F - Final post development Layout

F1 Final Post development Layout Figure F1 is required

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

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

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

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

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

H - List of figures

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

F-G-H Sum & Figs

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) <u>and</u> 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
		Yes - if: (a) population size class is large and impacts are moderate-high, or (b) regionally important population and impacts are moderate-high, or (c) losses of > 2 breeding water bodies on site supporting medium size class population, or (d) phased or multi-plot developments.

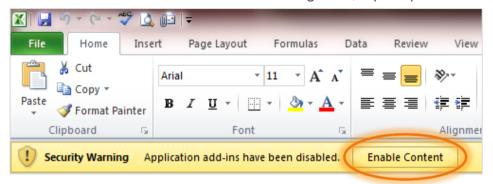
List any other maps, photographs or diagrams attached:

Next Section

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

- Do I need a licence? rapid risk assessment
- Conversions
- Non-licenced avoidance measures
- Survey data what kind, how much, how old?
- Measuring turbidity and vegetation cover
- Use of Habitat Suitability Index Scores
- Post development monitoring, advice and guidance
- References

(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 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 <u>all</u> 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 \geq 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 the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability
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 m ² :	=	0.0000 ha
Enter area in ha:	=	0 m ²

(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.

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 d	amage		•	•	
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	≤5	YES	NO	NO	4

liteatest politi (IND see flotes)	>5	YES	NO	YES	3
Temporary habitat loss or o	_l lamage				
Pond(s) lost or damaged, witl or without other habitat loss or damage	n ≥0	YES	YES	YES	2
No ponds lost or damaged, development within 50m of nearest pond	≤0.05	YES	NO	YES	3
	>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/	t/ Impact type and size			
population size class	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
i ligit population, riigit	pop size ciass	1 op 3120 01033	i op size ciass

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 <u>5 zero capture days may be the last 5 of the minimum capture period</u>, <u>but not earlier</u>. 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 reopened 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 restarted 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

G	CN Method Statement WML-A14-2 ((Version November 2017)
The Conservation of Hak	sitate and Species Populations 20	17

The Conservation of Habitats and Species Regulations 2017

Method Statement to support application for licence under Regulation 55(2)(e) in respect of Great created newto Triturus cristatus

crested newts Triturus cristatus		J	
Section A.			
Site/project name:	Southampton to L	ondon Pipeline (S	SLP)
Applicant (developer) name:	Esso Petroleum C	Company, Limited	
Named Ecologist:	TBC in the final a	pplication following	ng any grant of development consent
Is this application for a new Method S Statement (non-annexed only), or a		• ,	
	New method state	ement; not previo	usly licensed
If a re-submission, please give previous (eg EPSL, EPSM 20XX-3142A, 20XX-		erence	
(eg LF 3L, LF 3M 20// 3142/, 20//	AAA EF 3 WITT).		
in its entirety, including all maps,	appendices, repo	rts, etc. You mu	od Statement should be re-submitted ist clearly show any changes from L-U) or by changing the font colour.
	glish Nature, 2001).	. [Note: if you do r	te as set out in the <i>Great crested newt</i> not check the box to comply with good s on <i>Technical mitigation issues</i> in
NB: Please be concise with your in	nformation and de	escriptions prov	ided within your Method Statement
Section B Introduction You have provided a brief description following additional background and		application form,	, please provide the
Relationship with impacts due to a B1.1 Is this application part of a phase For example, is it part of a phased mownership residential scheme?	sed/multi-plot deve nineral extraction, h	lopment? See: ousing developm	Advice on Masterplan guidance ent or one plot in a multiple If No, go to Question B1.2
If yes, how many great crested newt	(GCN) licences will	Il be required?	
What licence application phase is thi	s? e.g. licence app	lication 1 of 3.	
Note: sections in this Method Stat relate to impacts only from the de	•		d mitigation measures must explicitly
Your separate master plan docum important to ensure that in-combine whole project are both sufficient a	nation effects are	•	• •
Confirm you provided:			
A Separate Masterplan documen	t	☐ Yes ☐ N	lo
Separate Masterplan figures		□ Yes	lo
A Habitat Management and Main	tenance Plan?	□ Yes	lo

If you have selected 'No' to any of the above questions, please explain why as these are considered necessary

B - Background & Site Info

<u> </u>	your application whilst we come back to you for this information.	
r this method state	ent also include a map FIG. B1.1 - <u>see Sum & Figs. tab.</u>	
rget population? You	ntioned in B1.1, are there other GCN mitigation projects which might affect the must make reasonable efforts to establish this, including discussions with your	
ent and the LPA.		
ent and the LPA.	cts within 100m of site boundary, and any further away that are likely to seriously	

B - Background & Site Info
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

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 spe	cified area		
C3.2 Survey area and justificationClearly state which areas were surveyedIf Other, please provide comments below:	Survey Area ── • 250m	○ 500m	O Other
Select which ponds were surveyed If Other, please provide comments below:	Ponds Surveyed O All Ponds	Some Ponds	O 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 <u>all ponds</u> 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 1 is 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	A -1-1141 1	 _	

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 If no, proceed to next section. Objective of terrestrial survey:
Which area was surveyed for terrestrial amphibians?

C - Survey Info

	ensure they retain or have					
	ort the licence application set out in any licence gran		ns after the	e first licenc	ce return	date
	show methods, timing, effo	<u> </u>				
Survey start date:	snow methods, timing, end	Survey end	l data:			
survey start date.		Survey end	i date.			
Method:	Refuge search	Pitfall	Night	search	Oth	ner**
ffort	-					
lo. of newts*						
otal newts:	0					
Metamorphs and imr	matures as percentage of total	catch:	1			
			J			
		curately to "no. of newt		ns", as indivi	duals are	
for this section, "n	o. of newts refers more ac	oundition, to 1101 on 110 int	helow			HOL
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istinguished in typ	oical surveys. If you have ind	dividual newt data, state				
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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. Pond ref GCN Surveyor / Accredited Agent 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)					
Accredited Agents (see below table) have taken the eDNA samples to support this licence application. Provide their names and licence references below. 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					
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this licence application. Provide their names and licence references below. 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	,			✓ 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					
Surveyors and licence references can be found in Annex A. Add more records here Additional records page C. Complete the following table					
Add more records here Additional records page C. Complete the following table	Pond ref GCN Sur	veyor / Accredited Agent		Licence Reference	
C. Complete the following table	Surveyors	s and licence references can be found in	n Annex A.		
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Politi Telefelice Date eDNA sample taken Result (presence of absence)		Data aDNA sample taken	Pocult (pro	conce or absonce)	
	rona reference	Date eDNA sample taken	Result (pre	serice or abserice)	
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.

C - Survey Info

Results of eDNA survey data m	nust be clearly depicted on Figure C3.2a.	
	Next Section	

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

Was an aquatic amphibian survey done? If no, proceed to next section. Yes

Total no. of ponds surveyed: If >10 ponds or >8 visits for a pond, provide further data... See additional Survey ponds 11-20 sheet 10

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 refere	nce (e.g. "P	ond 1") - be	elow	Method:		Torch		į i	Bottle-tra	р		Net		Egg search	Larvae
Pond 39					Torch po	wer:		No. of tra	ıps used i	n pond:	1			eggs found?	larvae found?
No. of surve	y visits to thi	s pond:	6		>= 1,000	,000 ср		11-50 tra	ps						(any method)
			;	Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(1) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				Yes	No
16/05/2018	8	2	1	Adult totals:	()		()			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		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			
(4) Date:	Air temp	Veg cover	Turbidity		1	1	0	0	1	0				No	No
31/05/2018	14	1	2	Adult totals:	2	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:	()			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			
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()		()			0			
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:))			0			
	Peak	adult count	for this pon	d in any one	visit (by t	orch, tra	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 refere	nce (e.g. Po	ond 2)		Method:		Torch		E	Bottle-tra	р		Net		Egg search	Larvae
Pond 55					Torch po	wer:		No. of tra	aps used	in pond:	1			eggs found?	larvae found?
No. of surve	y visits to thi	s pond:	6		>= 1,000	,000 ср		11-50 tra	ıps						(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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 pon	d in any one	visit (by	torch, tra	p 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.

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

Pond refere	nce (e.g. Po	ond 3)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
Pond 57a					Torch po	wer:		No. of tra	ıps used i	n pond:	1			eggs found?	larvae found?
No. of survey	y visits to thi	s pond:	6		>= 1,000	,000 ср		11-50 tra	ps						(any method)
			9	Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(1) Date:	Air temp	Veg cover	Turbidity		3	0	0	0	0	0				No	No
05/06/2018	10	2	1	Adult totals:	3	3		()			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	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	l			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			
(6) Date:	Air temp	Veg cover	Turbidity		0		0	1	0	0				No	No
21/06/2018	8	2	1	Adult totals:	()			1			0			
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()		()			0			
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()			0			
				d in any one											
Coi	mments and	constraints:	15-30 trap	os used ead	ch surve	y, depe	nding or	n water l	evels.						

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 4)

Pond reference (e.g. Pond 4)	Method:		Torch		E	3ottle-tra	р		Net		Egg search	Larvae
Pond 127		Torch po	wer:		No. of tra	ps used i	n pond:				eggs found?	larvae found?
No. of survey visits to this pond:	6	>= 1,000	,000 ср		11-50 tra	ps						(any method)
	Sex/life stage	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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 pon	d in any one v	isit (by tor	ch, trap	or net):	20					

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

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C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 5)

Pond refere	nce (e.g. Po	ond 5)		Method:		Torch		I	Bottle-tra	р		Net		Egg search	Larvae
Pond 127a					Torch po	wer:		No. of tra	aps used i	n pond:	1			eggs found?	larvae found?
No. of surve	y visits to thi	s pond:	5		>= 1,000	,000 ср		varies							(any method)
			Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.			
(1) Date:	Air temp	Veg cover	Turbidity		0	2	0	8	6	0				No	No
01/06/2018	13	4	2	Adult totals:	2	2		1	4			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	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 pon	d in any one v	visit (by tor	ch, 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.

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C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 6)

Pond refere	ence (e.g. Po	ond 6)		Method:		Torch			Bottle-tra	р	1	Net		Egg search	Larvae
Pond 128					Torch po	wer:		No. of tra	aps used i	n pond:				eggs found?	larvae found?
No. of surve	y visits to thi	s pond:	6		>= 1,000	,000 ср		11-50 tra	aps						(any method)
			5	Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male Fen	nale Im	ım.		
(1) Date:	Air temp	Veg cover	Turbidity		0	0	0	3	4	0				No	No
01/06/2018	13	5	2	Adult totals:	()			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	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	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:	()			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		
(6) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	1	1		No	No
20/06/2018	11	5	2	Adult totals:	0			ŕ			0		
(7) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()		0		
(8) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()		0		
	Peak	adult count	for this pon	d in any one	visit (by torc	h, traj	o 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.

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C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 7)

Pond refere	nce (e.g. Po	ond 7)		Method:		Torch		l	Bottle-tra	р		Net		Egg search	Larvae
Pond 129a					Torch po	wer:		No. of tra	aps used i	in pond:	1			eggs found?	larvae found?
No. of surve	y visits to thi	s pond:	4		>= 1,000	,000 ср		1-10 trap	s						(any method)
			Ş	Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(1) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
01/06/2018	13	4	4	Adult totals:	()			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		()			
(3) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	1	0				No	No
11/06/2018	8	4	4	Adult totals:	()			1		()			
(4) Date:	Air temp	Veg cover	Turbidity		0	0	0	0	0	0				No	No
13/06/2018	13	4	4	Adult totals:	()			0		()			
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()			0		()			
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()			0		()			
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()			0		()			

(8) Date:	Air temp	Veg cover	Turbidity								
				Adult totals:	0		()	0		
	Peak	adult count	for this pon	d in any one	visit (by torch, trap	or net):	1				
	mmonte and	d constraints	14/6 0 40 00	anible Fire	مطممم لمممير مص		Dan al 40	0	 المصالح من برسام برا	 	d oo ou ob

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

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C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 8)

NB: This page prints in landscape format

Pond refere	nce (e.g. Po	ond 8)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
Pond 201				1	Torch po	wer:		No. of tra	aps used	in pond:				eggs found?	larvae found?
No. of surve	y visits to thi	is pond:	5		>= 1,000	,000 ср		1-10 trap	s						(any method)
			,	Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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		()			
(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		()			
(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		()			
(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		()			
(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		()			
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:		0			0		()			
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:		0			0		()			
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:		0			0)			
				d in any one											
Co	mments and	constraints:	2-5 traps	used each	survev.	depend	ina on v	vater lev	els:						

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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.

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

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 9)

NB: This page prints in landscape format

Pond refere	nce (e.g. Po	ond 9)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
Pond 194a					Torch power: No. of traps used in pond:					eggs found?	larvae found?				
No. of survey visits to this pond:				>= 1,000	,000 ср								(any method)		
			5	Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	7	
(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			
(2) Date:	Air temp	Veg cover	Turbidity		0	0	0				(0		0 No	No
31/05/2018	10	4	2	Adult totals:)			0			0			
(3) Date:	Air temp	Veg cover	Turbidity		0	0	0				(0		0 No	No
04/06/2018	13	5	2	Adult totals:	()			0			0			
(4) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()			0			0			
(5) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:	()			0			0			
(6) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:)			0			0			
(7) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:)			0			0			
(8) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:)			0			0			
	Peak	adult count	for this pon	d in any one	visit (by t	orch, tra	p 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			Larvae
Pond 194c			Torch power:		No. of traps used in pond:			1		eggs found?	larvae found?				
No. of survey	visits to thi		>= 1,000,000 cp			11-50 tra	ıps					(any method)			
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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 pon	d in any one	visit (by	torch, tra	p 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)

Confirm that you have undertaken a walkover survey within 3 months prior to submission	✓ Yes
2. If the survey was not undertaken this year, please confirm whether there are any changes to hal (aquatic or terrestrial). If yes, please detail the nature of the changes below.	bitats
Next Section	

C5 Interpretation and evaluation

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

Enter whether GCNs (<u>any</u> 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.

II can lulai sile cuulil ilui ali pullus sulveyeu.	l	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

C - Survey summary

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

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 m² or m² to ha please use this converter

Total Area of Development (ha): 24.15

D1.1 Breakdown of terrestrial impacts

viii oi torrootiriai iiii	Judio		
Pe	Permanent		oorary
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	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

	Perm	anent	Tem	oorary
	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

E1 The mitigation solution being proposed in the Method Statement should be the one that delivers the 'need' with the least impact on the newt population.

Please explain why this design was chosen over other potential solutions - set out what other mitigation proposals were considered and why they were not feasible, for example:

- •If the proposal is to construct a new road and it will destroy breeding ponds, explain why it is not possible to retain the ponds in the proposed design etc; or,
- •if a residential development results in a net loss of habitat, explain why it was not possible to reduce the housing footprint; or,
- •if pond drain down is planned for the summer months when newts are breeding please explain why it is not possible to schedule this in, followed by pond destruction, in late September onwards; or
- •if your proposal includes a non-standard approach to meeting the 'need'.

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 m² or m² to ha please use this converter

Aquatic Impacts			Compensation			
habitat	Effect	Number	Total Area (m²)	Measure	Number	Total Area (m²)
CCN pende	Lost	0	0	Created	0	0
GCN ponds	Damaged	0	0	Restored / reinstated / enhanced	0	0

Terrestrial	Impa	icts	Compensation Area gained (ha)		
habitat	Area los	st (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 (m²)	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	a (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.

E - Mitign & compn

B: Do not put in specific dates here, add these into E6a (separate document). a addition, approximately Sha of agricultural would be returned to the land owner in suitable condition for onlinued useage. An additional 0.2ha of bracken and 0.3ha of healthland would be allowed to naturally restablish. See Annex B for full details with respect to mitigation. 23.3 Integration with roads and other hard landscapes. Explain any measures you will take to integrate mitigation with roads and other hard landscapes. If you proping 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) B: Locations & details of any proposed connectivity measures must be provided on FIG. E3.3 - see:	(Confirm landowner agreement for in Declaration worksheet J).	r these measures, if they are to be created on land outside of the applicant's ownershi
Explain any measures you will take to integrate mitigation with roads and other hard landscapes. If you proposed connectivity measures will be ensured) Maintenance (to detail how long-term functionality of the underpass(es) and entrances will be ensured) MB: Locations & details of any proposed connectivity measures must be provided on FIG. E3.3 - see: Sum & Figs. tab MB: If you have identified fragmentation as an impact this is something you should address.	n addition, approximately 5ha continued useage. An additiona	of agricultural would be returned to the land owner in suitable condition for all 0.2ha of bracken and 0.3ha of healthland would be allowed to naturally re-
Explain any measures you will take to integrate mitigation with roads and other hard landscapes. If you proposed connectivity measures will be ensured) Maintenance (to detail how long-term functionality of the underpass(es) and entrances will be ensured) MB: Locations & details of any proposed connectivity measures must be provided on FIG. E3.3 - see: Sum & Figs. tab MB: If you have identified fragmentation as an impact this is something you should address.		
Monitoring (to include methodology and duration) Maintenance (to detail how long-term functionality of the underpass(es) and entrances will be ensured) IB: Locations & details of any proposed connectivity measures must be provided on FIG. E3.3 - see: Sum & Figs. tab IB: If you have identified fragmentation as an impact this is something you should address.	Explain any measures you will t	take to integrate mitigation with roads and other hard landscapes. If you propo
Maintenance (to detail how long-term functionality of the underpass(es) and entrances will be ensured) IB: Locations & details of any proposed connectivity measures must be provided on FIG. E3.3 - see: Sum & Figs. tab IB: If you have identified fragmentation as an impact this is something you should address.	Design (to include length, wid	Ith, height and guide fencing)
IB: Locations & details of any proposed connectivity measures must be provided on FIG. E3.3 - see: Sum & Figs. tab IB: If you have identified fragmentation as an impact this is something you should address.	Monitoring (to include method	dology and duration)
Sum & Figs. tab IB: If you have identified fragmentation as an impact this is something you should address.	Maintenance (to detail how lo	ng-term functionality of the underpass(es) and entrances will be ensured)
VA		Sum & Figs. tab
	N/A	

E Mitigation & compensation (continued)

E4 Capture, exclusion & translocation: <u>Please do not refer to any dates in this section</u> - these should be provided in E6.

State capture +/or exclusion methods, with effort levels.	Pls Read Advice Notes	
	Use method?	Minimum capture effort
	Yes/no	(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 <u>quidance on capture effort</u>

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 8	& compensation (continued)	
_	lopment site safeguard. Refer to Section 8.5 of the Great crested newt mitigation	auidelines.
	management & maintenance	9
	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 & Fig	ıs" tab.
Indicate which	areas (including which ponds) the management and maintenance plan will apply to.	
State which of	the following site maintenance energtions will ensure	
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 perio	od for which habitat management and maintenance plan will continue:	
·		
NOTE: A separ	ate, detailed plan must also be attached if	
	ize class is large and impacts are moderate-high,	
	portant population and impacts are moderate-high,	
	2 breeding water bodies on site supporting medium size class population, or	
(d) phased or m	nulti-plot developments.	
If your propose	al meets one of the above (a - d), confirm that such a document is attached:	
□ Yes □		
	you have selected 'No', you are likely to receive a Further Information Request.	
	,	
F5 2 Post-day	elonment population monitoring (refer to Section 8.5.2 of the Great crested newt mi	tigation

E - Mitign & compn 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?..... ☑ 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...... ii) Clause to relinquish future development rights in S106 agreement....... iv) Explicit recognition of site in local planning documents..... v) Designation as County Wildlife Site or similar..... 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

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 <u>Work Schedule for Great crested newt Annexed Licence</u>, and submit with your application.

Next section

I - Declarations

BC in the final application following any grant of development consent: Southampton to London Pipeline (SLP) I - Declarations Re: E2: I confirm that relevant landowner consent/s has/have been granted to accept great ✓ Yes crested newts onto land outside the applicant's ownership. □ N/A Re: E3.1 and E3.2 - I confirm that landownership consent/s has/have been granted to allow the ✓ Yes creation of the proposed habitat compensation (aquatic or terrestrial) on land outside the □ N/A applicant's ownership. Re: E5.2 - I confirm that consent/s has/have been granted by the relevant landowner/s for ☐ Yes monitoring and maintenance purposes, as set out in E5.2, on land outside the applicant's ☑ N/A ownership. RE: E5.1 and E5.2 - I, the applicant, confirm that all habitat management, maintenance and ✓ Yes monitoring detailed in section 5, and accompanying documents, will be undertaken. □ N/A 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

	of additionse this page	e to record extra	a data, if more th	nan 10 ponds	were surveye	ed - Ponds <i>'</i>	11 - 20	
C3.3i con	tinued Pon	nds 11 - 20				Bad	ck to Original	section
Pond ref				Description	n			
					•			
	1							
C3.3ii cor							ck to Original	section
Pond ref	Distance	Surveye	d or not?		If no	ot why not?		
	(m)							
C3.5 add	itional ponc	ds HSI score				Bad	ck to Original	section
C3.5 add		ds HSI score				Bad	ck to Original	section
C3.5 add	Date HSI as					Bad	ck to Original	<u>section</u>
C3.5 add	Date HSI as	sessmt				Bac	ck to Original	section_
C3.5 add	Date HSI as Pond ref SI1 - Location	sessmt				Bad	ck to Original	<u>section</u>
C3.5 add	Date HSI as Pond ref SI1 - Locatio SI2 - Pond a	sessmt on area				Bac	ck to Original	<u>section</u>
C3.5 add	Date HSI as Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d	sessmt on area drying				Bac	ck to Original	section
C3.5 add	Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water	sessmt on area drying quality				Bac	ck to Original	<u>section</u>
C3.5 add	Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water SI4 - Shade	sessmt on area drying quality				Bac	ck to Original	section
C3.5 add	Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water o SI4 - Shade SI6 - Fowl	sessmt on area drying quality				Bac	ck to Original	<u>section</u>
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C3.5 add	Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water o SI4 - Shade SI6 - Fowl	sessmt on area drying quality				Bac	ck to Original	section
C3.5 add	Pond ref SI1 - Location SI2 - Pond at SI3 - Pond di SI4 - Water of SI4 - Shade SI6 - Fowl SI7 - Fish	sessmt on area drying quality				Bac	ck to Original	section
C3.5 add	Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water SI4 - Shade SI6 - Fowl SI7 - Fish SI8 - Ponds	sessmt on area drying quality				Bac	ck to Original	section
C3.5 add	Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water o SI4 - Shade SI6 - Fowl SI7 - Fish SI8 - Ponds SI9 - Terr'l h SI10 - Macro	sessmt on area drying quality				Bac	ck to Original	section
C3.5 add	Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water o SI4 - Shade SI6 - Fowl SI7 - Fish SI8 - Ponds SI9 - Terr'l h	sessmt on area drying quality				Bac	ck to Original	section
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C3.5 add	Date HSI as: Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water SI4 - Shade SI6 - Fowl SI7 - Fish SI8 - Ponds SI9 - Terr'l h SI10 - Macro HSI Date HSI as: Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d	sessmt on area drying quality abitat ophytes sessmt on area drying				Bac	ck to Original	section
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C3.5 add	Date HSI as: Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water SI4 - Shade SI6 - Fowl SI7 - Fish SI8 - Ponds SI9 - Terr'l h SI10 - Macro HSI Date HSI as: Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d	sessmt on area drying quality abitat ophytes sessmt on area drying quality				Bac	ck to Original	section
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C3.5 add	Date HSI as: Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water SI4 - Shade SI6 - Fowl SI7 - Fish SI8 - Ponds SI9 - Terr'l h SI10 - Macro HSI Date HSI as: Pond ref SI1 - Locatio SI2 - Pond a SI3 - Pond d SI4 - Water o SI4 - Shade SI6 - Fowl	sessmt on area drying quality abitat ophytes sessmt on area drying quality				Bac	ck to Original	section

Additional records

	SI10 - Macro	ophytes						
	HSI							
C4.2iii Co	ntinued					Bac	k to Original	section
Pond ref	GCN Surv	eyor / Accredite	d Agent			Licence Re		
4.2c Cont							ck to Original	section_
Pond refe	rence	Date eDNA san	nple taken		Result (pres	ence or abs	ence)	
E2.3 Rec	eptor site l	ocations. Contin	ued			Ba	ck to original	section
Site name	· •	OS g	rid ref	Administr	ation area - i		Distance f	
			2345678	from	developmen	t site	developme	nt site
		s): continued				<u>Ba</u>	ck to original	
Site name	9	Site Ownership					Conserva Designati	
EQ E Dari	onto: a!+-/-	\\. aamtimira -l				D-	ak ta ariainal	oostic:
Site name		s): continued Habitat descript	ion			Size (ha)	ck to original Adjacent Lai	
One name	,	i iabilat descript	.iOH			Oize (IIa)	Aujauent Lai	10 USE

TBC in the final application following any grant of development consent: Southampton to London Pipeline (SLP) 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. Female Imm. Female Imm. Male Male (1) Date: Air temp Veg cover Turbidity No No 0 0 0 Adult totals: (2) Date: Air temp Vea cover Turbidity 0 0 0 Adult totals: Veg cover (3) Date: Air temp Turbidity 0 0 0 Adult totals: (4) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (5) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (6) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: Veg cover Turbidity (7) Date: Air temp 0 0 0 Adult totals: Veg cover Turbidity (8) Date: Air temp 0 0 Adult totals: 0 Peak adult count for this pond in any one visit (by torch, trap or net): Comments and constraints:

C4.3 Aquatic amphibian survey (conventional methods)- GCN results (cont - Pond 12)

NB: This page prints in landscape format

Pond refe	rence (e.g. F	Pond 12)		Method:		Torch			Bottle-tra	p		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	aps used ir	n pond:	1			eggs found?	larvae found?
No. of surv	ey visits to the	his pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pe	ak adult cou	nt for this p	ond in any on	e visit (by	y torch, tra	p or net):	(ו						
	comments an	d constraints	:						-						

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C4.3 Aquatic amphibian survey (conventional surveys- GCN results (cont - Pond 13)

Pond reference	(e.g. Pond 13)	Method:	Torch	Bottle-trap	Net	Egg search	Larvae

lo. of surve	v vicite to th			_	Torch power: N		No. of traps used in pond:						eggs found?	larvae found?	
	y visits to tii	is pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
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			
	Pea	k adult cour	nt for this p	ond in any one	e visit (by	torch, tra	p or net):	C							
Co	mments and	d constraints:													

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont- Pond 14)

Pond	refere	nce (e.g. P	ond 14)		Method:	Torch				Bottle-tra	р	Net			Egg search	Larvae
	o of survey visits to this pond:				7	Torch po	wer:		No. of tra	ıps used ir	pond:	1			eggs found?	larvae found?
No. of	. of survey visits to this pond:															(any method)
	,			Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.			
(1) Da	ate:	Air temp	Veg cover	Turbidity												
	Adult total		Adult totals:		0			0			0					
(2) Da	ate: 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		
	Pea	k adult cour	nt for this po	nd in any one	e visit (by torch,	trap or net):	0			

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C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 15)

Pond refe	rence (e.g. P	ond 15)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	aps used ir	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	is pond:									1				(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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		
	Pea	k adult cour	nt for this po	nd in any one	e visit (by torch, tra	p or net):	0			

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

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 16)

Pond refer	ence (e.g. P	ond 16)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	aps used ir	n pond:				eggs found?	larvae found?
No. of surve	ey visits to th	is pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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 coun	t for this pond in any one	visit (by torch, tra	ap 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 refer	ence (e.g. P	ond 17)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	aps used ir	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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			
	Pea	ak adult cour	nt for this p	ond in any on	e visit (by	y torch, tra	ap or net):	()						

Comments and constraints:

C4.3 Aquatic amphibian survey (conventional methods)- GCN results (cont - Pond 18)

NB: This page prints in landscape format

Pond refer	ence (e.g. P	ond 18)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ps used ir	n pond:				eggs found?	larvae found?
No. of surv	ey visits to th	is pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ık adult coui	nt for this po	ond in any on	e visit (by	torch, tra	p or net):	0							

Comments and constraints:

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

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 19)

Pond refer	ence (e.g. P	ond 19):		Method:		Torch			Bottle-tra	p		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ps used in	pond:				eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (by	y torch, tra	p or net):	(

C4.3 Aquatic amphibian survey (conventional methods) - GCN results (cont - Pond 20)

Pon	nd reference (e.g. Pond 20)		Method:		Torch			Bottle-tra	p		Net		Egg search	Larvae
				Torch pov	wer:		No. of tra	ps used in	pond:				eggs found?	larvae found?
No.	of survey visits to this pond:													(any method)
		5	Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		

(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		
	Pea	ık adult coui	nt for this po	ond in any one	e visit (by torch, tra	p or net):	0			

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

Was an aquatic amphibian survey done?

Yes

If no, proceed to next section.

Return to Ponds 1 - 10 tab

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 refe	rence (e.g. "	Pond 21") - b	pelow	Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	aps used ir	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	is pond:	0								1				(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cour	nt for this po	ond in any on	e visit (b	y torch, tra	ap or net):	()						

Comments and constraints:

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

NB: This page prints in landscape format

Pond refer	rence (e.g. P	ond 22)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ıps used ir	n pond:				eggs found?	larvae found?
No. of surv	ey visits to th	is pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (b	y torch, tra	ap or net):	C							

Comments and constraints:

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

C4.3 Aquatic amphibian survey (conventional surveys- GCN results (cont.)

Pond refe	rence (e.g. F	ond 23)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	aps used ir	n pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (b	y torch, tra	ap or net):	: ()						
C	omments an	d constraints	:												

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

Pond re	ference (e	.g. Po	ond 24)		Method:		Torch			Bottle-tra _l	o		Net		Egg search	Larvae
						Torch po	wer:		No. of tra	ps used in	pond:				eggs found?	larvae found?
No. of su	survey visits to this pond:															(any method)
	survey visits to this pond:				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(1) Date:	Air ter	np	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		
	Pea	ık adult coui	nt for this po	ond in any one	e visit (by torch, t	ap or net):	0			

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

Pond refer	rence (e.g. P	ond 25)		Method:		Torch			Bottle-tra	p		Net		Egg search	Larvae
					Torch po	ower:		No. of tra	aps used in	pond:				eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male			Male	Female	lmm.	Male	Female	lmm.		
(1) Date:	Air temp	Veg cover	Turbidity			0									
				Adult totals:		0			0			0			
(2) Date:	Air temp	Veg cover	Turbidity			0									
				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		
	Pea	k adult cour	nt for this po	nd in any one	e visit (by torch, tra	p or net):	0			

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

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

Pond refe	rence (e.g. P	ond 26)		Method:		Torch			Bottle-tra	p		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ps used in	pond:				eggs found?	larvae found?
No. of surv	ey visits to th	is pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(1) Date:	Air temp	Veg cover	Turbidity			0									
				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		
	Pea	k adult cour	nt for this po	nd in any one	e visit (by torch, t	ap or net):	0			
Co	mments and	l constraints:								

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

NB: This page prints in landscape format

Pond refe	rence (e.g. P	ond 27)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ıps used in	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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			
	Pea	ak adult cour	nt for this p	ond in any on	e visit (by	y torch, tra	p or net):	C							

Comments and constraints:

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

NB: This page prints in landscape format

Pond refe	rence (e.g. P	ond 28)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ps used ir	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:		Ī											(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (b	y torch, tra	p or net):	0							

Comments and constraints:

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

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

Pond refe	rence (e.g. F	ond 29):		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ps used ir	n pond:				eggs found?	larvae found?
No. of surv	ey visits to the	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (by	/ torch, tra	p or net):	0							
	comments an	d constraints:													

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

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

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?
No. of survey visits to this pond:						(any method)

C - Survey - Pond 21-30

				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	
(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		
	Pea	k adult coul	nt for this p	ond in any on	e visit (b	y torch, tra	p or net):	C						

Comments and constraints:

TBC in the final application following any grant of development consent: Southampton to London Pipeline (SLP) 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 lmm. Male Female Imm. Male Female Imm. Air temp Veg cover Turbidity (1) Date: Adult totals: 0 0 0 Veg cover (2) Date: Air temp Turbidity 0 0 0 Adult totals: Veg cover Turbidity (3) Date: Air temp 0 0 0 Adult totals: (4) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (5) Date: Veg cover Turbidity Air temp 0 0 0 Adult totals: (6) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (7) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (8) Date: Air temp Veg cover Turbidity O 0 Adult totals: 0 Peak adult count for this pond in any one visit (by torch, trap or net): Comments and constraints:

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

NB: This page prints in landscape format

Pond refer	rence (e.g. P	ond 32)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ps used ir	pond:				eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (by	y torch, tra	p or net):	0							

Comments and constraints:

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

C4.3 Aquatic amphibian survey (conventional surveys- GCN results (cont.)

Pond refe	rence (e.g. F	ond 33)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ps used ir	n pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (by	torch, tra	ap or net):	0							
С	omments an	d constraints	:												

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

Pond refere	nce (e.g. Po	ond 34)		Method:		Torch			Bottle-tra _l	р		Net		Egg search	Larvae
					Torch pov	wer:		No. of tra	ps used in	pond:				eggs found?	larvae found?
No. of survey	y visits to thi	s pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(1) Date:	Air temp	Veg cover	Turbidity												
				Adult totals:		0			0			0			

(2) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(3) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(4) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(5) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(6) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(7) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(8) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
	Pea	ık adult coui	nt for this po	ond in any one	e visit (by to	orch, tra	p or net):	0					

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

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

Pond reference (e.g. Pond 35)				Method:	Torch		Bottle-trap					Egg search	Larvae		
					Torch power:			No. of traps used in pond:				eggs found?	larvae found?		
No. of survey visits to this pond:													(any method)		
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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		
	Pea	k adult cour	nt for this po	nd in any one	e visit (by torch, tra	p or net):	0			

Comments and constraints:

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

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

Pond refe	rence (e.g. P	ond 16)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	aps used ir	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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		
	Pea	k adult cour	nt for this po	ond in any one	e visit (by torch, tra	ap or net):	0			
Co	mments and	constraints:								

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

NB: This page prints in landscape format

Pond refe	rence (e.g. P	ond 37)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ıps used in	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (by	y torch, tra	p or net):	C							

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

NB: This page prints in landscape format

Pond refer	ence (e.g. P	ond 38)		Method:		Torch			Bottle-tra	p		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ps used in	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	is pond:									1				(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cour	nt for this p	ond in any one	e visit (b	y torch, tra	p or net):	C							

Comments and constraints:

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

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

Pond refe	rence (e.g. P	ond 39):		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ıps used ir	pond:				eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:		Ī											(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cour	nt for this p	ond in any on	e visit (by	torch, tra	p or net):	C							
С	omments an	d constraints:													

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

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?
No. of survey visits to this pond:						(any method)

C - Survey - Pond 31-40

				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(1) Date	Air temp	Veg cover	Turbidity												
				Adult totals:		0			0			0			٦
(2) Date	Air temp	Veg cover	Turbidity												
				Adult totals:		0			0			0			٦
(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			
	Pea	ak adult cou	nt for this p	ond in any one	e visit (by	torch, tra	ap or net):	0							

TBC in the final application following any grant of development consent: Southampton to London Pipeline (SLP) 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. Air temp Veg cover Turbidity (1) Date: Adult totals: 0 0 0 Veg cover (2) Date: Air temp Turbidity 0 0 0 Adult totals: Veg cover Turbidity (3) Date: Air temp 0 0 0 Adult totals: (4) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (5) Date: Veg cover Turbidity Air temp 0 0 0 Adult totals: (6) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (7) Date: Air temp Veg cover Turbidity 0 0 0 Adult totals: (8) Date: Air temp Veg cover Turbidity 0 0 Adult totals: 0 Peak adult count for this pond in any one visit (by torch, trap or net): Comments and constraints:

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

NB: This page prints in landscape format

Pond refe	rence (e.g. P	ond 32)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ıps used ir	n pond:				eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (b	y torch, tra	p or net):	C							-

Comments and constraints:

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

C4.3 Aquatic amphibian survey (conventional surveys- GCN results (cont.)

Pond refe	rence (e.g. F	ond 33)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ps used ir	n pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (by	torch, tra	ap or net):	0							
С	omments an	d constraints	:												

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

Pond re	ference (e	g. Po	ond 34)		Method:		Torch			Bottle-trap	o		Net		Egg search	Larvae
						Torch po	wer:		No. of tra	ps used in	pond:				eggs found?	larvae found?
No. of su	rvey visits	to thi	s pond:													(any method)
	urvey visits to this pond:				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(1) Date:	Air ter	np	Veg cover	Turbidity												
					Adult totals:		0			0			0			

(2) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(3) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(4) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(5) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(6) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(7) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
(8) Date:	Air temp	Veg cover	Turbidity										
				Adult totals:	0			()	()		
	Pea	ık adult coui	nt for this po	ond in any one	e visit (by to	orch, tra	p or net):	0					

Comments and constraints:

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

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

Pond refer	rence (e.g. F	ond 35)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	ower:		No. of traps used in pond:			1			eggs found?	larvae found?
No. of surv	o. of survey visits to this pond:										1				(any method)
'			Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1		
(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		
	Pea	k adult cour	nt for this po	nd in any one	e visit (by torch, tra	p or net):	0			

Comments and constraints:

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

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

Pond refe	rence (e.g. P	ond 16)		Method:		Torch			Bottle-tra	p		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ps used in	pond:				eggs found?	larvae found?
No. of surv	ey visits to th	is pond:													(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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		
	Pea	k adult cour	nt for this po	nd in any one	visit (by torch, tra	p or net):	0			
Co	mments and	constraints:								

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

NB: This page prints in landscape format

Pond refe	rence (e.g. F	ond 37)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				7	Torch po	wer:		No. of tra	ıps used in	pond:	1			eggs found?	larvae found?
No. of surv	ey visits to the	nis pond:									1				(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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			
	Pea	ak adult cour	nt for this p	ond in any on	e visit (b	y torch, tra	p or net):	C							

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

NB: This page prints in landscape format

Pond refe	rence (e.g. P	ond 38)		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
					Torch po	wer:		No. of tra	ıps used ir	n pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:									1				(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.	1	
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (b	y torch, tra	p or net):	0							

Comments and constraints:

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

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

Pond refe	rence (e.g. P	ond 39):		Method:		Torch			Bottle-tra	р		Net		Egg search	Larvae
				1	Torch po	wer:		No. of tra	ps used ir	n pond:	1			eggs found?	larvae found?
No. of surv	ey visits to th	nis pond:		Ī											(any method)
				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.		
(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			
	Pea	ak adult cou	nt for this p	ond in any on	e visit (by	torch, tra	ap or net):	0							
C	omments an	d constraints:	:												

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

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?
No. of survey visits to this pond:						(any method)

C - Survey - Pond 41-50

				Sex/life stage:	Male	Female	lmm.	Male	Female	lmm.	Male	Female	lmm.]	
(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			
	Pea	k adult cou	nt for this p	ond in any on	e visit (b	y torch, tra	ap or net):	0							