

## **AWE Aldermaston, Project Hydrus**

### **Great Crested Newt Method Statement**

Precautionary Method of Working for the Site Investigation and Enabling Works associated with the Project Hydrus

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# 1 Introduction

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- 1.1 RPS was commissioned to produce a precautionary method of working document for site investigations and enabling works associated with the of the proposed Project Hydrus redevelopment at AWE Aldermaston, Berkshire (Figure 1).
- 1.2 The Project Hydrus site is covered an area of approximately 8.5 hectares, the vast majority of which consists of acid grassland which in places can be considered flower-rich. This grassland has developed over aggregate and broken ground is effectively “brownfield” in nature. A small deciduous copse is located in the southeast corner of the site with a ground layer which is dominated by bramble. There are scattered trees over the remainder of the site and a veteran oak is located adjacent to the copse.
- 1.3 The site is bordered by areas of managed grassland interspersed with deciduous woodland and parkland trees.
- 1.4 Prior to construction of the proposed development and associated infrastructure, ground investigation and modifications to existing services are required to be carried out. The Project Hydrus site is located within 500m of the North Ponds which are known to home a medium population of great crested newts.

## 2 Legislation

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- 2.1 Great crested newts are fully protected under section 9 of the Wildlife and Countryside Act 1981 (as amended), through inclusion on Schedule 5. Great crested newts are also European protected species through their inclusion on Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994. Great crested newts are also a UK Biodiversity Action Plan (BAP) priority species. Great crested newts are widespread but rare and declining within the UK and the UK resource represents a major constituent of the global population.
- 2.2 Details of the protection afforded under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, &c.) Regulations 1994 are given in Appendix 1, along with a description of the qualifying criteria for UK BAP priority species.

### 3 Background Information

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- 3.1 The Project Hydrus site is located within 300m of the North Ponds as shown on Figure 2. These ponds are located within the AWE Aldermaston landownership boundary. The most recent survey of the North Ponds, conducted by Atkins Ltd in 2007, indicates the presence of a medium population of great crested newts.
- 3.2 It should also be noted that grass snake and slow worm have been recorded on the Project Hydrus site during the RPS presence/absence reptile survey in May, June and July 2009. These reptile species were recorded along the wet ditch and copse to the southeast of the site within the associated tall grassland and scrub habitat.

#### **Habitat Suitability**

- 3.3 The majority of the Project Hydrus site consists of acid grassland which in places can be considered flower-rich. This grassland has developed over aggregate and broken ground is effectively “brownfield” in nature. A running wet ditch and a small deciduous copse are located in the southeast corner of the site with a ground layer which is dominated by bramble. There are scattered trees over the remainder of the site and a veteran oak is located adjacent to the copse. The site is bordered by areas of managed grassland interspersed with deciduous woodland and parkland trees.
- 3.4 Enabling works and permitted development borehole works have already commenced on the project site with two large construction laydown areas present and a temporary access road has been installed throughout the length of the site. These enabling works have created areas of refugia for amphibians in terms of large rubble piles, spoil heaps, storage containers and scattered natural materials.
- 3.5 The majority of the grassland on the site is heavily maintained due to security requirements. However, the grassland is more suitable for herpetofauna along the wet ditch and copse to the southeast corner of the site. The majority of this suitable habitat is to be retained as part of the Project Hydrus redevelopment proposals.
- 3.6 Overall the habitat to be affected is small in area and largely comprises habitat considered to have limited potential to support great crested newts. This area represents only a very small proportion of the habitat within 300m of the North Ponds much of which is of much higher value for great crested newts, comprising woodland, rough grassland and scrub.

## 4 Working Methodology

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- 4.1 The Project Hydrus site investigations and remaining enabling works will be undertaken in two phases, subject to planning permission through 2009 to 2010.

### **Project Hydrus Phasing**

- 4.2 Appendix 2 shows the exact boundaries of the two phases of enabling works on the Project Hydrus site. Each phase is discussed in turn below. It is important to note that each bullet pointed task within each construction phase will need to be supervised by an ecologist. No site clearance works will be undertaken throughout the herpetofauna hibernation period which generally runs from late September to late March inclusive.

### Phase 1

- 4.3 The current programmed Phase 1 works relate to the following tasks:
- The installation of an amphibian exclusion fence which will be fixed to the existing security fence from the eastern end of the site along the northern and western boundary until it reaches the emergency access gate to the south of the site close to the proposed lagoon. This fence type will be as shown at Appendix 3 'Hydrus Type A Newt Fence'. The fence will then follow the western edge of disused access road to near its end, then cross the site to the south of the group of birch trees. The construction detail of this fence line will be as shown in Appendix 3 'Hydrus Type B Newt Fence';
  - The excavation of trial trenches and the installation of concrete pads for the purpose of impact testing;
  - Excavation of trenches to enable new and extended utilities to be connected into existing services;
  - The removal of existing spoil heaps;
  - Cutting of vegetation after completion of ecology surveys to enable setting out works to proceed; and
  - The removal of construction storage containers and materials from previous infrastructure projects.

- 4.4 All tasks outlined within Phase 1 will be undertaken from between July to September 2009 inclusive.

### Phase 2

- 4.5 The future Phase 2 works will include the following tasks:

- Relocation of newt exclusion fence and vegetation strip of wet ditch;
- Excavations to install a Sustainable Urban Drainage lagoon and swale; and
- Reduced levels dig to establish construction roads and laydown areas.

- 4.6 All Phase 2 tasks will commence in July 2010 and be completed by December 2010. Note that no amphibians will be moved in their hibernation period (October to March inclusive).

### **Proposed Working Methodology**

- 4.7 Given the limited extent of habitat to be lost and particularly in light of the considerable area of more suitable habitat closer to the North Ponds, it is considered that a European Protected Species (EPS) licence would not be required for the enabling works to take place at Project Hydrus. However, in line with current guidance from Natural England, which recommends all reasonable precautions be taken to minimise impacts on EPS, the following Precautionary Method of Working (PMW) is proposed:

### Phase 1 Works

- 4.8 All construction staff will be given a Tool Box Talk prior to the commencement of works. Staff will be made aware of the potential for great crested newts to be present, and will be advised on how to identify great crested newts or other amphibians that may be encountered. Staff will be made aware of the of the legal protection afforded to great crested newts, and what measures should be taken in the event that great crested newts are encountered at anytime during the works.
- 4.9 Amphibian exclusion fencing will be installed at the locations indicated on Figure 3 and two fence types shown at Appendix 3. The exclusion fence will be installed in accordance with the methodology provided at Appendix 4.
- 4.10 The separate working areas, including but not limited to those listed below will be subject to a full hand search and destructive clearance by the supervising ecologist:
- The temporary spoil piles to be used for the amphibian fence back fill;

- Removal of other spoil and aggregate piles across the Project Hydrus site;
  - Cutting of vegetation after completion of ecology surveys to enable setting out works to proceed;
  - Removal of construction materials from two existing laydown areas;
  - Removal of natural refugia on the site; and
  - Loose rubble and disturbed ground immediately to the south of the construction site, within the Golders compound.
- 4.11 Any amphibians (and reptiles) found will be removed from the works area by the licensed ecologist to suitable habitat behind the exclusion fence i.e. copse to the southeast of the site.
- 4.12 In the event that any great crested newts are found during the hand search and destructive clearance works shall not be allowed to commence without the permission of the supervising ecologist. Depending on the number of newts found it may be necessary to follow appropriate procedures to obtain an EPS licence before works can proceed further.
- 4.13 The supervising ecologist will operate a watching brief for the above operations. In the event that any great crested newts are found during the works, all works shall cease, and appropriate procedures to obtain an EPS licence shall be followed if required. No works shall be allowed to recommence until an EPS licence has been obtained from Natural England.
- 4.14 After the operation listed in 4.9 and 4.10 have been carried out, all site investigations and enabling works as outlined under the Phase 1 tasks can be carried out with the Licensed Ecologist visiting the project site at His/Her discretion.
- 4.15 The exclusion fencing should be inspected weekly by a suitably licensed ecologist to ensure that it remains intact and functional, with damage being repaired where necessary by the inspecting ecologist.

### Phase 2 Works

- 4.16 A suitable newt artificial hibernaculum will be constructed within the copse to the southeast of the Project Hydrus site prior to Phase 2 works commencing. The location of this will be agreed with the supervising ecologist. The hibernaculum should be constructed according to the design specification indicated in Appendix 5 and will use existing materials present within the copse.

- 4.17 Immediately prior to the commencement of phase 2 works, the exclusion fencing should be inspected and repaired where necessary by a suitably licensed ecologist.
- 4.18 The exclusion fencing will then be relocated in July 2010 to allow the construction of a lagoon and swale within the existing wet ditch area to the southeast of the Project Hydrus site.
- 4.19 The Phase 2 working area as shown in Appendix 3 will then be subjected to a hand search and destructive clearance, by a suitably licensed ecologist.
- 4.20 In the event that any great crested newts are found during the hand search works shall cease and appropriate procedures to obtain an EPS licence shall be followed if required. No works shall be allowed to recommence until an EPS licence has been obtained from Natural England.
- 4.21 Upon completion of the tasks within Phase 2, the exclusion fencing will remain in-situ for the duration of the Project Hydrus construction phase which is envisaged to be completed and fully operational by December 2015.
- 4.22 As with Phase 1, the exclusion fencing should be inspected weekly by a suitably licensed ecologist to ensure that it remains intact and functional, with damage being repaired where necessary by the inspecting ecologist.

### **Revisions**

- 4.23 Any task additions to either Phase 1 or 2 of the Project Hydrus site investigation and enabling works or revisions to the PMW should be discussed with an ecologist in advance of the works.

## References

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Highways Agency. 2001. *HA 98/01 Nature Conservation Advice in Relation to Amphibians*. In *Design Manual for Roads and Bridges. Volume 10, Section 4, Part 6*. Highways Agency.

The Conservation (Natural Habitats, &c.) Regulations. 1994. Statutory Instrument No. 2716. HMSO, London.

UK BAP. 2008. *UK Biodiversity Action Plan website*. UK BAP, accessed 26<sup>th</sup> November 2008 from <http://www.ukbap.org.uk/default.aspx>.

Wildlife and Countryside Act. 1981. HMSO, London.

English Nature, 2001. *Great crested newt mitigation guidelines*. Version: August 2001. English Nature, Peterborough.

## Figures

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## Figure 1

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**Site Location**

## Figure 2

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**Location of North Ponds**

## Figure 3

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### Location of Amphibian Fencing

## Appendices

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**Legislation and Other Designations Relating to Amphibians**

# Legislation

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## **The Conservation (Natural Habitats, &c.) Regulations 1994, Schedule 2**

Species listed in Schedule 2 of the regulations are known as European protected species. It is an offence to deliberately capture or kill a wild animal of a European protected species; to deliberately disturb any such animal; to deliberately take or destroy the eggs of such an animal; or to damage or destroy a breeding site or resting place of such an animal. This applies to all life stages of the animals.

## **Wildlife and Countryside Act 1981 (as amended), Schedule 5**

Section 9.1 of the Act makes it an offence to intentionally kill, injure or take any wild animal included in Schedule 5.

Section 9.2 makes it an offence to possess an animal or anything derived from an animal included on Schedule 5.

Section 9.4 makes it an offence to intentionally or recklessly damage or destroy, or obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection and to disturb any such animal while it is occupying a structure or places which it uses for that purpose.

Section 9.5 makes it an offence to sell or expose for sale an animal included in Schedule 5.

## **Other designations**

UK Biodiversity Action Plan (BAP) Priority Species

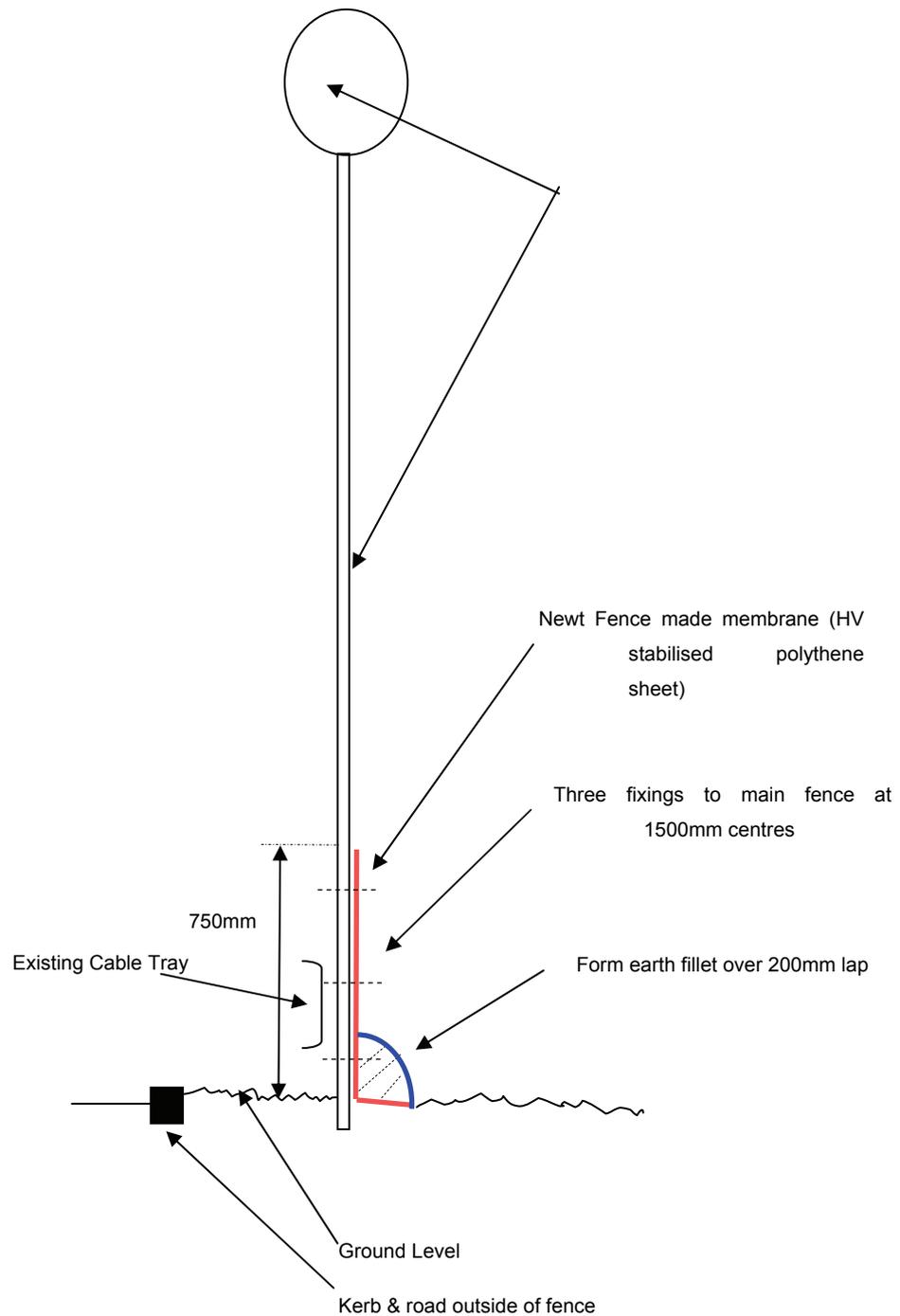
Species which qualify for one or more of the following are priority species:

- species which are globally threatened
- species which are rapidly declining in the UK, i.e. by more than 50% in the last 25 years

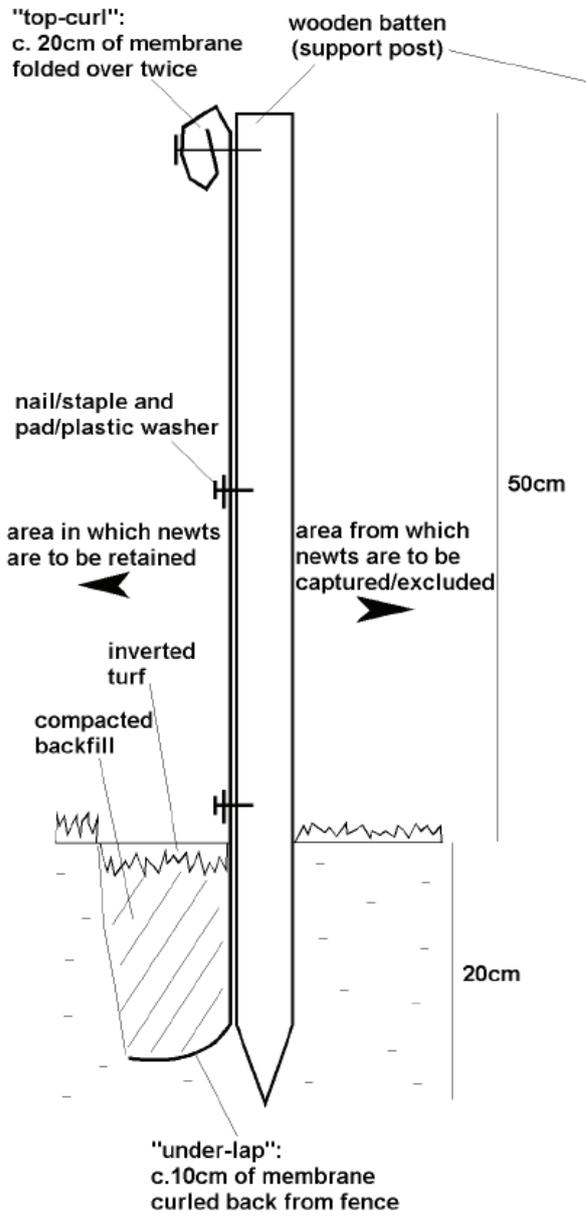
**Phasing of Hydrus Project Works**

**Amphibian Exclusion Fencing Type A and Type B**

# Hydrus Type "A" Newt Fence



# Hydrus Type "B" Newt Fence (Natural England 2001)



CROSS-SECTION

**Amphibian Fencing Installation Methodology**

## **Appendix 4 – Amphibian Exclusion Fencing Installation Methodology**

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The exclusion fence should be constructed according to Figure 3, Appendix 3 and the following methodology.

- 1.** Excavate a trench to the required depth (usually 200mm). It is important to use a machine that will cause minimum disturbance to the site and is able follow the line required. The spoil should be placed along the outside line of the trench.
- 2.** All excavation should be confined to the amenity grassland verge areas, avoiding adjacent scrub habitats.
- 3.** Drive in timber posts so that they are firm in the ground. Spacing of the posts should be a maximum of 1500mm between post centres. The line of the posts should be on the inside line of the trench.
- 4.** Roll out the polythene sheet along the outside line of the trench. Take up as much slack as possible. Attach the polythene sheet to the outside of the posts using nails, screws or staples through a nylon washer. The washer spreads the load over a wider area and prevents the polythene being easily torn off the stakes.
- 5.** Allow for a minimum 200mm of polythene in below ground level with an underlap of approximately 100mm angled outwards in the base of the trench. Along the top line, allow 150-200mm of polythene to create a double top roll. This has the dual effect of adding a lot of strength to the top fixing point, and creating an overlap which cannot be scaled by newts. The overall height of the newt fence should be 500mm above ground level.
- 6.** A minimum of three fixings per post with washers should be allowed for. The polythene should be free of major creases. Particular care should be taken at changes of slope.
- 7.** Backfill trench. Care should be taken where soils are heavy that large clumps of soil do not damage the sheet and pull the sheet off the post. The fill material should be carefully compacted around the fence to ensure that newts do not burrow underneath and to ensure that no cracks or crevices remain.

**Hibernaculum Specification**

## Appendix 5 – Hibernaculum Specification (Natural England 2001)

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