge of a golf course fairway.
194a	Shallow, oval pond on egde of golf course fairway.
194b	Triangluar pond on edge of golf tee, dominated by bulrush.
194c	Elongated pond on edge of golf tee, possibly connected to 194b by a pipe under footpath.
194d	Scrape on golf course with four pipes leading into it, likely an overflow that holds water occasionally.
195	Small pond under trees and amongst a patch of brambles in golf course.
196	Large, irregular shaped pond on golf course.
197	Oval shaped pond on golf course fairway.
198	Pond with bulrush in the middle and shrubs on banks, on a golf course.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
193	80	Yes	
194	0	Yes	
194a	0	Yes	
194b	100	Yes	
194c	90	Yes	
194d	70	No	Completely unsuitable for GCN
195	5	Yes	
196	5	Yes	
197	20	Yes	
198	10	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	16/04/2018	16/04/2018	13/03/2018	13/03/2018	13/03/2018
Pond ref	193	194	194a	194b	194c
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.05	0.1	0.2	0.1	0.55
SI3 - Pond drying	0.9	0.1	1	1	1
SI4 - Water quality	0.67	1	0.67	1	1
SI4 - Shade	1	1	1	0.8	1
SI6 - Fowl	0.67	1	0.67	0.67	0.67
SI7 - Fish	0.7	0.7	1	1	0.7
SI8 - Ponds	1	1	1	1	1
SI9 - Terr'l habitat	1	0.67	0.67	0.67	0.67
SI10 - Macrophytes	0.85	0.8	0.35	0.9	0.4
HSI	0.64	0.57	0.68	0.71	0.77

Date HSI assessmt	13/03/2018	16/04/2018	16/04/2018	16/04/2018	16/04/2018
Pond ref	194d	195	196	197	198
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.05	0.1	0.75	0.4	0.1
SI3 - Pond drying	0.1	0.1	0.9	0.9	0.1
SI4 - Water quality	0.67	0.67	1	1	1
SI4 - Shade	1	0.2	1	1	1

SI6 - Fowl	1	1	0.67	0.67	1
SI7 - Fish	1	1	0.7	0.7	1
SI8 - Ponds	1	1	1	1	1
SI9 - Terr'l habitat	1	0.67	0.67	0.67	0.67
SI10 - Macrophytes	0.3	0.35	0.4	0.3	0.3
HSI	0.50	0.45	0.78	0.71	0.54

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
193	Emily Wallace	2016-23525-CLS-CLS
194	Ciaran Meehan	2017-27439-CLS-CLS
194a	Ciaran Meehan	2017-27439-CLS-CLS
194b	Ciaran Meehan	2017-27439-CLS-CLS
194c	Ciaran Meehan	2017-27439-CLS-CLS
194d		
195	Ciaran Meehan	2017-27439-CLS-CLS
196	Ciaran Meehan	2017-27439-CLS-CLS
197	Ciaran Meehan	2017-27439-CLS-CLS
198	Ciaran Meehan	2017-27439-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
193	16/04/2018	Absent
194	16/04/2018	Absent
194a	16/04/2018	Present
194b	16/04/2018	Absent
194c	16/04/2018	Present
194d		
195	16/04/2018	Absent
196	16/04/2018	Absent
197	16/04/2018	Absent
198	16/04/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
199	Circular pond connected to ditches on golf course.
200	Irregular shaped pond between two fairways on a golf course.
201	Oval pond on golf course fairway.
202	Large pond with large island in the middle on golf course.
202a	Small pond on edge of fairway on golf course.
203	Woodland pond filled with lots of dead branches, on edge of golf course.
204	Long rectangular pond on edge of golf course fairway.
204a	Large triangular pond on border of fairway and woodland on golf course.
98	Small woodland pond with lots of young willow growing in it.
206	Golf course pond connected to 206a by an inflow pipe.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
199	10	Yes	
200	30	Yes	
201	50	Yes	
202	70	Yes	
202a	20	Yes	
203	10	Yes	
204	90	Yes	
204a	20	Yes	
98	130	Yes	
206	40	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	13/03/2018	13/03/2018	13/03/2018	18/05/2018	18/05/2018
Pond ref	199	200	201	202	202a
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.6	0.6	0.25	0.985	0.6
SI3 - Pond drying	0.9	0.9	0.9	0.9	0.9
SI4 - Water quality	0.67	1	1	0.67	1
SI4 - Shade	1	1	1	1	1
SI6 - Fowl	0.67	0.67	0.67	0.67	0.67
SI7 - Fish	1	0.7	0.7	0.7	0.7
SI8 - Ponds	1	1	1	0.85	0.85
SI9 - Terr'l habitat	0.67	0.67	1	0.67	0.33
SI10 - Macrophytes	0.4	0.35	0.35	0.45	0.9
HSI	0.76	0.75	0.72	0.77	0.76

Date HSI assessmt	16/04/2018	18/05/2018	18/05/2018	19/04/2018	18/05/2018
Pond ref	203	204	204a	98	206
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.1	1	0.91	0.05	0.6
SI3 - Pond drying	0.5	0.9	0.9	0.5	0.9
SI4 - Water quality	0.67	0.67	0.67	1	0.67
SI4 - Shade	0.2	1	1	0.3	1

SI6 - Fowl	1	0.67	0.67	1	0.67
SI7 - Fish	0.7	0.7	0.7	1	0.3
SI8 - Ponds	1	0.85	0.85	1	0.84
SI9 - Terr'l habitat	1	0.67	0.67	0.67	0.67
SI10 - Macrophytes	0.35	0.5	0.65	0.35	0.65
HSI	0.53	0.78	0.79	0.53	0.70

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
199	Ciaran Meehan	2017-27439-CLS-CLS
200	Ciaran Meehan	2017-27439-CLS-CLS
201	Ciaran Meehan	2017-27439-CLS-CLS
202	Nicky Park	2017-27562-CLS-CLS
202a	Nicky Park	2017-27562-CLS-CLS
203	Ciaran Meehan	2017-27439-CLS-CLS
204	Nicky Park	2017-27562-CLS-CLS
204a	Nicky Park	2017-27562-CLS-CLS
98	Nicky Park	2017-27562-CLS-CLS
206	Nicky Park	2017-27562-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
199	16/04/2018	Absent
200	16/04/2018	Absent
201	16/04/2018	Present
202	18/05/2018	Absent
202a	18/05/2018	Absent
203	16/04/2018	Absent
204	18/05/2018	Absent
204a	18/05/2018	Absent
98	19/04/2018	Absent
206	18/05/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
206a	Small golf course pond connected to 206 by an inflow pipe under a footpath.
208	Large pond surrounded by trees, possibly used for irrigation.
211	Pond with willows growing in it, surrounded by managed grassland. Too shallow/dry to eDNA survey.
213	Pond heavily overgrown by brambles, nettles and possibly Japanese knotweed (found very nearby).
214	Pond heavily overgrown and unable to reach bank to eDNA survey. HSI assessment from
215	Unable to get close enough to see whether holding water due to dense vegetation. Reeds seen
99	Small woodland scrape.
218	Access permission denied. From aerial imagery appears to be a large rectangular farm pond.
220	Pond no longer exists.
221	Pond no longer exists.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
206a	50	Yes	
208	170	Yes	
211	70	No	Completely unsuitable for GCN
213	50	No	Serious health & safety concerns. Too heavily overgrown to reach banks.
214	0	No	Serious health & safety concerns. Too heavily overgrown to reach banks.
215	120	No	Serious health & safety concerns. Too heavily overgrown to reach banks.
99	100	Yes	
218	160	No	Access permission denied
220	240	No	Completely unsuitable for GCN
221	0	No	Completely unsuitable for GCN

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	18/05/2018	09/02/2018	01/05/2018	04/06/2018	04/06/2018
Pond ref	206a	208	211	213	214
SI1 - Location	1	1	1	1	1
SI2 - Pond area	0.6	0.88	0.3	0.75	0.8
SI3 - Pond drying	0.9	0.9	0.1	0.9	0.9
SI4 - Water quality	0.67	1	0.67	0.67	0.33
SI4 - Shade	1	0.8	0.2	0.8	0.6
SI6 - Fowl	0.67	0.67	1	0.67	0.67
SI7 - Fish	0.7	0.7	1	0.7	0.7
SI8 - Ponds	0.84	0.95	0.84	0.72	0.72
SI9 - Terr'l habitat	0.67	0.67	0.33	1	0.33
SI10 - Macrophytes	1	0.35	1	0.35	0.35
HSI	0.79	0.76	0.51	0.73	0.59

Date HSI assessmt		19/04/2018			
Pond ref	215	99	218	220	221
SI1 - Location		1			
SI2 - Pond area		0.1			

SI3 - Pond drying		1			
SI4 - Water quality		1			
SI4 - Shade		0.3			
SI6 - Fowl		1			
SI7 - Fish		1			
SI8 - Ponds		1			
SI9 - Terr'l habitat		0.67			
SI10 - Macrophytes		0.35			
HSI	0.61				

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
206a	Nicky Park	2017-27562-CLS-CLS
208	Emily Wallace	2016-23525-CLS-CLS
211		
213		
214		
215		
99	Nicky Park	2017-27562-CLS-CLS
218		
220		
221		

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
206a	18/05/2018	Absent
208	22/04/2018	Absent
211		
213		
214		
215		
99	19/04/2018	Absent
218		
220		
221		

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
223	Circular pond managed by local wildlife group.
223a	Large rectangular pond, found after eDNA survey season.
224	Semi-permanent wet ditch with stagnant water between school playing field and road.
102	Large pond with steep banks surrounded by dense vegetation.
103	Woodland pond with steep banks and road bordering, unable to reach to eDNA. Very isolated.
103a	Large fishing lake.
103b	Large fishing lake.
103c	Large fishing lake.
108a	A pond isolated in the middle of a busy junction leading onto the A331.
186	Second highest of four large ponds that flow into one another, largest of all.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
223	10	Yes	
223a	5	No - other reason	Pond found after 2018 survey season.
224	0	Yes	
102	0	Yes	
103	30	No	Serious health & safety concerns
103a	5	No	Completely unsuitable for GCN
103b	10	No	Completely unsuitable for GCN
103c	30	No	Completely unsuitable for GCN
108a	210	No	Isolated from development by dispersal barriers
186	220	Yes	

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt	06/03/2018	04/10/2018	05/06/2018	19/04/2018	
Pond ref	223	223a	224	102	103
SI1 - Location	1	1	1	1	
SI2 - Pond area	0.8	0.985	0.2	0.9	
SI3 - Pond drying	0.9	1	0.5	1	
SI4 - Water quality	1	0.67	0.33	0.9	
SI4 - Shade	0.8	0.8	0.2	0.67	
SI6 - Fowl	0.67	0.67	1	0.3	
SI7 - Fish	0.7	0.7	0.7	1	
SI8 - Ponds	0.75	0.75	0.45	1	
SI9 - Terr'l habitat	1	1	0.67	1	
SI10 - Macrophytes	0.5	0.45	0.3	0.4	
HSI	0.80	0.78	0.46	0.76	

Date HSI assessmt					14/05/2018
Pond ref	103a	103b	103c	108a	186
SI1 - Location					1
SI2 - Pond area					0.8
SI3 - Pond drying					0.9
SI4 - Water quality					0.67
SI4 - Shade					0.5

SI6 - Fowl					0.67
SI7 - Fish					0.7
SI8 - Ponds					1
SI9 - Terr'l habitat					0.67
SI10 - Macrophytes					0.45
HSI					0.71

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
223	Emily Wallace	2016-23525-CLS-CLS
223a		
224	Ciaran Meehan	2017-27439-CLS-CLS
102		
103		
103a		
103b		
103c		
108a		
186	Nicky Park	2017-27562-CLS-CLS

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
223	18/06/2018	Present
223a		
224	05/06/2018	Absent
102		
103		
103a		
103b		
103c		
108a		
186	14/05/2018	Absent

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Records of additional pond(s) surveyed

Please use this page to record extra data, if more than 10 ponds were surveyed - Ponds 21 - 30

C3.3i continued Ponds 21 - 30 Back to Original section

Pond ref	Description
210	Not surveyed. From aerials appears to be a pond in amenity grassland or a small orchard.
212	Not surveyed. From aerials appears to be a pond in arable field.
108b	Fishing lake.
108c	Fishing lake.
108d	Fishing lake.

C3.3ii continued Back to Original section

Pond ref	Distance (m)	Surveyed or not?	If not why not?
210	20	No - other reason	Not within original survey area.
212	120	No - other reason	Not within original survey area.
108b	170	No	Completely unsuitable for GCN
108c	100	No	Completely unsuitable for GCN
108d	70	No	Completely unsuitable for GCN

C3.5 additional ponds HSI score Back to Original section

Date HSI assessmt					
Pond ref	210	212	108b	108c	108d
SI1 - Location					
SI2 - Pond area					
SI3 - Pond drying					
SI4 - Water quality					
SI4 - Shade					
SI6 - Fowl					
SI7 - Fish					
SI8 - Ponds					
SI9 - Terr'l habitat					
SI10 - Macrophytes					
HSI					

Date HSI assessmt					
Pond ref					
SI1 - Location					
SI2 - Pond area					
SI3 - Pond drying					
SI4 - Water quality					
SI4 - Shade					

SI6 - Fowl					
SI7 - Fish					
SI8 - Ponds					
SI9 - Terr'l habitat					
SI10 - Macrophytes					
HSI					

C4.2iii Continued Back to Original section

Pond ref	GCN Surveyor / Accredited Agent	Licence Reference
210		
212		
108b		
108c		
108d		

4.2c Continued Back to Original section

Pond reference	Date eDNA sample taken	Result (presence or absence)
210		
212		
108b		
108c		
108d		

E2.3 Receptor site locations. Continued Back to original section

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

E2.4 Receptor site(s): continued Back to original section

Site name	Site Ownership	Conservation

E2.5 Receptor site(s): continued Back to original section

Site name	Habitat description	Size (ha)	Adjacent Land Use

Annex B E1 The Mitigation Solution

1.1 Embedded Mitigation

1.1.1 Where design measures have been incorporated into the project to avoid or reduce impacts (including to great crested newts (GCN)), they are termed 'embedded measures'. For full descriptions of proposed mitigation refer to the Register of Environmental Actions and Commitments (REAC) included in Chapter 16 Environmental Management and Mitigation of the Environmental Statement.

1.1.2 The following measures are embedded into the design of the project and have relevance to GCN at locations where this species is present:

- Commitment to only utilise a 10m width when crossing through boundaries between fields where these include hedgerows, trees or watercourses (O1).

1.1.3 Where possible, the alignment of the Order Limits and Limits of Deviation (the area within which the pipeline could be installed) have been selected to reduce the loss of terrestrial GCN habitat and increase the distance between construction areas and known GCN ponds. Examples of embedded mitigation to avoid or reduce impacts to GCN comprise:

- Pond 39. Order Limits moved approximately 40m to the south over a distance of approximately 70m to increase the distance from Pond 39 and to make use of a hedgerow gap to reduce impacts to terrestrial habitat.
- Pond 129a. A construction compound was originally positioned immediately adjacent to this pond but has been relocated to avoid impacts to aquatic habitat and reduce impacts to terrestrial habitat.
- Pond 194a. Order Limits realigned to avoid this pond.

1.1.4 Furthermore, the Order Limits have been designed to account for GCN mitigation areas. The proposed locations of GCN release sites, hibernacula and refugia are all positioned within the Order Limits. There would be no construction activity within these mitigation areas. As such, the mitigation detailed in this document is deliverable within the project's Order Limits (assuming that development consent and a licence are granted).

1.2 Good Practice Mitigation

1.2.1 Good practice mitigation is set out in the REAC included in the ES. In addition to the specific measures secured through a European Protected Species Mitigation Licence (EPSML), the following REAC commitments have relevance to GCN (reference numbers in brackets relate to the relevant action or commitment in the REAC, e.g. O1):

- The contractor(s) would comply with relevant protected species legislation including with regards to GCN. Appropriate licences would be obtained where necessary from Natural England for all works affecting protected species as identified by the Environmental Statement and through pre-construction surveys.

All applicable works would be undertaken in accordance with the relevant mitigation requirements and conditions set out in those licences (G43).

- Pre-construction surveys would be completed if existing baseline survey data need to be updated or supplemented (G33).
- Where sensitive features are to be retained within or immediately adjacent to the Order Limits, an appropriate buffer zone would be created where this extends within the Order Limits. The buffers would be established using appropriate fencing and signage. Suitable methodologies would be produced to ensure that construction works are undertaken in a manner that reduces the risk of damage or disturbance to the sensitive feature (G40).
- Ecological considerations would be included in the induction talks for all relevant site personnel. Species-specific or location-specific toolbox talks would also be provided, as required (G172).
- A suitably experienced Environmental Manager would be appointed for the duration of the construction phase. A qualified and experienced Environmental Clerk of Works (ECoW) would be available during the construction phase, to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the Construction Environmental Management Plan. The ECoW would be supported as necessary by appropriate specialists (G3).
- The ECoW would monitor that the works proceed in accordance with relevant environmental Development Consent Order requirements and adhere to the required mitigation measures. The ECoW would also be involved with any targeted additional mitigation strategies that may be required (G41).
- Vegetation clearance, retention, protection and replanting/reinstatement drawings would be produced prior to the construction phase. The contractor(s) would implement these plans including agreed mitigation where practicable (G87).
- Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements). (G88).

1.3 Mitigation Measures with Respect to this Licence Application

1.3.1 This section describes the proposed mitigation measures for project construction activities within 250m of all ponds with confirmed GCN presence.

1.3.2 The proposed mitigation considers the proximity of GCN ponds to the Order Limits, the assumed population size (where available), the quality of terrestrial habitat, the connectivity of habitats and the likelihood of fragmentation impacts. Unless otherwise stated the mitigation described in this document would be undertaken for each GCN pond or metapopulation.

1.3.3 Where required in accordance with Figure E4a, GCN exclusion fencing would be installed where the Order Limits pass through terrestrial habitat suitable for GCN within 250m of confirmed GCN ponds.

1.3.4 The 250m exclusion zone has been proposed based on the temporary, localised and reversible nature of the impacts associated with pipeline installation. A 250m zone is considered to be standard practice for pipeline projects of this nature (e.g. multiple EPSML granted for water utility pipelines based on a 250m exclusion area) and takes into account the conclusions on the efficacy of trapping efforts given in English Nature's research report no. 576 (English Nature, 2004). That study states that whilst efforts to capture GCN within 100m of a breeding pond are effective when employing exclusion fencing and pitfall trapping, careful consideration of this technique should be given at distances greater than 100m and at distances between 200m and 250m, capture operations may not be appropriate. In addition, although GCN have been recorded moving up to 1.3km between ponds (English Nature, 2001), maximum routine migration distances are estimated as being within approximately 250m from breeding ponds (English Nature, 2004).

1.3.5 During installation, all works within 250m of confirmed GCN ponds with potential to kill or injure these animals would be within the exclusion fence (at locations where an exclusion fence is proposed).

1.3.6 Exclusion fencing would be designed in accordance with Section 8.4.2 and Figure 4 of the GCN Mitigation Guidelines (English Nature, 2001). Exclusion fencing would be installed along the boundary of the Order Limits. The area to be trapped would be enclosed through sections of 'internal' fence being placed perpendicular to the Order Limits at either end of the 250m buffer; these sections of fence would be removed on completion of the trapping effort a to allow construction activity within the Order Limits. At the interface with the 250m buffer, 5m long 'returns' would be installed to prevent GCN from entering the construction area once the internal fences are removed.

1.3.7 Drift fencing would be installed at roughly 100m intervals depending on local topography to compartmentalise larger trapping areas to increase trapping efficiency, as shown in Figure E4a.

1.3.8 All GCN fencing would be installed under the supervision of the ECoW.

1.3.9 Pitfall traps and artificial refuges (e.g. carpet tiles or squares of roofing felt) would be installed in accordance with Section 8.4.2.2 of the GCN Mitigation Guidelines (English Nature, 2001) at approximately 10m intervals i.e. pitfall traps and refuges would alternate so there is a 5m gap between each pitfall trap and the next refuge.

1.3.10 For areas supporting small GCN populations, trapping would be undertaken for a minimum of 30 nights and would continue until five nights with no captures have been achieved. For areas supporting medium populations, a minimum of 60 nights plus five clear nights would be undertaken, unless otherwise stated below. Trapping would continue beyond these minimum periods as required, until no GCN have been found for five consecutive nights of trapping. Trapping would be undertaken in suitable conditions between approximately mid-March and mid-October at the discretion of the ECoW. Pitfall traps would be closed in the event they become flooded during periods of high rainfall or during prolonged periods of unsuitable weather (e.g. during the hibernation season if trapping had not been completed).

1.3.11 Any GCN found within the exclusion area would be translocated to the nearest receptor area (see details below and Figure E2).

1.3.12 Once the pitfall trapping period is complete and five clear days have been achieved under suitable weather conditions, a fingertip search and/or destructive search of any affected refuge habitat (e.g. woodland, hedgerow, scrub, piled materials) would take place in advance of vegetation removal or topsoil stripping, as necessary. This would be undertaken or supervised by the ECoW.

1.3.13 Hibernacula and/or refugia would be constructed within receptor areas as specified below. Hibernacula design would be in accordance with good practice guidelines, such as Figure 3 of the GCN Mitigation Guidelines (English Nature, 2001).

1.3.14 The sections of internal fencing (i.e. drift fences and fence at either end of the trapping areas) would be removed once the above measures are complete to allow free movement of plant and machinery. The fence returns would prevent GCN re-entering the construction area.

1.3.15 Removal of all fencing would be undertaken on completion of all potentially harmful activities at that location i.e. fencing would not be retained unnecessarily until the end of the entire project's construction phase if local works have finished. This would reduce any potential fragmentation effects caused by the exclusion fence. Fence removal would be completed under supervision of the ECoW and during the GCN active season (unless the ECoW was satisfied that the risk of GCN hibernating alongside the fence was negligible).

1.4 Pond-specific Information

1.4.1 This section summarises the pond-specific mitigation that would be adopted.

1.4.2 It should be noted that the Order Limits include areas that would not be impacted by construction activity (e.g. mitigation areas for planting, GCN release sites, locations for refugia). As such, the distance between a pond and the Order Limits does not always correlate with the distance between the pond and an impact. Where these differ, both distances are provided in the pond descriptions below.

1.4.3 All relevant photos of ponds and their surrounding terrestrial habitat can be found in Figure C3.4.

Pond 11

1.4.4 Pond 11 is located approximately 125m from the Order Limits and approximately 180m from the closest proposed construction area. The pond supports a small population of GCN. Habitats within 250m of the pond that would be temporarily impacted are limited to arable habitat which is considered sub-optimal for GCN.

1.4.5 The mitigation strategy for small GCN populations detailed in Section 1.3 of this document would be applied for affected areas within the Order Limits associated with Pond 11, i.e. a minimum of 30 nights trapping plus five clear nights would be undertaken.

1.4.6 The receptor area for Pond 11 (Receptor Area A) is located within a hedgerow to the south of the trapping area, approximately 125m from the pond (Figure E2). A single hibernaculum would be constructed in the receptor area within the Order Limits (Figure E3.1).

Pond 39

1.4.7 Pond 39 is located approximately 25m from the Order Limits, and approximately 130m from the closest proposed construction area. The pond supports a small population of GCN. Habitats within 250m of the pond which would be temporarily impacted are limited to arable habitat, which is considered sub-optimal for GCN, and a short section of hedgerow (maximum 10m, although this may be reduced if it is possible to align the pipeline with an existing gap within the Limits of Deviation), which is considered optimal for GCN.

1.4.8 The standard mitigation strategy for small GCN populations detailed above would be applied for Pond 39, i.e. a minimum of 30 nights trapping plus five clear nights would be undertaken.

1.4.9 The receptor area for Pond 39 (Receptor Area B) is located within an area of scrub to the north of the trapping area, approximately 25m from the pond at its closest point (Figure E2). A single hibernaculum would be constructed within the receptor area (Figure E3.1).

Pond 41

1.4.10 Pond 41 is located approximately 180m from the Order Limits and the proposed construction area. Although the pond is separated from the construction area by a road (B3004, Caker's Lane), this is not considered a major barrier to GCN dispersal due to an absence of curb stones.

1.4.11 There are no known GCN ponds within 500m of Pond 41. Due to the isolation of the pond, a small population of GCN is assumed (in line with Natural England (2015), population estimate surveys have not been undertaken as the Order Limits are more than 100m from the pond and only temporary habitat loss of damage would occur). Habitats within 250m of the pond which would be impacted are limited to arable habitat which is considered sub-optimal for GCN.

1.4.12 The standard mitigation strategy for small GCN populations detailed above would be applied for Pond 41 i.e. a minimum of 30 nights trapping plus five clear nights would be undertaken.

1.4.13 The receptor area for Pond 41 (Receptor Area C) is located within the Order Limits and immediately adjacent to the trapping area (Figure E2).

Pond 50

1.4.14 Pond 50 lies within the Order Limits but in an area specifically included for GCN mitigation (i.e. a receptor area and location for a hibernaculum), therefore it would not be directly impacted by pipeline installation.

1.4.15 The pond is approximately 85m from the proposed construction area. The pond is considered to support a medium sized breeding population of GCN based upon records received from the Hampshire Biological Information Centre suggesting a peak count of 59 GCN in 2013. There are no known GCN ponds within 500m of Pond 50.

1.4.16 Habitats within 250m of the pond which would be temporarily impacted are dominated by arable habitat which is considered to typically be sub-optimal for GCN. A 10m wide section of hedgerow would be temporarily removed, this is considered optimal for GCN as it connects to Pond 50. Approximately 150m from Pond 50, grassland with scattered scrub would be temporarily impacted and this is also considered to be optimal habitat, although the distance from the pond reduces the risk of GCN presence.

1.4.17 A standard mitigation strategy for medium GCN populations, detailed in Section 1.3 of this document, would be applied for Pond 50, i.e. a minimum of 60 nights trapping plus five clear nights would be undertaken.

1.4.18 Pond 50 is located within the receptor area for GCN (Receptor Area D) (Figure E2). A single hibernaculum would be constructed within the receptor area (Figure E3.1).

Ponds 55, 56, 57 and 57a (Upper Froyle)

1.4.19 Pond 55 is 40m from the nearest point of the Order Limits and over 55m from the construction area.

1.4.20 Pond 56 is approximately 230m from the nearest point of the Order Limits associated with construction activity.

1.4.21 Pond 57 is approximately 190m from the Order Limits associated with construction activity.

1.4.22 Pond 57a lies within the Order Limits in an area designated for GCN mitigation, it is approximately 30m from the construction area.

1.4.23 These ponds lie within 500m of each other and so are considered part of the same metapopulation. All of the ponds are to the north of the Order Limits.

1.4.24 The metapopulation is assumed to support a medium population of GCN. Habitats within 250m of the pond that would be temporarily impacted are limited to grazed grassland, a ditch and a hedgerow. The suitability of the grassland to support GCN would depend on how closely it has been grazed at time when installation would commence.

1.4.25 A modified mitigation strategy for medium GCN populations would be applied for this metapopulation. The modification relates to trapping effort.

1.4.26 With the exception of one small ditch and one hedgerow that would be crossed by the Order Limits, the construction area would be restricted to a pasture field. During 2018, the length of grass within the field has varied, being closely cropped to ground level at its shortest, and approximately 20cm in height at its longest. Within the Order Limits, the field did not appear to support any underground fissures, voids, buried

material or a well-established thatch layer. As such, the field within the Order Limits is considered to offer low potential for sheltering GCN, with this habitat being suitable only for foraging or dispersing GCN.

1.4.27 As such, the trapping effort would be reduced from the standard 60 nights to a minimum of 45 nights. Trapping would continue beyond the 45 minimum nights, until 5 clear nights are achieved in suitable conditions. This is considered to be a more proportionate trapping effort given the type of terrestrial habitats within the Order Limits at this location. This approach has been adopted previously in EPSMLs for water utility pipeline projects of a similar scale to this (e.g. Natural England licence 2018-35692-EPS-MIT).

1.4.28 Where the Order Limits cross a ditch approximately 50m from Pond 57a, vegetation would be removed (if necessary) under supervision of the ECoW. Vegetation would be strimmed to <10cm using hand tools, followed by a fingertip and destructive search of the banks during the GCN active period.

1.4.29 There are four receptor areas for the metapopulation, located approximately 230m southwest of Pond 55 (Receptor Area E), 190m southwest of Pond 55 (Receptor Area F), 40m southeast of Pond 55 (Receptor Area G) and surrounding Pond 57a (Receptor Area H) (Figure E2). A single refuge/log pile would be installed within Receptor Area G and a single refuge/log pile would be constructed within Receptor Area H (Figure E3.1). Any newts found within the exclusion fencing would be moved to the nearest receptor area.

Ponds 63 and 65a (Oak Park Golf Course)

1.4.30 Ponds 63 and 65a are located on the edge of Oak Park Golf Course and are both at least 220m from the Order Limits. The ponds are assumed likely to support a small population of GCN (in line with Natural England (2015), population estimate surveys have not been undertaken as the Order Limits are more than 100m from the pond and only temporary habitat loss or damage would occur).

1.4.31 Habitats within 250m of the pond which would be impacted comprise grassland (including golf course fairways), scrub, and woodland.

1.4.32 There are no other known GCN ponds within 500m of Ponds 63 and 65a.

1.4.33 The standard mitigation strategy for small GCN populations detailed above would be applied to this area i.e. a minimum of 30 nights trapping plus five clear nights would be undertaken, with the exception of the golf course fairways.

1.4.34 The fairways are considered to offer negligible suitability for sheltering GCN and so trapping or translocation is not proposed at these locations. Instead, the sections of fairways within the Order Limits and within 250m of GCN ponds would be enclosed by exclusion fencing and then fingertip searched. The exclusion fencing would prevent GCN from entering the construction works area and taking refuge in spoil piles or becoming trapped within any excavations left open overnight. This is considered an appropriate approach as the grassland within these areas is maintained as a very short sward and in the absence of any refuges (e.g. fissures,

mammal burrows), there would be very few locations for GCN to take shelter and so a thorough fingertip search should locate any GCN present.

1.4.35 Due to the availability and extent of suitable GCN habitat adjacent to the Order Limits, a specific receptor area is not proposed, and hibernacula or refuges/log piles would not be required. Any GCN found during trapping should be placed outside of the fence to the east in suitable (wooded) habitat away from the construction area and on the edge of the Order Limits. By placing animals to the east, they would be closer to ponds 63 and 65a.

Ponds 71, 71a and 73

1.4.36 Ponds 71 and 71a are located approximately 40m and 115m respectively to the south from the nearest point of the Order Limits. However, these ponds are separated from this part of the Order Limits by the A287 (Ewshot Hill) road which is considered a sufficient barrier to GCN movement to the north. Exclusion fencing, trapping and translocation to the north of the A287 within 250m of these ponds is not proposed.

1.4.37 To the south of the A287, Ponds 71 and 71a are also approximately 145m and 180m, respectively, to the east of the Order Limits. Pond 73 is approximately 240m to the west of the Order Limits and is within approximately 470m of pond 71a and 485m of Pond 71.

1.4.38 Habitats within 250m of the ponds which would potentially be impacted by installation comprise grassland, hedgerow and arable.

1.4.39 The area is assumed to support a small population of GCN based on the low population counts from Hampshire Biodiversity Information Centre (HBIC) records for Ponds 71 and 71a from 2014 (see GCN Factual Report for details) (in line with Natural England (2015), population estimate surveys have not been undertaken as the Order Limits are more than 100m from the pond and only temporary habitat loss of damage would occur). The mitigation strategy for small GCN populations would be applied within 250m of these ponds to the south of the A287 i.e. a minimum of 30 nights trapping plus five clear nights would be undertaken.

1.4.40 There are two receptor areas for this area (Receptor Area I and J), both located south of the A287 and within the Order Limits (Figure E2). A single hibernaculum would be constructed in Receptor Area I (Figure E3.1).

Ponds 127, 127a, 128 and 129a (Windlemere Golf Course)

1.4.41 Ponds 127, 127a, 128 and 129a all lie within the former Windlemere Golf Course, within 250m of each other, and are therefore considered to contribute to a metapopulation of GCN. The metapopulation is assumed to support a medium population of GCN based on the findings of population surveys.

1.4.42 Windlemere Golf Course is currently in the process of being converted into a Suitable Alternative Natural Greenspace (SANG) by Surrey Heath Borough Council, and so the terrestrial habitats may change prior to any construction commencing.

1.4.43 During 2018, habitats within 250m of the ponds that would be temporarily impacted comprise grassland (including former fairways which were still periodically mown) and woodland/scrub.

1.4.44 Based on the current 2018 survey results, a standard mitigation strategy for medium GCN populations detailed above would be applied within 250m of these ponds i.e. a minimum of 60 nights trapping plus five clear nights would be undertaken.

1.4.45 The A322 (Lightwater By-pass) is approximately 90m to the west of Pond 128 and is considered a major barrier to GCN dispersal. Therefore, areas of the preferred Order Limits within 250m of this metapopulation but west of the A322 are considered unlikely to support GCN and therefore mitigation is not proposed for these habitats.

1.4.46 Any GCN found within the exclusion fencing would be placed in the nearest designated GCN mitigation area, either immediately east of Pond 128 (Receptor Area K) or within land around Pond 129a (Receptor Area L) (Figure E2). A single hibernaculum would be constructed within each mitigation area (Figure E3.1).

1.4.47 It should be noted that although Pond 129a is located within the Order Limits, it would not be affected by construction activity. The habitat surrounding the pond has been enclosed by the Order Limits so that it can be used as a release site and so that a hibernaculum can be constructed. Pond 129a would be protected using an appropriate buffer. The buffer would be established using appropriate fencing and signage.

Pond 180

1.4.48 Pond 180 is located approximately 60m from the nearest point of the Order Limits. The size of the population of GCN is unconfirmed as landowner approval to access the pond was refused following the eDNA survey. There is one other pond 350m away from Pond 180 with confirmed GCN presence (Pond 189, which is not included in the GCN Factual Report or this licence application as it is beyond the 250m buffer). Pond 180 is likely to be acidic due to the underlying geology and proximity to Chobham Common heathland. As such, there is considered to be a low risk of Pond 180 supporting a medium/large breeding population.

1.4.49 Habitats within 250m of the pond that would be impacted comprise broadleaved woodland and heathland. However, within the 250m buffer, pipe installation would partially be achieved using trenchless construction techniques and so impacts to terrestrial habitats would be reduced because of this. As such, the proposed positioning of exclusion fencing is restricted to areas where above ground works would take place. The standard mitigation strategy for small GCN populations would be applied to this area (i.e. a minimum of 30 nights with 5 clear days), although there is scope to increase the minimum number of trapping days should a larger population be confirmed during pre-construction surveys (as necessary).

1.4.50 Due to the availability and extent of suitable GCN habitat around the trapping area, a specific receptor area is not proposed. Any GCN found during trapping would be placed outside but to the north of the fence in suitable habitat away from the construction area. A single refuge/log pile would be constructed within the Order Limits in an area designated for bat mitigation (Figure E3.1).

1.4.51 A small area of heathland (approximately 0.1ha) approximately 200m to the west of Pond 180 would be affected by pipeline installation. Potentially disturbing construction works within the Thames Basin Heaths SPA would be undertaken between 1 October and 31 January unless otherwise agreed with Natural England (G38). The heathland at this location also supports sand lizard (*Lacerta agilis*). A separate EPSML application will be submitted for this species, proposing habitat manipulation as the primary technique to displace sand lizards from the affected parts of the Order Limits. This would involve mowing or strimming heathland to ground level within the proposed construction area during the preceding spring/summer before works commence to displace sand lizard. In the intervening period between habitat manipulation and installation of the pipeline, regular vegetation management would be undertaken to maintain the habitat conditions as sub-optimal for sand lizard and GCN. As such, there would be a low risk of GCN taking refuge within the Order Limits, but a fingertip search would be undertaken prior to any works requiring ground disturbance.

1.4.52 Given the distance from Pond 180 and the small area of habitat that would be affected, this mitigation is considered sufficient for the protection of GCN, and installation of GCN exclusion fencing is not proposed in this 0.1ha area of heathland habitat.

Ponds 194a and 194c (Foxhills Golf Course)

1.4.53 Ponds 194a and 194c are located at Foxhills Golf Course. Ponds 194c is located within approximately 95m of the Order Limits. Pond 194a is located immediately adjacent to the Order Limits (the Order Limits originally encompassed this pond but were realigned once GCN presence was confirmed; as such, there would be no direct impact to the pond).

1.4.54 The ponds support small population of GCN which are considered likely to contribute to a metapopulation that make use of several ponds at Foxhills Golf Course. Terrestrial habitats within 250m of the ponds that would be temporarily impacted comprise short grassland (mainly fairways) and broadleaved wood/scrub.

1.4.55 The standard mitigation strategy for ponds with small GCN populations would be applied but with an adaptation that accounts for the predominantly sub-optimal habitats present on the golf course. The proposed mitigation for the golf course is to only initially fence, trap and translocate GCN from areas of optimal terrestrial habitat, such as woodland and scrub. These areas should then be trapped for a minimum of 30 nights, continuing for longer if necessary until five consecutive nights pass without GCN being found.

1.4.56 It is not proposed to trap the fairways as these areas comprise very short grassland with negligible refuge potential (Figure E4a). Instead, the sections of fairways within the Order Limits and within 250m of GCN ponds would be enclosed by exclusion fencing and then fingertip searched. It is considered that fingertip searching would be a highly effective method of finding GCN within these areas due to the absence of potential refuges. The exclusion fencing would prevent GCN from entering the construction works area and taking refuge in spoil piles or becoming trapped within any excavations left open overnight.

1.4.57 Due to the availability and extent of suitable GCN habitat around the trapping area, a specific receptor area is not proposed. Any GCN found during trapping would be placed to the north of the GCN fence in suitable retained habitat within the Order Limits. By placing animals to the north, they would be closer to ponds. A single refuge/log pile would be constructed within the Order Limits approximately 50m southeast of Pond 194a (Figure E3.1).

Pond 201

1.4.58 Pond 201 falls within the boundary of Foxhills Golf Course and is likely to contribute to the same wider metapopulation as Ponds 194a and 194c. However, as it is more than 800m from the nearest GCN pond on the golf course (Pond 187, outside of the survey area) and more than 1km from Pond 194a and 194c, regular interchange of GCN between these ponds is unlikely. As such, a combined population estimate for these ponds has not been calculated.

1.4.59 The pond supports a small population of GCN. Habitats within 250m of the pond that would be temporarily impacted are limited to existing paths, access tracks, and very short grassland (golf fairways and tees); these are considered sub-optimal for sheltering GCN but may be used by foraging or dispersing animals.

1.4.60 At their closest, the Order Limits are approximately 50m from Pond 201. At this location it is proposed to create a small (approximately 0.07ha) temporary compound within an area of short grassland used for golf. To prevent GCN from taking refuge under materials stored in the compound, it is proposed to install an exclusion fence around this area. In 2018, the habitat within this area had low potential for sheltering GCN as it comprised short amenity grassland with no fissures or voids. As such, it is not proposed to trap GCN from this area. Instead, the area would be fingertip searched.

1.4.61 The Order Limits within 250m of Pond 201 encompass various access tracks (hardstanding/compacted stone) that would be used for vehicle access only. It is not proposed to exclude GCN from these access tracks as they are existing features and the risk of killing/injuring GCN is considered to be extremely low. This is because the majority of works would be undertaken during the day when GCN are unlikely to be active above ground, and because high numbers of vehicle movements are not predicted for these works.

1.4.62 The proposed pipeline route and Order Limits associated with installation works are approximately 130m to the south of Pond 201. The pond is separated from this working area by two fairways comprising very short grass, considered to be of negligible suitability for sheltering GCN. The pipeline would be positioned within, or alongside, an existing path of compacted stone. Given the distance from the pond, the type of habitat that would be affected, and the negligible potential for GCN to be present in refuges, it is not proposed to use exclusion fencing at this location. Instead, the working area would be fingertip searched prior to construction commencing and any GCN removed.

1.4.63 At the end of installation works each day, any open excavations within 250m of Pond 201 would be covered with an appropriate material (e.g. pedestrian road plates weighed down with sand bags) to prevent GCN falling into the trench. If works are

undertaken between February and mid-October, the trench would also be inspected before commencement of works each day to further ensure that GCN have not become trapped. Spoil stored alongside the trench would be wrapped in a geotextile to prevent GCN from taking refuge underneath.

1.4.64 Ponds 192, 196 and 197 are all within 250m of Pond 201 and within 100m of the Order Limits associated within the pipeline route (Ponds 196 and 197 are within 50m). GCN absence was recorded from these ponds in 2018. However, in the event that pre-construction surveys confirm GCN presence within these ponds, the use of exclusion fencing would be proposed for installation works within 250m. Given the type of habitat within the Order Limits at this location, fingertip searching would still likely be the preferred technique for finding and removing GCN from the works area.

1.4.65 A receptor area for Pond 201 (Receptor Area M) is located approximately 35m to the northwest of the pond, around Pond 203 (Figure E2). A single hibernaculum would be constructed within the receptor area (Figure E3.1).

Ponds 223 and 223a

1.4.66 Pond 223 falls within the Order Limits but in an area designated for GCN and bat mitigation and so there would be no direct impacts to the pond. Impacts to the immediate surrounding woodland are also not predicted as they fall outside the Limits of Deviation (the area within which the pipeline would be installed) and would be subject to good practice measures outlined in Section 1.2. However, Ponds 223 and 223a are still both within 50m of the proposed construction activity.

1.4.67 Pond 223a was not subject to presence/absence surveys in 2018 as it was discovered after the end of the survey season. However, GCN presence was confirmed in Pond 223 (despite it supporting high numbers of stickleback) and so for the purpose of this draft mitigation strategy, it is assumed that GCN are also present in Pond 223a as the ponds are less than 100m apart and connected by optimal GCN habitat.

1.4.68 Habitats within 250m of the pond that would be temporarily impacted comprise an arable field which is considered sub-optimal for GCN; and hedgerows, broadleaved woodland and grassland which are considered optimal for GCN. These habitats are all to the south of an intake channel (similar to a canal) linking the River Thames and Queen Mary Reservoir. It is proposed to use trenchless construction techniques to cross the intake channel and so impacts to the aquatic habitat would not arise (although the watercourse is sub-optimal for GCN as it supports fish and is flowing). To the north of the intake channel, works would largely be restricted to an existing concrete access track and the highway and so impacts to potential GCN habitat would be negligible.

1.4.69 For the purpose of this draft licence application, it has been assumed that Pond 223a supports a small population of GCN. As such, for areas to the south of the intake channel, the standard mitigation strategy for small GCN populations detailed above would be applied within 250m of Ponds 223 and 223a, i.e. a minimum of 30 nights trapping plus five clear nights would be undertaken. However, as construction activity would affect ‘core habitat’ within 50m of the ponds and no existing population estimates exist, pre-construction surveys would be required to obtain a population

estimate for these ponds. If necessary, the trapping effort would be increased accordingly to a minimum of 60 or 90 nights if a medium or large population is recorded, respectively.

1.4.70 The receptor areas for Pond 223 and 223a (Receptor Areas N and O) are located either side of Pond 223 (Figure E2). A single hibernaculum would be constructed within Receptor Area N and a refuge/log pile would be constructed within the Order Limits approximately 40m southeast of Pond 223a (Figure E3.1).

References

English Nature (2001). Great crested newt mitigation guidelines. Peterborough.

English Nature (2004). Research Report No. 576. An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus*.

Natural England (2015). Template for Methods Statement to support application for licence under Regulation 53(2) of The Conservation of Habitats and Species Regulations (as amended) in respect of great crested newts *Triturus cristatus*. Form WML-A14-2 (Version December 2015).

Annex C: Photographs

Photos

Photo 7.15.1. Semi-improved grassland between Pond 11 and arable land that the Order Limits pass through (Bishops Waltham, 30/04/18, standardlens).

Photos

Photo 7.15.2. Pasture field through which the Order Limits run near Pond 39 (Alton, 18/07/18, standard lens).

Photo 7.15.3. Arable field margin near Pond 41 (Alton, 14/06/18, standard lens).

Photo 7.15.4. Arable field through which the Order Limits pass near Pond 50 (Upper Froyle, 18/04/18, standard lens).

Photos

Photo 7.15.5. Pasture field between Ponds 55, 56, 57 and 57a, through which the Order Limits pass (Upper Froyle, 29/05/18, standard lens).

Photo 7.15.6. Pond 57a and terrestrial habitat in Receptor Area H in Upper Froyle (Upper Froyle, 01/05/18, standard lens).

Photos

Photo 7.15.7. Pond 65a and surrounding woodland that exists between Pond 63, Pond 65a and the Order Limits (Oak Park Golf Course, 08/05/18, standard lens).

Photo 7.15.8. Pond 73 and surrounding semi-improved grassland to the west of the Order Limits.

Photos

Photo 7.15.9. Terrestrial habitat at Receptor Area L on Windlemere Golf Course (Windlemere Golf Course, 18/07/18, standard lens).

Photos

Photo 7.15.10. Terrestrial habitat at Windlemere Golf Course (Windlemere Golf Course, 18/07/18, standard lens).

Photo 7.15.11. Pond 128 and terrestrial habitat adjacent to GCN Receptor Area K at Windlemere Golf Course (Windlemere Golf Course, 31/05/18, standard lens).

Photos

Photo 7.15.12. Pond 128 and terrestrial habitat adjacent to GCN Receptor Area K at Windlemere Golf Course (Windlemere Golf Course, 24/07/18, standard lens).

Photos

Photo 7.15.13. Woodland within the Order Limits near Pond 180 (Chobham Common, 18/04/18, standard lens).

Photo 7.15.14. Terrestrial habitat outside the Order Limits at Foxhills Golf Course (Foxhills Golf Course, 13/03/18, standard lens).

Photos

Photo 7.15.15. Terrestrial habitat outside the Order Limits at Foxhills Golf Course (Foxhills Golf Course, 16/04/18, standard lens).

Photo 7.15.16. Terrestrial habitat just outside Order Limits at Foxhills Golf Course (Foxhills Golf Course, 16/04/18, standard lens).

Photos

Photo 7.15.17. Terrestrial habitat within the eastern end of the Order Limits in Foxhills Golf Course (Foxhills Golf Course, 16/04/18, standard lens).

Photo 7.15.18. Terrestrial habitat at northern boundary of Foxhills Golf Course near GCN Receptor Area M (Foxhills Golf Course, 16/04/18, standard lens).

Photos

Photo 7.15.19. Pond 194a and terrestrial habitat at Foxhills Golf Course on the outside edge of the Order Limits (Foxhills Golf Course, 13/03/18, standard lens).

Photo 7.15.20. Pond 201 and terrestrial habitat at Foxhills Golf Course (Foxhills Golf Course,13/03/18, standard lens).

Photos

Photo 7.15.21. Pond 223a and surrounding habitat immediately outside the Order Limits (Chertsey, 04/10/18, standard lens).

WML-A14-E6a&E6b – WORK SCHEDULE FOR GREAT CRESTED NEWT

ANNEXED LICENCES

Site name and address (as stated on the application form or licence granted): Southampton to London Pipeline Project

Please ensure that the work schedules E6a and E6b are S.M.A.R.T and appropriate timescales are provided for each activity, to fit with order of events. Complete these schedules to show timings for all major categories of work (mitigation and compensation measures), and to show the main construction period. The most common activities are listed here, and you can add up to 6 more if needed. Leave blank if not applicable. Enter timing by stating **start and end dates, to nearest month and year** (see first line for example). Enter comments if you need to clarify timings. For very complex schemes (e.g. high impact or phased development schemes) if additional lines are needed please do add in. This work schedule will form part of any annexed licence.

PLEASE INCLUDE DATE OF SUBMISSION (e.g. 1 January 2016). This will be referenced in the licence →		**TBC but likely to be 2020**
E6a) Pre, mid and post-development (other than monitoring, management and maintenance)		
Activity	**Timing**	**Comments**
Example: Receptor site pond creation	***Nov-15 to Dec-15***	***Also plant pond up with native species in January 2016***
Receptor site pond creation	N/A	
Receptor site pond enhancement or restoration	N/A	
Receptor site terrestrial hab works - general e.g. reseeding, hedge planting	January 2020 to December 2022	
Receptor site terrestrial hab works - features e.g. hibernacula, refuges	January 2020 to December 2022	
Construction of permanent fences/walls	N/A	
Construction of underpass/tunnel/culvert (and installation of 'guide' fencing)	N/A	
Newt fence installation (to include drift or ring fencing if applicable – specify which)	March 2020 to October 2022	Exclusion fencing would not be installed during conditions suitable for GCN hibernation (typically mid-Oct to March).
Newt capture (pitfall trapping etc - outside hibernation/dormancy periods only)	March 2020 to October 2022	Trapping would occur during appropriate weather conditions

		only.
Pond draining and pond destruction (please indicate when each will occur)	N/A	
Hand searches	January 2020 to March 2023	
Destructive searches (following completion of all other capture efforts)	March 2020 to October 2022	
Construction period (start and end dates)	January 2020 to early 2023	Construction works would not commence at locations subject to licencing until the appropriate measures to avoid the killing or injuring of GCN had been completed at that location.
Site checks & maintenance during construction	January 2020 to early 2023	Sites would be checked at a minimum weekly. During the trapping and active construction periods in any area site checks would be undertaken daily by the ECoW or a suitably licenced ecologist.
Drift fence removal (not to be undertaken during hibernation/dormancy periods)	April 2020 to October 2022	Fence removal would commence after installation has been completed in the area around each pond or metapopulation. In the instance that construction activity in one of these areas is completed during GCN hibernation period, fencing will be left in situ and removed during the following GCN active period.
Newt fence removal (not to be undertaken during hibernation/dormancy periods)	May 2020 to March 2023	Fence removal would commence after installation has been completed in the area around each pond or metapopulation. In the instance that construction activity in one of these areas is completed during GCN hibernation period, fencing would be left in situ and removed during the following GCN active period.

Ring fence removal (not to be undertaken during the hibernation/dormancy periods)	N/A	
Habitat reinstatement (for temporary impact schemes only)	May 2020 to March 2023	Planting would be during the first available planting season following completion of construction activity at each location.
Post construction mitigation/compensation on dev't site or other (provide details)	N/A	

E6b) Post-development works - type a "Y" where each activity will occur for a given year and leave blank for no activity.

Year:	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Population monitoring												
Habitat management												
Site maintenance												
Year:	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**
Population monitoring												
Habitat management												
Site maintenance												

The Conservation of Habitats and Species Regulations 2010 (as amended)

European Protected Species Mitigation Licensing - Reasoned Statement for the purpose of Imperative Reasons of Overriding Public Interest

The information provided in this form will be used by Natural England to determine whether the proposed activity affecting the European Protected Species meets the requirements of Regulation 53(2)(e) and 53(9)(a) within The Conservation of Habitats and Species Regulations 2010 (as amended). These are known as the '**purpose**' and '**no satisfactory alternatives**' tests.

This form, for the purpose of Imperative Reasons of Overriding Public Interest, only needs to be completed if your application proposal is **not** covered by one the scenarios and categories listed on GOV.UK.

Important Note: Detailed information on the proposal is required to demonstrate that it will meet the tests set out under the Regulations. If you encounter difficulty answering the questions or providing the evidence required, it may suggest that your proposal is insufficiently advanced to satisfy the licensing tests. In that case, you should consider delaying your application until this information is available.

Please read the following and complete:

- ***Section A: Purpose test***
  "*Imperative reasons of overriding public interest" (IROPI) including those of a social or economic nature and beneficial consequences of primary importance for the environment*"

- ***Section B: No Satisfactory Alternative test***

The tests are applied proportionately, so the strength of the evidence required to meet each will need to be sufficient to justify the impact upon the protected species (see guidance for further information). Where the supporting evidence upon which your reasoning is based consists of lengthy documents, please do not submit these in their entity as this will delay your application if we need to go through them to find the relevant extracts. You need to provide clear, concise information for us to be able to meet the licensing tests. Please note that your application is likely to be rejected in cases where the supporting evidence has not been clearly referenced.

Section A: Purpose Test

A1 Please select against all of the following below which apply to your proposal. You are asked to indicate against those that apply whether the projected benefits are primary or secondary or not applicable to your proposal.

Please note: A primary benefit is considered to be the key social, economic or environmental benefit brought about from the proposal. A secondary benefit is considered to be an additional benefit, but not the main reason for the proposal. There may be more than one secondary benefit but supporting evidence should be provided in Section A2 where applicable, for each benefit selected.

Does your proposal:	
Provide housing in an area where shortfalls have been clearly identified?	☐ Primary benefit ☐ Secondary benefit ☒ N/A
Create, repair or enhance essential infrastructure at a local, regional or national level?	☒ Primary benefit ☐ Secondary benefit ☐ N/A
Provide care facilities or another essential public service in an area where it is known to be required?	☐ Primary benefit ☐ Secondary benefit ☒ N/A
Address another clearly identified social, religious or cultural need?	☐ Primary benefit ☐ Secondary benefit ☒ N/A
Create long term employment opportunities in an area of high unemployment?	☐ Primary benefit ☐ Secondary benefit ☒ N/A
Deliver other economic benefits or otherwise contribute in some way to the wider economy?	☒ Primary benefit ☐ Secondary benefit ☐ N/A
Contribute to addressing problems associated with climate change or promote sustainable energy use	☐ Primary benefit ☐ Secondary benefit ☒ N/A
Conserve a place of environmental interest?	☐ Primary benefit ☐ Secondary benefit ☒ N/A
Provide alternative sources of energy?	☐ Primary benefit ☐ Secondary benefit ☒ N/A
Deliver other benefits from those specified above?	☐ Primary benefit ☐ Secondary benefit ☒ N/A
If ‘Other benefits’ is selected, please provide details here:	

A2 In relation to the primary and secondary benefits identified in A1, to help demonstrate the need for the proposal, please provide the evidence and details for all the benefits ticked above.

Important note: Reference the supporting evidence upon which your reasoning is based and include the relevant extracts (please do not send in documents with no indication where the evidence being referred to is). This evidence must link back to the tick boxes selected above. Failure to do so will lead to us having to come back to you for further information.

Supporting evidence can usefully include some or more of the following: Local planning polices and plans, planning permission, policy documents, specialist reports, feasibility studies, extracts from relevant legislation, photographs, media articles or related correspondence. Where applicable, please ensure that planning officer or committee reports and design and access statements are included as supporting evidence.

A2 (a) (i) Please provide full details of the proposal in the box below.

The construction of a cross country pipeline by Esso Petroleum Company, Limited. This is to replace an existing line that is approaching the end of its useful life. The line will run from Boorley Green in Hampshire to the West London Terminal in the London Borough of Hounslow. The Southampton to London Pipeline ("SLP") is a Nationally Significant Development Project ("NSIP") for which Development Consent is required under Sections 14(1)(g), 21(1) and 21(2)(a) of the Planning Act 2008 (as amended).

The replacement pipeline would be buried underground for its entire 97km length. The assumed minimum depth from the top of the pipe to the ground surface would be 1.2m in open cut sections, and deeper for trenchless crossings. This is reflected in our engineering designs. A slightly shallower depth may conceivably be necessary in exceptional circumstances but all indications are that this will not be required. The pipeline will also be buried deeper, typically 1.5m from top of pipe to ground surface, in roads and streets to account for other existing infrastructure such as utility pipes, cables and sewers. It will have a notional internal diameter of 30cm.

A full description of the SLP is set out in Environmental Statement (Chapter 3 - Scheme Description) submitted as part of the application for development consent.

A2 (a) (ii) Explain why your proposal is considered to be imperative (essential).
For example, if your development proposal is for a housing development reference the local housing need as set out in the area plan and explain how your proposal contributes to meeting this need or how the requirement for the proposed new public service, care facility or infrastructure project was identified.

The need for the project is set out in full within the Planning Statement (Chapter 2 - Need) submitted as part of the application for development consent.

Government policy for energy NSIPs, including the SLP project, is set out in National Policy Statement EN-1:

Decision makers should, according to NPS EN-1 para 3.1.3 "assess all applications for development consent for the types of infrastructure covered by the energy NPSs on the basis that the Government has demonstrated that there is a need for those types of infrastructure …".

NPS EN-1 para 3.1.4 goes on to state that decision makers ".. should give substantial weight to the contribution which projects would make towards satisfying this need when considering applications for development consent under the Planning Act 2008".

NPS EN-1 para 4.1.2 goes further to state that “Given the level and urgency of need for infrastructure of the types covered by the energy NPSs set out in Part 3 of this NPS, the (decision maker) should start with a presumption in favour of granting consent to applications for energy NSIPs”.

Please provide details of supporting evidence.
Provide clear referencing such as page numbers and paragraphs of specific documents so these can easily be cross-referenced. To help with our assessment, please only provide the relevant extracts that help to demonstrate the reasoning given above rather than including lengthy documents in their entirety. Please do not provide website links to separate documentation, unless you identify where exactly in the linked document or web page the evidence referred to is located (our preference is for you to extract the evidence and copy it below, referencing where it has come from).

A full description of the SLP project is set out in the Environmental Statement (Chapter 3 - Scheme Description) submitted as part of the DCO application.

The need for the project is set out in full within the Planning Statement (Chapter 2 - Need) submitted as part of the application for development consent.

Please confirm that relevant extract/s from supporting evidence to verify the above have been included Yes ☐ No ☐

A2 (b) Explain why the benefits of your proposal override any harm to the protected species.
The benefit/s arising from the proposal must outweigh the harm (or risk of harm) to the protected species. Generally this means long-term public benefits rather than short term benefits (ie creation of permanent employment opportunities rather than temporary employment or creation of infrastructure that helps to provide long-term solutions to clearly identified national problems associated with energy demands).

The Environmental Statement (Chapter 7 - Biodiversity) submitted as part of the application for development consent, together with the Planning Statement, provide an assessment of the potential impacts of the proposed development on protected species and demonstrate that the benefits of the proposed development outweigh any harm or risk of harm to protected species.

Please provide details of supporting evidence as explained in A2 above.

See the Environmental Statement (Chapter 7 - Biodiversity)

See the Planning Statement

Please confirm that relevant extract/s from supporting evidence to verify the above have been included Yes ☐ No ☐

A3 There must be a <u>Public Interest</u>. You need to demonstrate that your proposal will deliver a public benefit rather than a solely private interest.
Note: Planning consent (or its equivalent) is considered evidence of public interest so please ensure to reference here but only include details in the application form.

A3 (a) Indicate the scale of these benefits: Local ☐ Regional ☒ National ☒

A3 (b) Where possible, explain the scale of the benefits that will be achieved from your proposal, in quantifiable terms, as indicated above.
For example, this could be the number of new houses provided in proportion to the identified need at a local and regional scale; the number of long term employment opportunities that will be created at a local level; the level of reduced Co2 emissions at an 'X' level.

The development will deliver essential national infrastructure for which the Government has identified a need as set out within the Planning Statement (Chapter 2 - Need) submitted as part of the application for development consent.

A3 (c) Please provide details of supporting evidence to verify the above as explained in A2 above

See Planning Statement (Chapter 2 - Need)

Please confirm that relevant extract/s from supporting evidence to verify the above have been included Yes ☐ No ☐

SECTION B: No Satisfactory Alternative Test

Please explain why there is no satisfactory alternative to your proposal.

A "satisfactory alternative" is a different way of achieving the objective of the activity (ie meeting your need) which has a *less negative impact on the protected species*. If there is a less damaging satisfactory alternative available that is feasible, then legally, a licence cannot be granted.

You are expected to have considered all reasonable alternative solutions when developing your proposal(s) and to have suitable grounds (and evidence) for discounting each against the proposed solution to meet the need. There are technical and non-technical elements to consider for this test and this part of your application will consider the non-technical elements – focussing on delivering the need. Alternatives can include different locations, routes, designs and timings. The Method Statement focusses on the technical elements of this test – ie reducing the impact on the species (see 'Important Advice' below).

Important Advice: Please note that alternative mitigation (including timing of licensable works) and compensation solutions are considered as part of the Favourable Conservation Status test and should be included in the relevant species Method Statement submitted with your application and not here.

B1 (a) Firstly, please explain why the current situation (ie the status quo) isn't acceptable or feasible.

The Planning Statement (Chapter 2 - Need) identifies the need for the proposed pipeline and exaplains why the status quo is not feasible.

B1 (b) Details of supporting evidence.

Provide clear referencing such as page numbers and paragraphs of specific documents so these can easily be cross-referenced. To help with our assessment, please only provide the relevant extracts that help to demonstrate the reasoning given above rather than including lengthy documents in their entirety. Please do not provide website links to separate documentation, unless you identify where exactly in the linked document or web page the evidence referred to is located (our preference is for you to extract the evidence and copy it below, referencing where it has come from).

See Planning Statement (Chapter 2 - Need)

B1 (c) Confirm relevant extract(s) from supporting evidence is included to verify the above. Yes ☐ No ☐

Please use the tables below to describe each alternative considered.

Please use a separate line for each and tick the relevant reason(s) why it was dismissed. It is important to explain why each alternative was judged to be unsatisfactory or unfeasible to meet the need for the proposal put forward in your application and to provide concise supporting evidence as appropriate (*Please insert additional rows as required).*

B2 (a) Set out <u>what</u> alternative locations and/or routes were considered and indicate how and why they were not acceptable.	Not applicable to situation	Won't deliver need	Not feasible	Greater impact on species
Location or route 1:	☐	☐	☐	☐
If you have ticked '*Not applicable to situation',* please explain why here, otherwise please complete this table as appropriate:				
Describe the location or route considered	See comments below			
Clearly set out how and why the alternative location/route was discounted.	See comments below			
Location or route 2	☐	☐	☐	☐
Describe the location or route considered	See comments below			
Clearly set out how and why the alternative location/route was discounted.	See comments below			
Location or route 3:	☐	☐	☐	☐
Describe the location or route considered	See comments below			
Clearly set out how and why the alternative location/route was discounted.	See comments below			
Location or route 4:	☐	☐	☐	☐
Describe the location or route considered	See comments below			

Clearly set out how and why the alternative location/route was discounted.	See comments below

Please note: you can add more rows to the table: Right click in the bottom row > Choose Insert > Insert rows below.

B2 (b) Details of supporting evidence.

Provide clear referencing such as page numbers and paragraphs of specific documents so these can easily be cross-referenced. To help with our assessment, please only provide the relevant extracts that help to demonstrate the reasoning given above rather than including lengthy documents in their entirety. Please do not provide website links to separate documentation, unless you identify where exactly in the linked document or web page the evidence referred to is located (our preference is for you to extract the evidence and copy it below, referencing where it has come from).

The Environmental Statement (Chapter 4 - Design Evolution) submitted as part of the application for development consent provides an explanation and justification for the proposed routeing, design and construction techniques proposed as part of the SLP project.

B2 (c) Confirm relevant extract(s) from supporting evidence is included to verify the above. Yes ☐ No ☐

B3 (a) Set out <u>which</u> alternative development scales or designs were considered.	Not applicable to situation	Won't deliver need	Not feasible	Greater impact on species
Important note: If new infrastructure is to be created explain why the need cannot be met by expanding existing infrastructure.				
Development scale or Design 1:	☐	☐	☐	☐
If you have ticked '*Not applicable to situation',* please explain why here otherwise please complete this table as appropriate:				
Describe the development scale or design considered.	See comments below			
Clearly explain how and why the different development scale or design considered was discounted.	See comments below			
Development scale or Design 2:	☐	☐	☐	☐
Describe the development scale or design considered.	See comments below			
Clearly explain how and why the different development scale or design considered was discounted.	See comments below			
Development scale or Design 3:	☐	☐	☐	☐
Describe the development scale or design considered.	See comments below			
Clearly explain how and why the different development scale or design considered was discounted.	See comments below			
Development scale or Design 4:	☐	☐	☐	☐
Describe the development scale or design considered.	See comments below			

Clearly explain how and why the different development scale or design considered was discounted.	See comments below

Please note: you can add more rows to the table: Right click in the bottom row > Choose Insert > Insert rows below.

B3 (b) Details of supporting evidence.

Provide clear referencing such as page numbers and paragraphs of specific documents so these can easily be cross-referenced. To help with our assessment, please only provide the relevant extracts that help to demonstrate the reasoning given above rather than including lengthy documents in their entirety. Please do not provide website links to separate documentation, unless you identify where exactly in the linked document or web page the evidence referred to is located (our preference is for you to extract the evidence and copy it below, referencing where it has come from).

The Environmental Statement (Chapter 4 - Design Evolution) submitted as part of the application for development consent provides an explanation and justification for the proposed routeing, design and construction techniques proposed as part of the SLP project.

B3 (c) Confirm relevant extract(s) from supporting evidence is included to verify the above. Yes ☐ No ☐

B4 (a) Other alternative activities, processes or construction methods considered to reduce the impact upon the species	Not applicable to situation	Won't deliver need	Not feasible	Greater impact on species
Important note – detailed timings of licensable works, alternative mitigation and compensation which will reduce the degree of harm are to be considered within the Method Statement and not here.				
Alternative activity, process or method 1:	☐	☐	☐	☐
If you have ticked '*Not applicable to situation',* please explain why here otherwise please complete this table as appropriate:				
Describe the alternative activity, process or method considered.	See comments below			
Clearly explain why this alternative was discounted.	See comments below			
Alternative activity, process or method 2:	☐	☐	☐	☐
Describe the alternative activity, process or method considered.	See comments below			
Clearly explain why this alternative was discounted.	See comments below			
Alternative activity, process or method 3:	☐	☐	☐	☐
Describe the alternative activity, process or method considered.	See comments below			
Clearly explain why this alternative discounted.	See comments below			
Alternative activity, process or methods 4:	☐	☐	☐	☐
Describe the alternative activity, process or method considered.	See comments below			

Clearly explain why this alternative was discounted.	See comments below

**Please note: you can add more rows to the table: Right click in the bottom row > Choose Insert > Insert rows below.*

B4 (b) Details of supporting evidence.

Provide clear referencing such as page numbers and paragraphs of specific documents so these can easily be cross-referenced. To help with our assessment, please only provide the relevant extracts that help to demonstrate the reasoning given above rather than including lengthy documents in their entirety. Please do not provide website links to separate documentation, unless you identify where exactly in the linked document or web page the evidence referred to is located (our preference is for you to extract the evidence and copy it below, referencing where it has come from).

The Environmental Statement (Chapter 4 - Design Evolution) submitted as part of the application for development consent provides an explanation and justification for the proposed routeing, design and construction techniques proposed as part of the SLP project.

B4 (c) Confirm relevant extract(s) from supporting evidence is included to verify the above. Yes ☐ No ☐

N

ESSO WEST LONDON STORAGE FACILITY

Section H

Section F

Section G

Section E

Section D

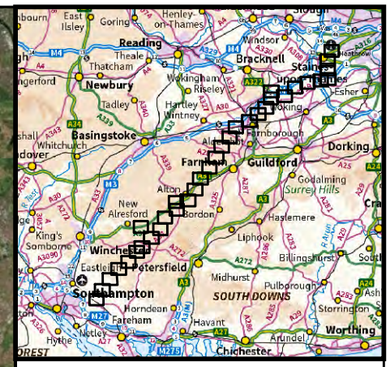
Section C

ALTON PUMPING STATION

Section B

Section A

BOORLEY GREEN



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Surrey Amphibian and Reptile Group GCN record
- Hampshire Biodiversity Information Centre GCN record

0 2.5 5 10 Kilometres

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprv'd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author
JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client
Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project
Esso Southampton to London Pipeline Project

Drawing title
ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
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Jacobs No.	B2325300	
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Key Plan	Rev 0

N

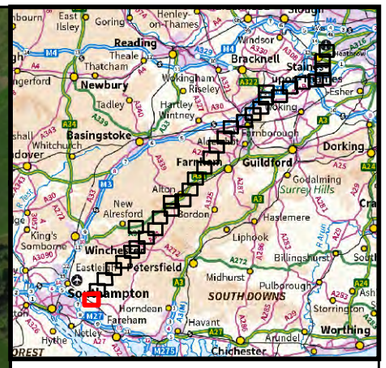
BOORLEY GREEN

BOTLEY

1

Section A

0 0.1 0.2 0.4 Kilometres



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section A

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU. UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

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APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
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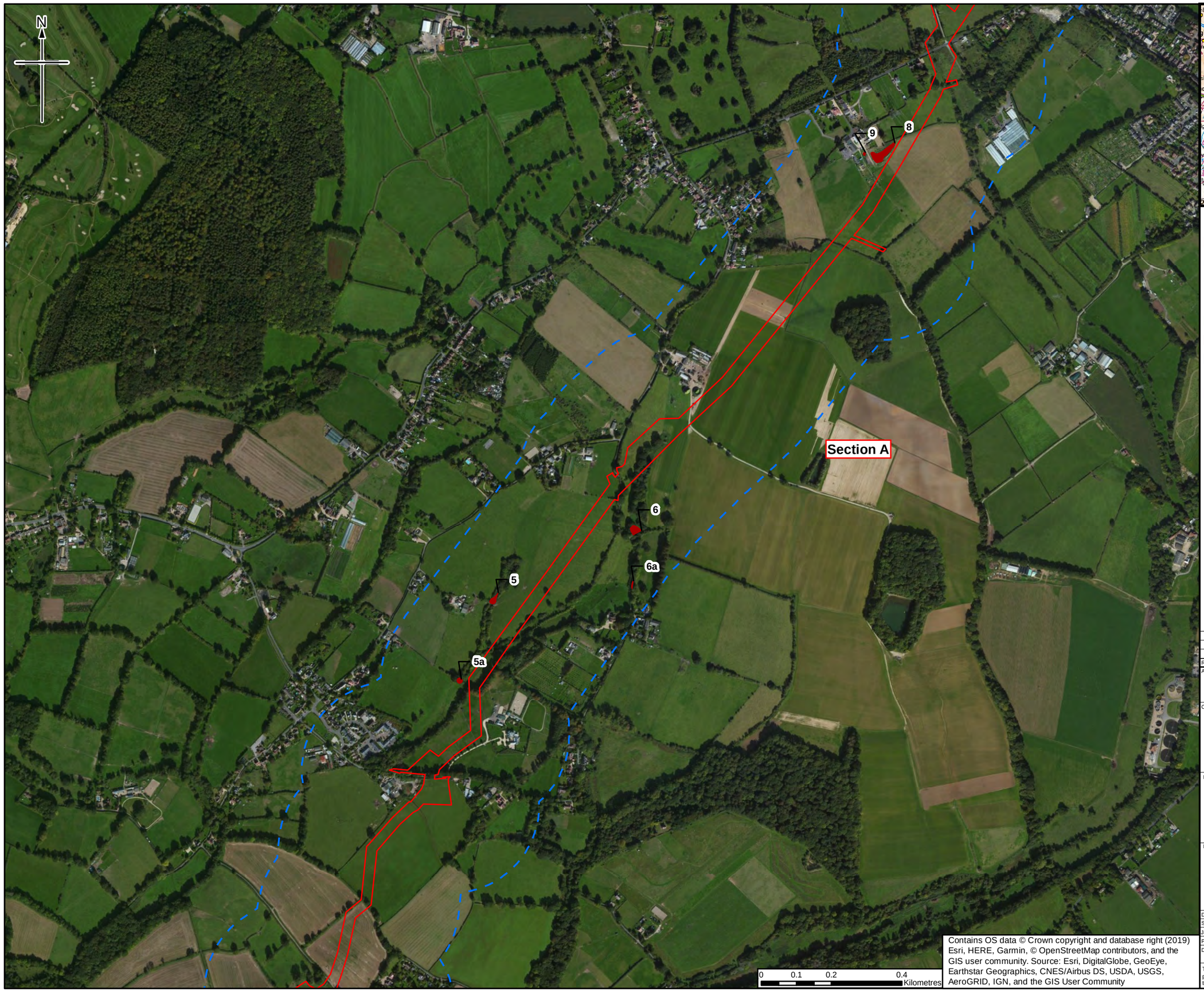
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Sheet 1 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section A

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

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Drawing Status	For Issue	
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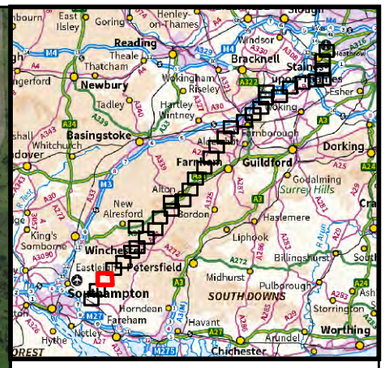
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Sheet 2 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section A

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Author
JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
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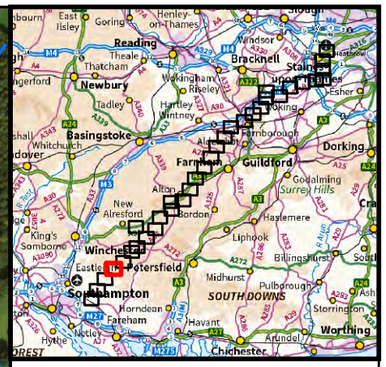
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Sheet 3 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section A

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
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Client

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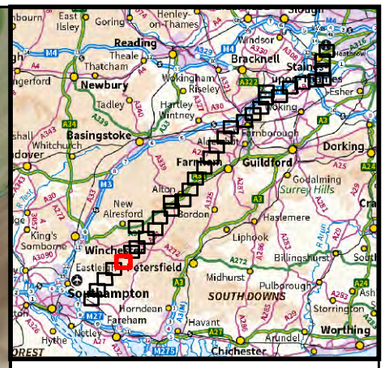
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Sheet 4 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section A

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
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Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue
Scale	1:10,000 @ A3 — DO NOT SCALE
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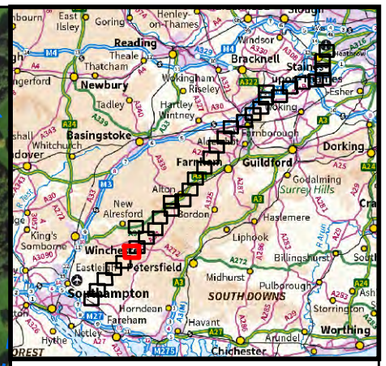
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090
Drawing number	Figure C3.2a Sheet 5 of 34
Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section A

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprvd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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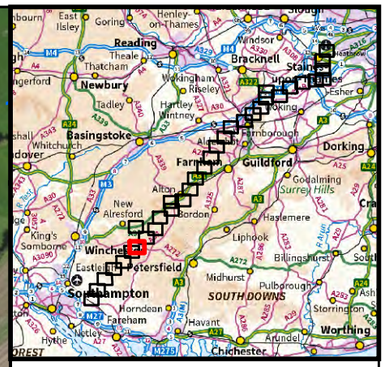
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090		
Drawing number	Figure C3.2a Sheet 6 of 34	Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays parts of Section A and Section B

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprv'd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

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Jacobs No.	B2325300		
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090		

Drawing number: Figure C3.2a Sheet 7 of 34 — Rev: 0

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Section B

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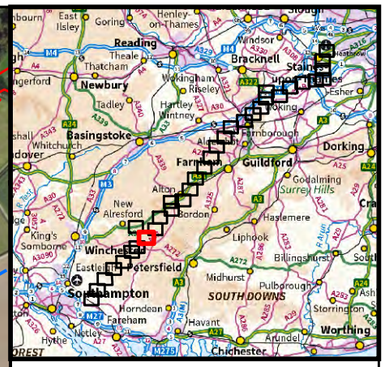

Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section B

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author
JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client
Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project
Esso Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
Scale	1:10,000 @ A3	DO NOT SCALE
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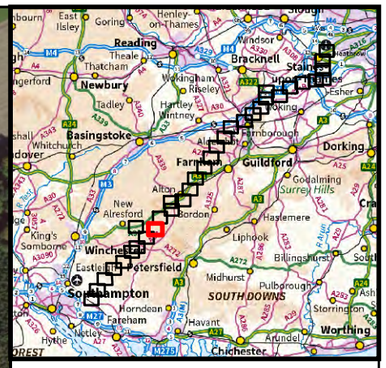
Drawing number	Figure C3.2a Sheet 8 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section B

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	**For Issue**	
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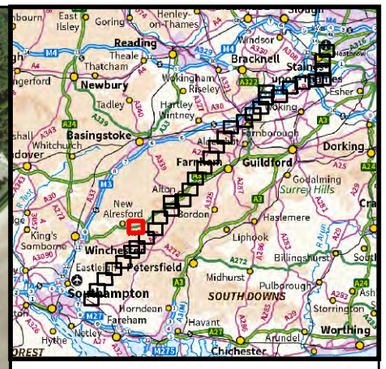
ProjectWise No.	**B2325300-JAC-000-ENV-DRG-001090**	

Drawing number: Figure C3.2a Sheet 9 of 34 — Rev: 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section B

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

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ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

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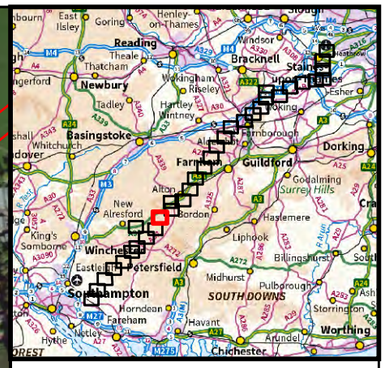
Drawing number: Figure C3.2a Sheet 10 of 34 — Rev: 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section B

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

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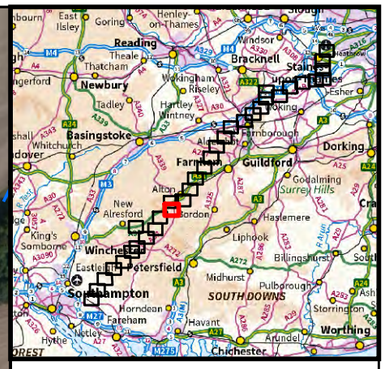
Drawing number	Figure C3.2a Sheet 11 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section B

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax:+44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
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Drawing Status	For Issue	
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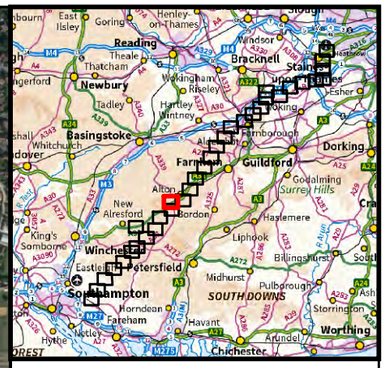
Drawing number	Figure C3.2a Sheet 12 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section B

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Revd	Apprvd
0	7/03/2019	For Issue	LM	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU. UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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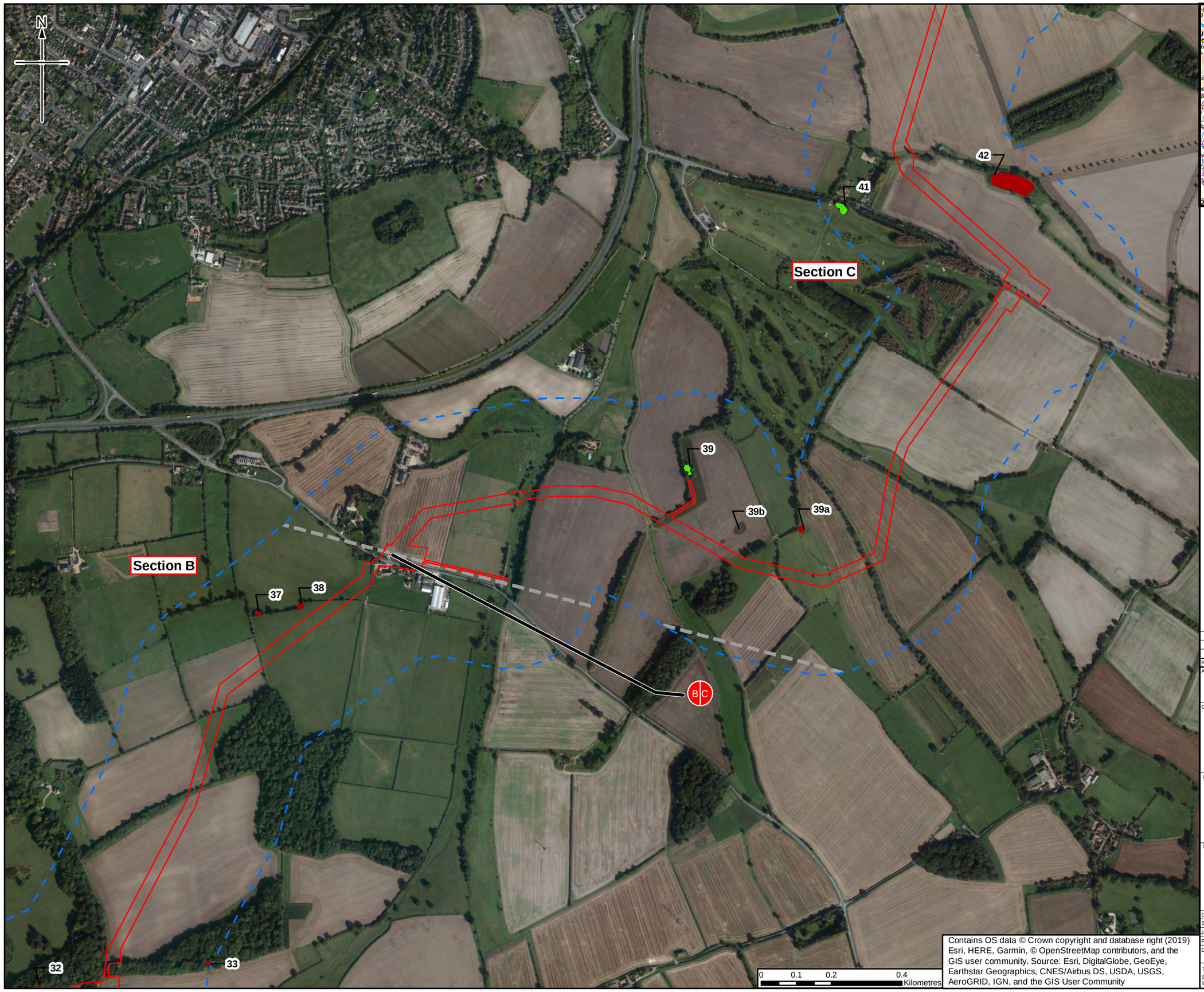
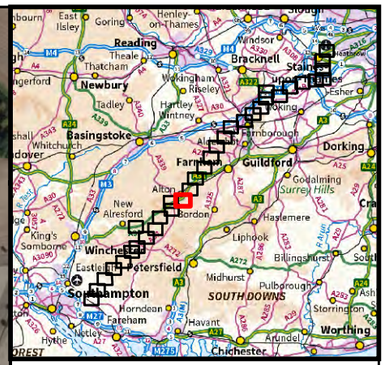
Drawing number: Figure C3.2a Sheet 13 of 34 — Rev: 0





Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays parts of Section B and Section C

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprv'd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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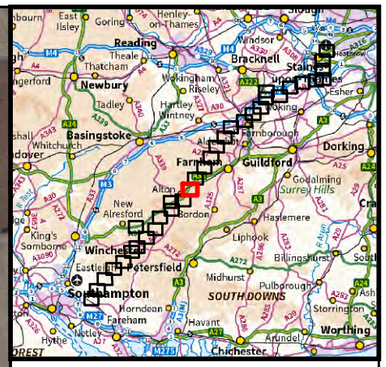
Drawing number	Figure C3.2a Sheet 14 of 34	Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section C

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprvd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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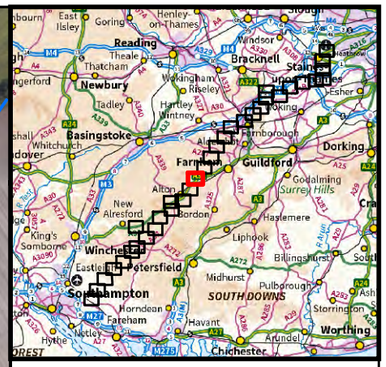
Drawing number	Figure C3.2a Sheet 15 of 34	Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section C

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprvd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS

1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

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Drawing title

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
Scale	1:10,000 @ A3	DO NOT SCALE
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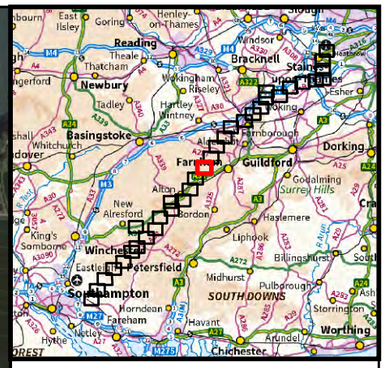
Drawing number	Figure C3.2a Sheet 16 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section C

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax:+44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

Drawing title

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Drawing Status	For Issue	
Scale	1:10,000 @ A3	DO NOT SCALE
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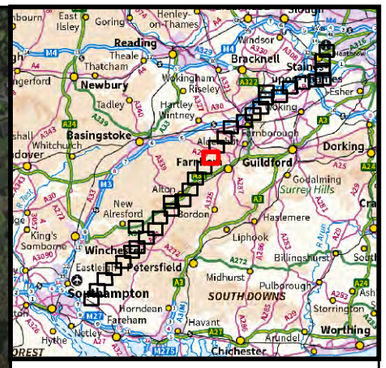
Drawing number	Figure C3.2a Sheet 17 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays parts of Section C and Section D

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

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Drawing Status	For Issue		
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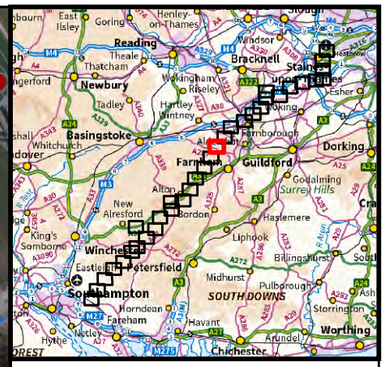
Drawing number	Figure C3.2a Sheet 18 of 34	Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section D

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
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APFP Reg. (2009) 5(2)(l)

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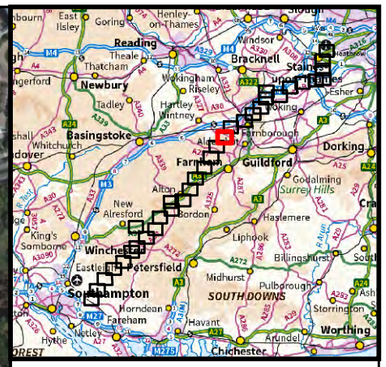
Drawing number	Figure C3.2a Sheet 19 of 34	Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section D

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprv'd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

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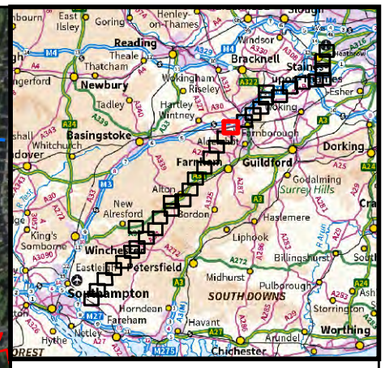
Drawing number	Figure C3.2a Sheet 20 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays parts of Section D and Section E

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprvd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
Scale	1:10,000 @ A3	DO NOT SCALE
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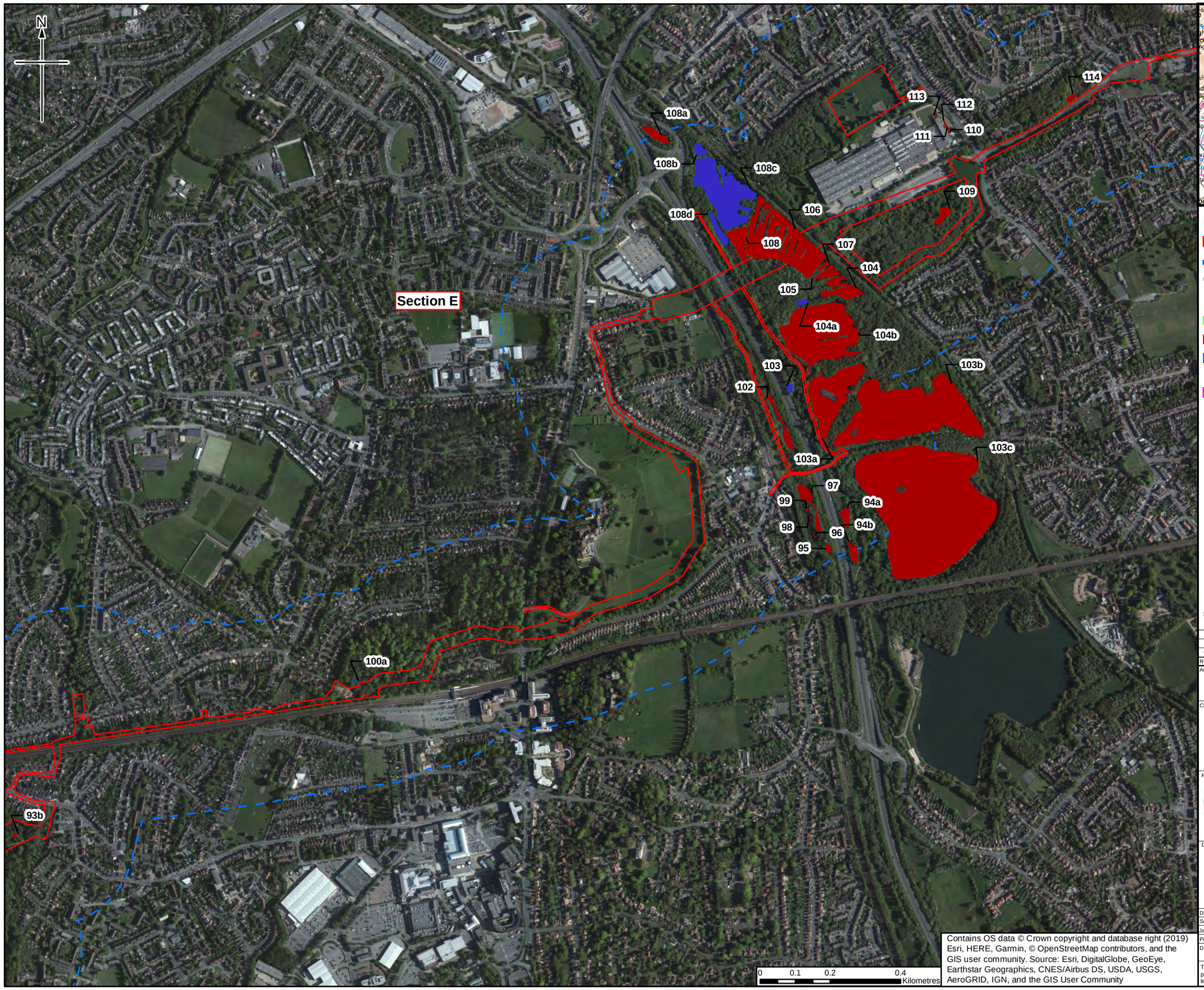
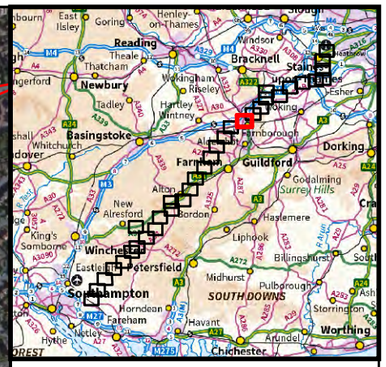
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Sheet 21 of 34	Rev 0





Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section E

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU. UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
Scale	1:10,000 @ A3	DO NOT SCALE
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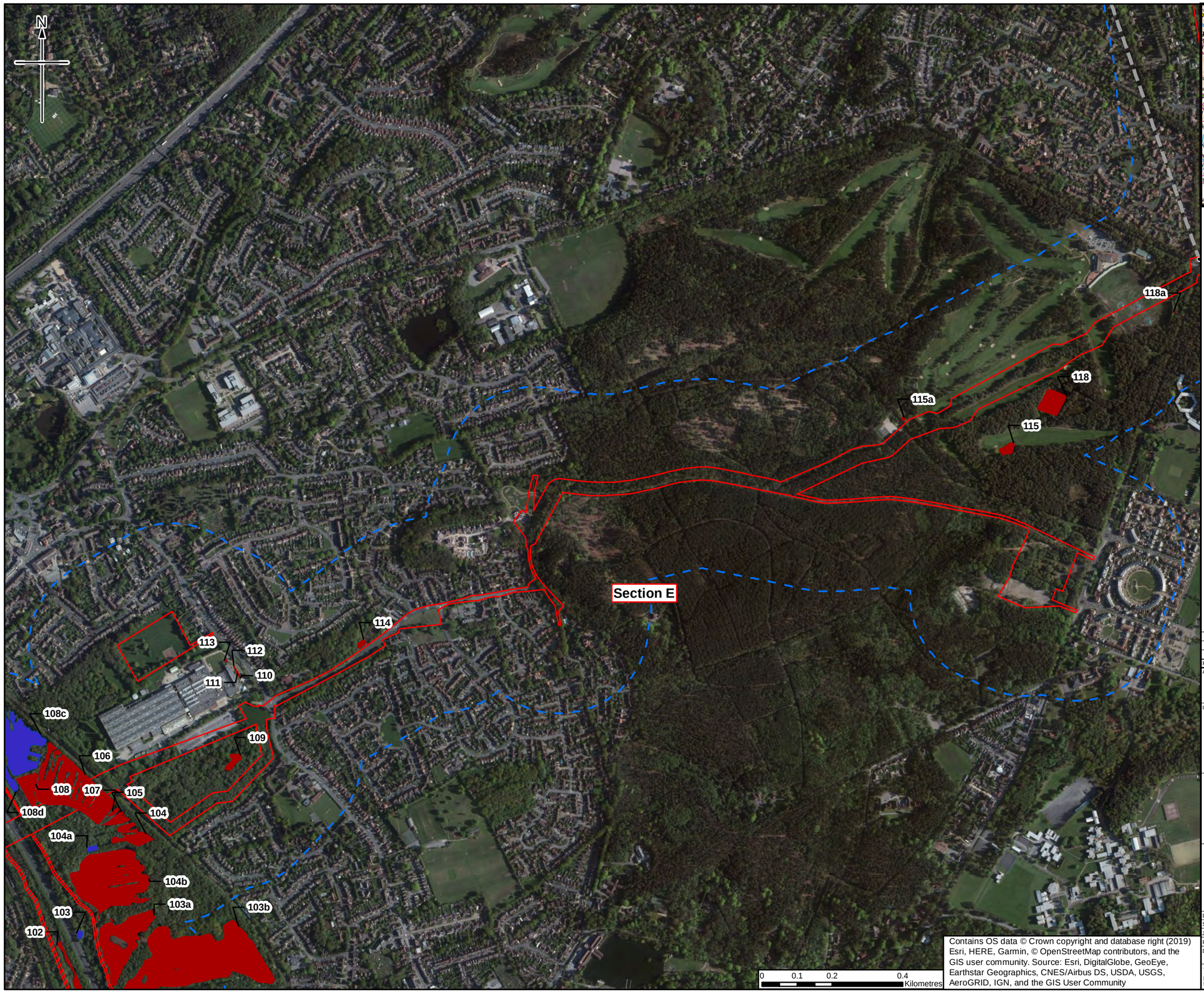
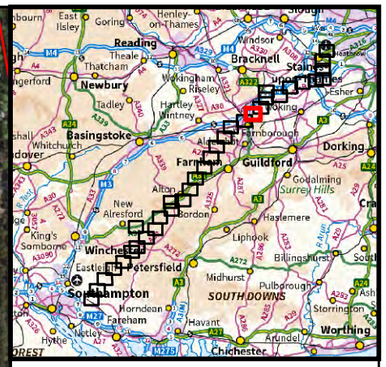
Drawing number	Figure C3.2a Sheet 22 of 34	Rev 0





Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section E

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprv'd
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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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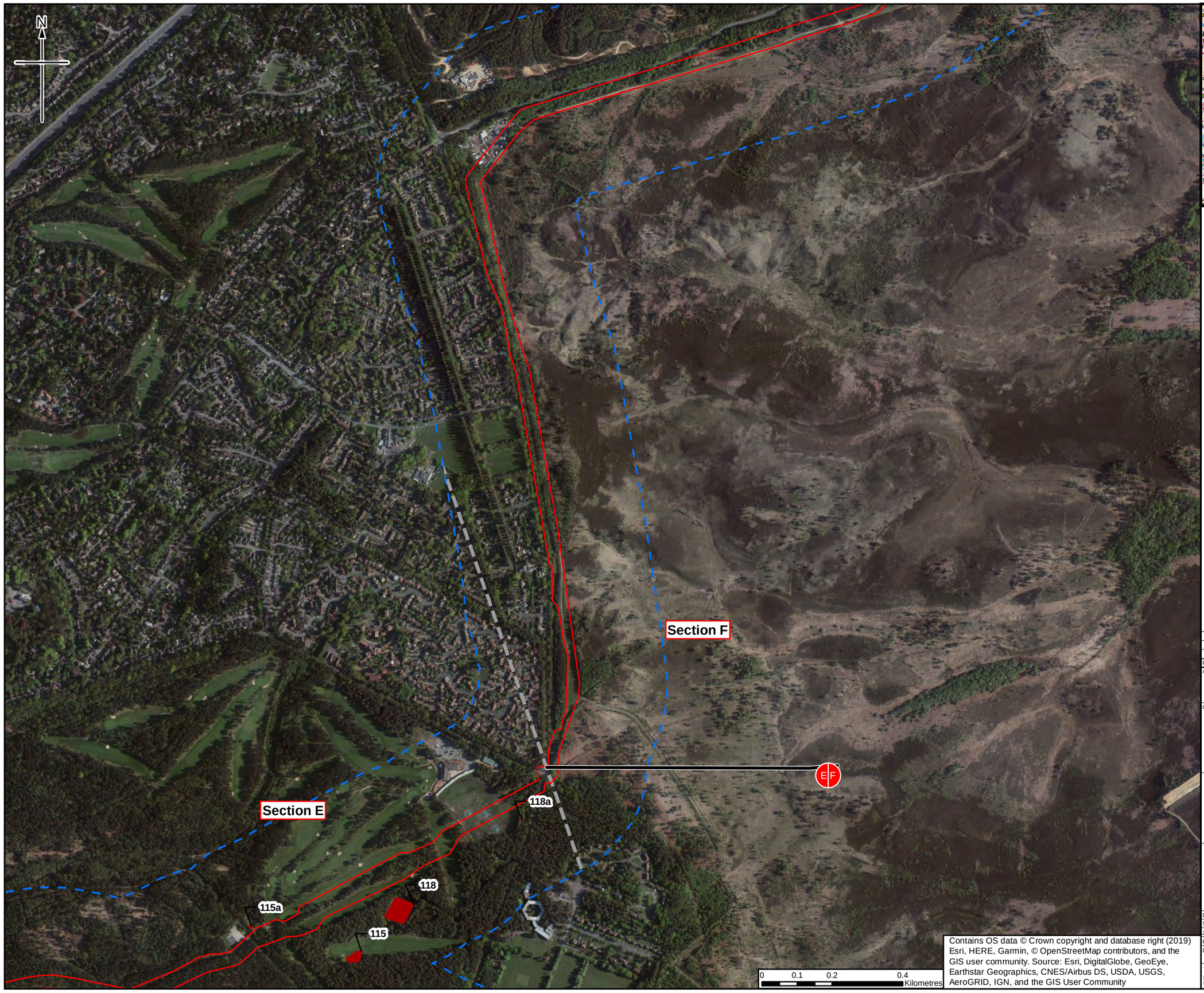
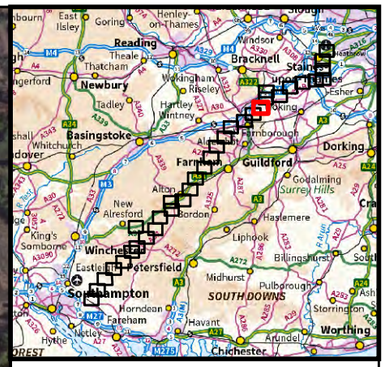
Drawing number	Figure C3.2a Sheet 23 of 34	Rev	0





Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays parts of Section E and Section F

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax:+44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

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APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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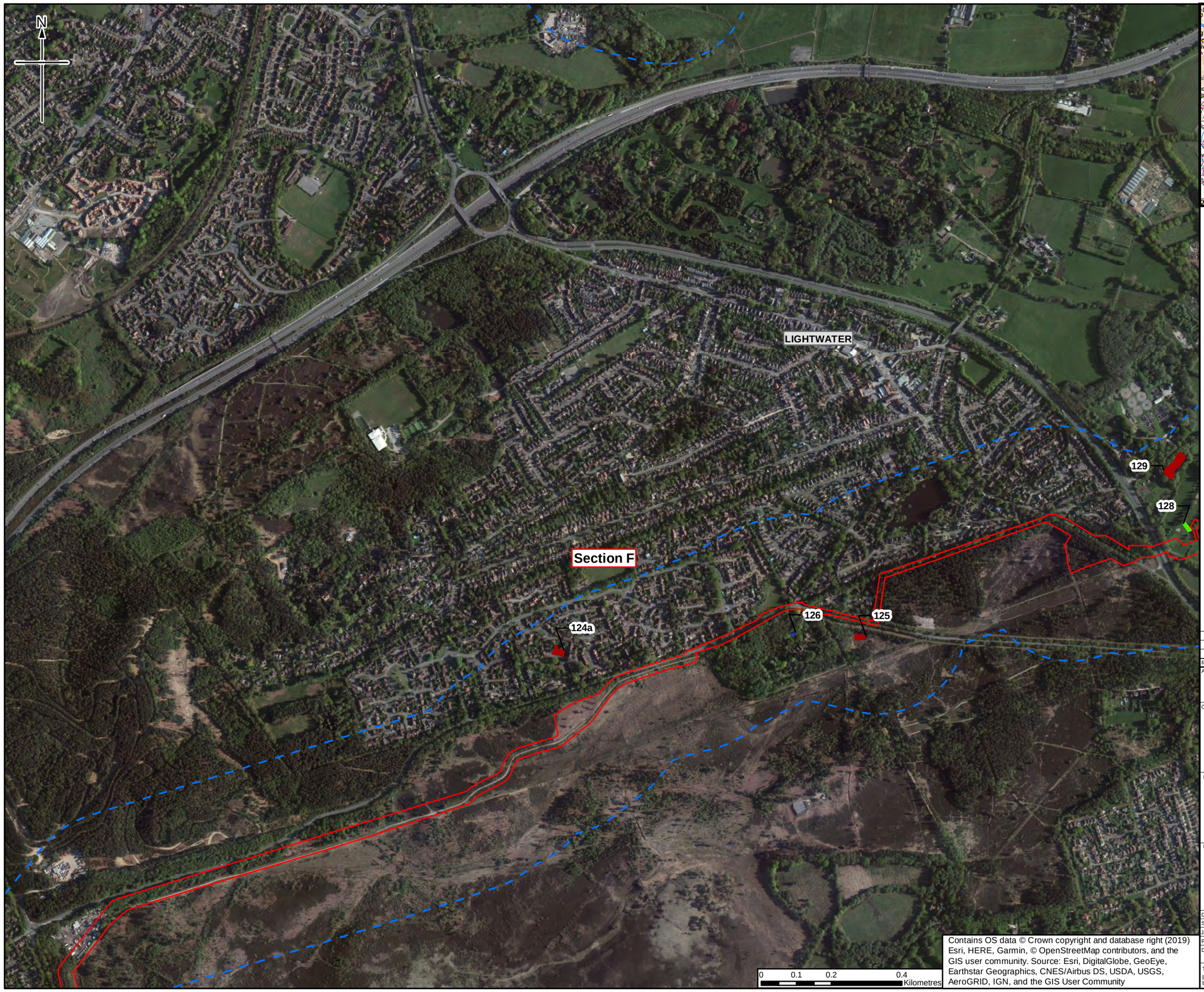

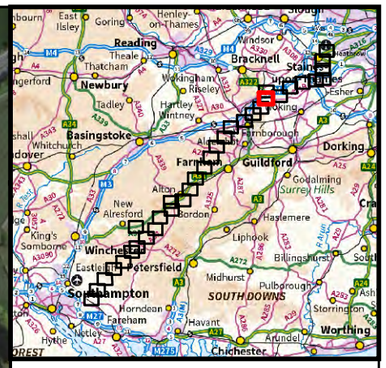

Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section F

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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

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ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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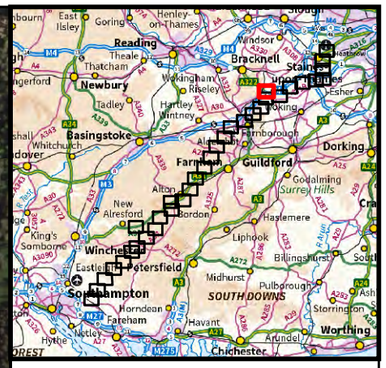
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090		
Drawing number	Figure C3.2a Sheet 25 of 34		Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section F

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Author
JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client
Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project
Esso Southampton to London Pipeline Project

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APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
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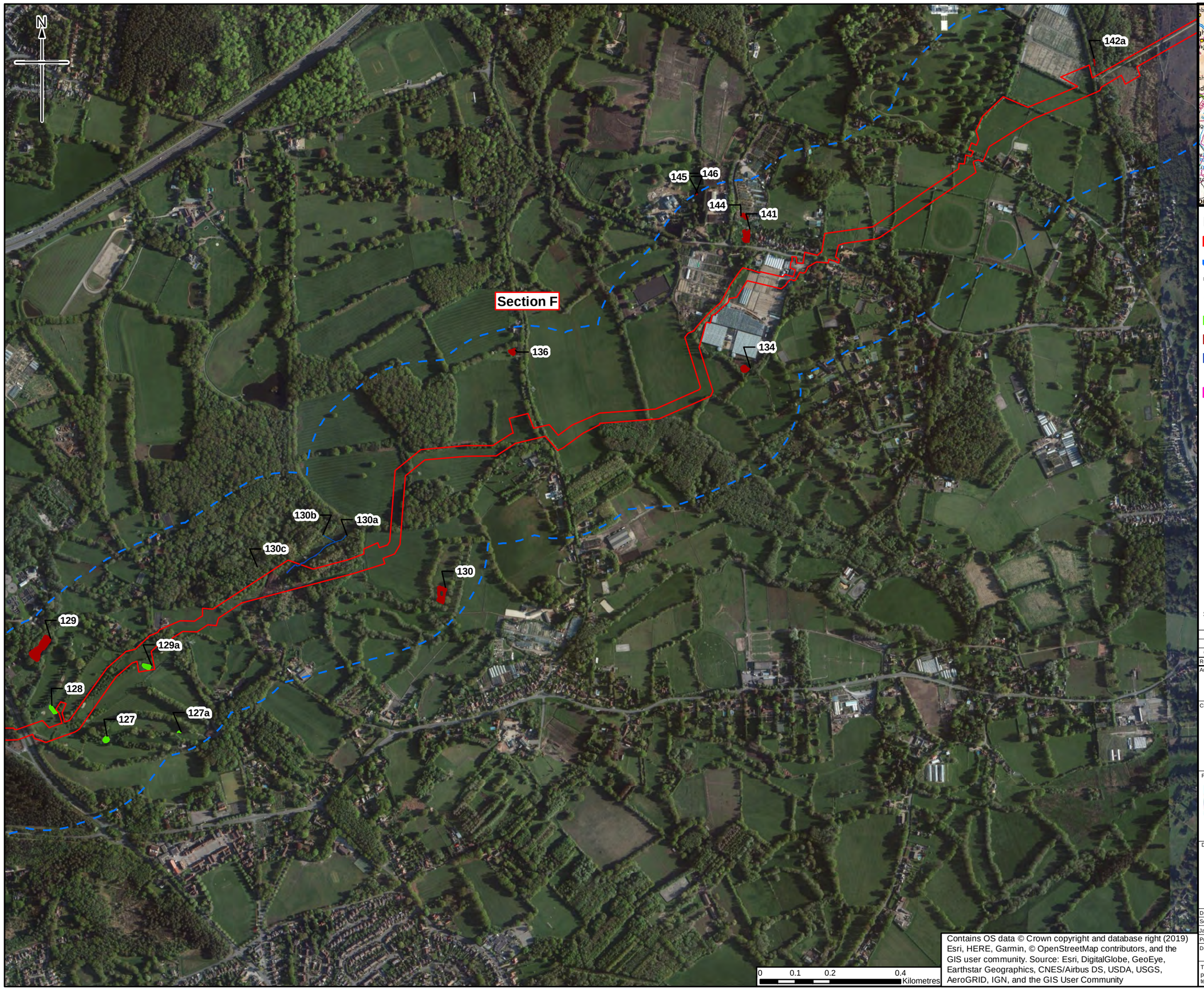
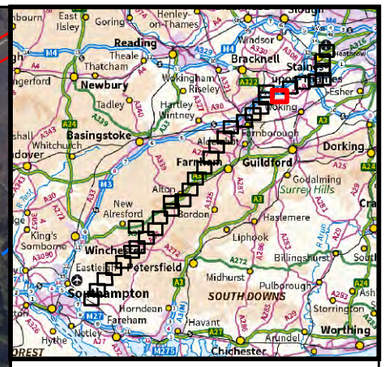
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Sheet 26 of 34	Rev 0





Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section F

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Author
JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client
Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project
Esso Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
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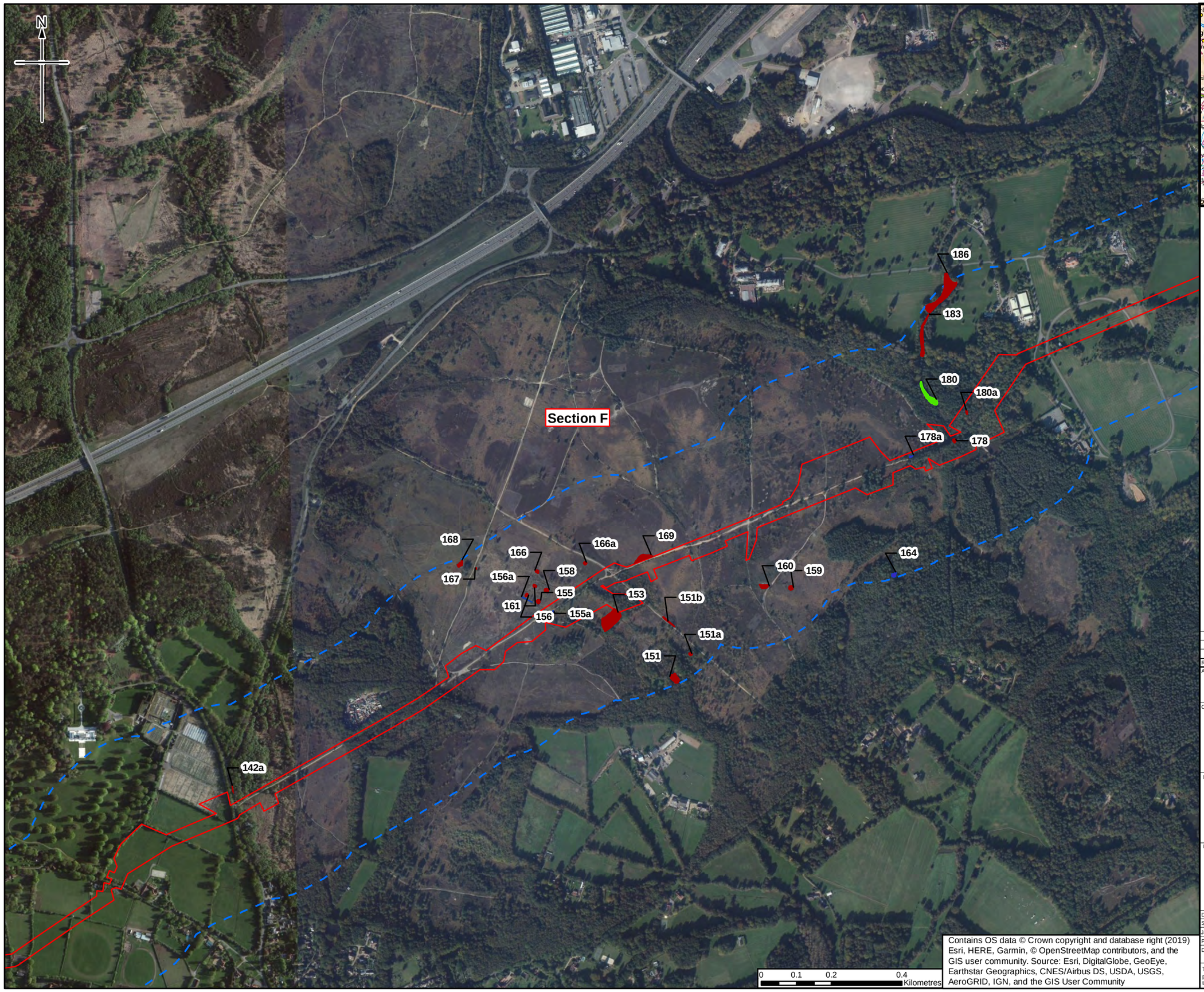
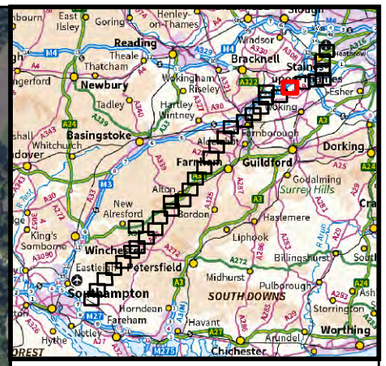
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090	
Drawing number	Figure C3.2a Sheet 27 of 34	Rev 0





Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section F

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprvd
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Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

Drawing title

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
Scale	1:10,000 @ A3	DO NOT SCALE	
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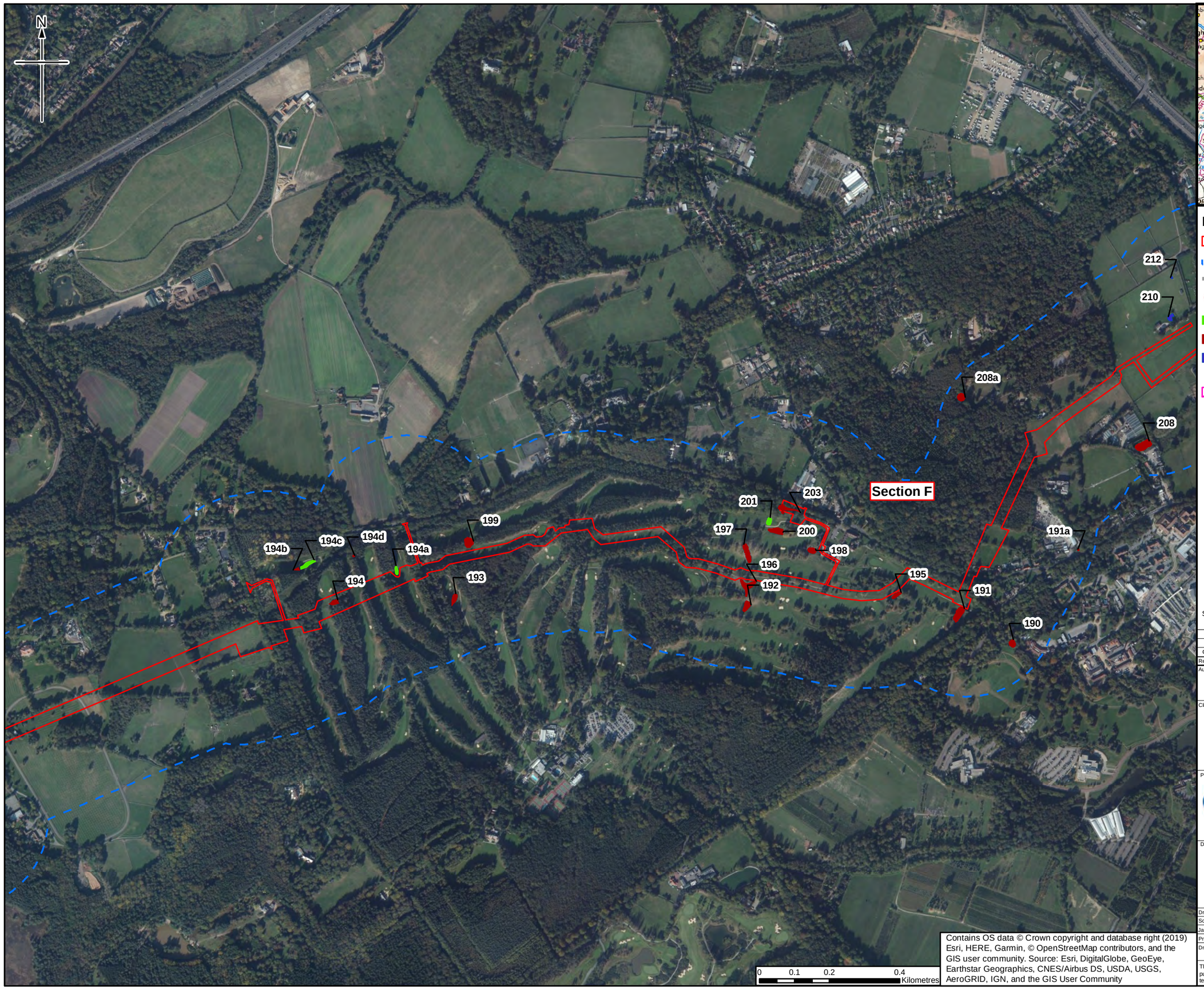
Drawing number	Figure C3.2a Sheet 28 of 34	Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section F

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0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
Scale	1:10,000 @ A3	DO NOT SCALE	
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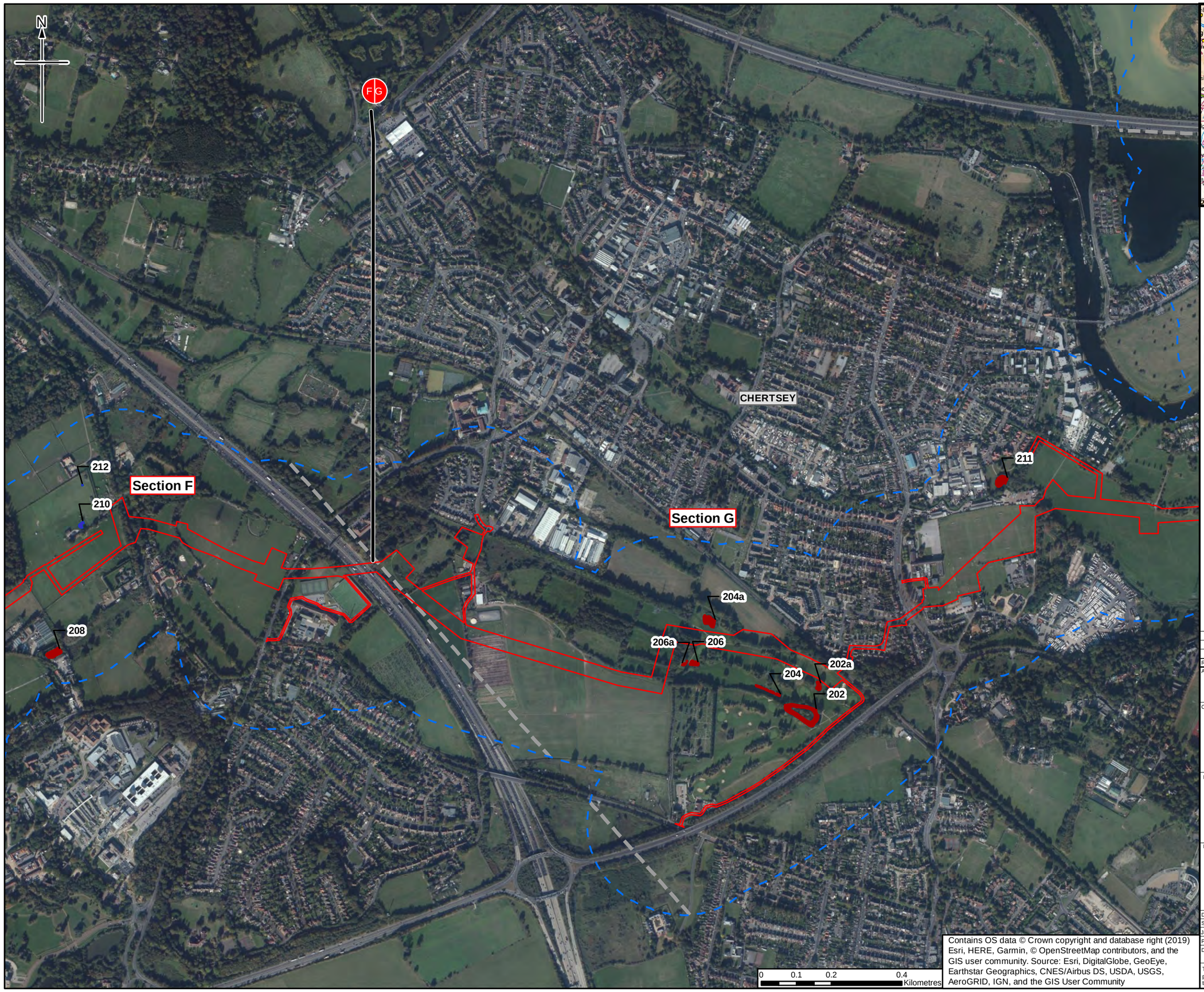
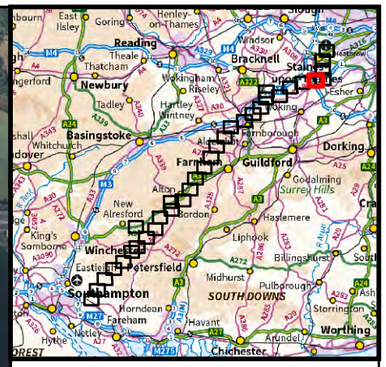
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090		
Drawing number	Figure C3.2a Sheet 29 of 34	Rev	0





Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays parts of Section F and Section G

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprv'd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso | Southampton to London Pipeline Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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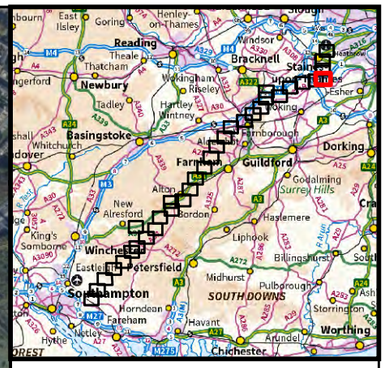
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001090		
Drawing number	Figure C3.2a Sheet 30 of 34	Rev	0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays parts of Section G and Section H

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprvd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax:+44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

Esso Southampton to London Pipeline Project

Drawing title

ENVIRONMENTAL STATEMENT
GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue		
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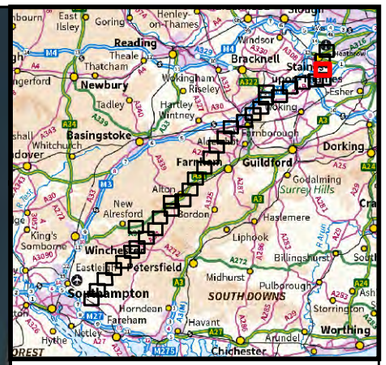
Drawing number: Figure C3.2a Sheet 31 of 34 — Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section H

Rev.	Rev. Date	Purpose of revision	Orig/Dwn	Checkd	Rev'd	Apprv'd
0	7/03/2019	For Issue	LW	TC	DJ	SH

Author

JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client

Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project

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GCN LICENCE - FIGURE C3.2A SURVEY MAP AND DESK STUDY RECORDS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
Scale	1:10,000 @ A3	DO NOT SCALE
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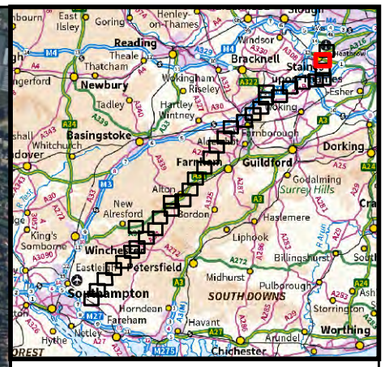
Drawing number: Figure C3.2a Sheet 32 of 34 — Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
- Hampshire Biodiversity Information Centre GCN record

Sheet displays part of Section H

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Author
JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client
Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project
Esso Southampton to London Pipeline Project

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APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue	
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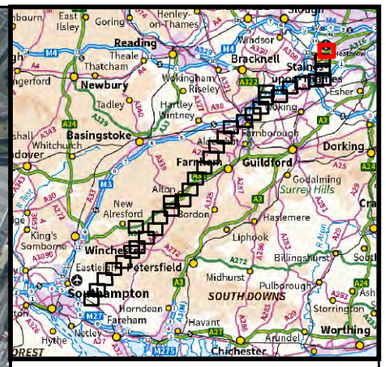
Drawing number	Figure C3.2a Sheet 33 of 34	Rev 0



Legend

- Order Limits
- Order Limits 250m buffer
- Section break
- Section break
- Positive GCN pond
- Negative GCN pond
- Pond not surveyed
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Author
JACOBS
1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client
Esso Petroleum Company, Limited
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Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project
Esso Southampton to London Pipeline Project

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Drawing number: Figure C3.2a Sheet 34 of 34 — Rev 0

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