GREAT CRESTED NEWT ASSESSMENT

DAM GREEN, ROYAL FOREST OF DEAN
BRICK WORKS
CINDERFORD, GLOUCESTERSHIRE
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Contents Amendment Record

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<td>24/1/03</td>
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<tr>
<td>2</td>
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necessarily those of the Gloucestershire Wildlife Trust.

January 2003
GWM Ltd Chalkhill Environmental Consultants produced this report. The views expressed are those of the company and not necessarily those of the Gloucestershire Wildlife Trust.

January 2003
1. EXECUTIVE SUMMARY

1.1. Great Crested (Warty) Newts (Triturus cristatus) (GCN) are a material consideration for the extraction of clay from Dam Green, although the risk to and impact on GCN is considered low. Guidance on protective measures for GCN is given. The work will have to be carried out under the auspices of a licence from the Department of the Environment, Food & Rural Affairs (DEFRA).

1.2. A survey for GCN in all the surrounding waterbodies in March-June is recommended to confirm the conclusions of this assessment because it had to be based on a site visit in the winter and historical information on GCN in the vicinity of Dam Green. However, this constraint ought not to preclude permission to extract clay.

2. INTRODUCTION

2.1. This assessment has been carried out for Coleford Brick & Tile Co. and Tufnell Town & Country Planning. Coleford Brick & Tile Co. want to extend the period of the planning permission to extract clay from Dam Green (existing permission ends in April 2003). Gloucestershire County Council has requested that the site be checked for GCN.

2.2. It is understood that Coleford Brick and Tile Co. want to extract clay from approximately a third of the site in April 2003 (starting at the east end). The clay is to be extracted over a period of weeks and the hole filled with inert material. Thereafter clay will be extracted from the remaining site in two further blocks over the next six years (the timing and quantity depends upon the demand for bricks).

2.3. The location of the site, waterbodies and past records of GCN are shown in Figure 1. The habitat at the site is shown in Figure 2.
Figure 1: Dam Green, Cinderford

Location of Dam Green, ponds and great crested newt records.

Scale 1: 5000  Date: 26/1/03

Reproduced from Ordnance Survey 1:10000 Scale Raster with the permission of Her Majesty's Stationery Office, © Crown Copyright 2000 Gloucestershire Wildlife Management
Figure 2. Dam Green, Cinderford

Site habitat (approximate)

Scale: 1:250
Date: 29/1/03

- Spoil mound with bare ground and sparse vegetation
- Low scrub
- Compacted bare earth
- Earth bank
- Shafts
3. LEGISLATION & LICENSING

3.1. The Wildlife & Countryside Act 1981 (as amended) and the Habitats Regulations 1994 protect GCN. This national and European legislation gives protection to the beast from deliberate killing, injury, capture or disturbance. It also prohibits obstructing access by GCNs to areas they use for protection, resting and breeding as well as damage or destruction of these areas. GCN are a Biodiversity Action Plan Priority Species.

3.2. If the extraction of clay at Dam Green is likely to result in the disturbance or killing of GCN or damage to GCN habitat then they are a material consideration for the planning application. The local planning authority will consider attaching planning conditions to secure the protection of the GCN.

3.3. Also, if permission is granted, a licence derogating the legal protection afforded to GCN will need to be granted. DEFRA currently issues these licences. The issuing of licences is subject to three tests. Two of the tests are planning permission related. Therefore, licence applications can only be submitted after planning permission has been granted. The third test is that the action will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status.

3.4. A Method Statement that gives the measures proposed for the protection of GCN and their habitat has to accompany the licence application. The Statement needs to be drawn up by those carrying out the work (the planning applicant) and a suitably experienced ecologist. Licences are usually issued to the latter, who is then responsible for ensuring mitigation measures are carried out in accordance with the Method Statement. DEFRA requires up to 30 working days to make decisions on licence applications.

4. METHODOLOGY

4.1. The site was visited on 20th November 2002. A visual appraisal of the site and accessible surrounding habitat to at least 200 metres was carried Out. This was done by an experienced ecologist (Colin T Menendez) licensed by English Nature to disturb GCN (i.e. survey them).

4.2. This visit had to be a habitat assessment because GCN spend the winter dormant in refugia such as underground crevices, old tree stumps, under dead wood, amidst dense litter in woodland, rock piles, etc. GCN return to breeding ponds in the early spring and can then be surveyed between March and mid June.

4.3. Therefore, historical information on GCN (and other notable species) within a 1km radius was sought from the Gloucestershire Environmental Data Unit (GEDU). GEDU holds a large number of GCN records in the county but other records may exist. The data search records are appended to this report.
5. RESULTS

5.1. Dam Green was not eminently suitable habitat for GCN. It was predominantly bare ground. The east half was compacted, flat spoils, although there was a rainwater filled trench of approximately 10 metres length (considered likely to be thy at other times). A bank at the east end dropped down to an adjacent large, deep pond. This pond is a former clay pit. The west half of the site was more uneven and had been colonised by a sparse cover of vegetation (mostly grasses and some low scrub). This ground is reportedly spoil deposited in the early 1990s. The site was bordered on its north edge by a band of young trees along a stream and its south edge by a corridor of low, dense scrub next to a forest track. There was a mound of rubble and garden waste at the site’s entrance that could be used as refugia by GCN.

5.2. The surrounding land was to the north sparse, sheep grazed grassland on former spoil; to the west a large fishing lake from former mining; to the south woodland; and to the east a large pond and thereafter a stream (Old Engine Brook), pasture and industrial buildings.

5.3. The pond to the east had a fringe of emergent and submerged vegetation and is reportedly not stocked with fish. It appeared to be suitable for breeding GCN. The lake to the west is reportedly heavily stocked with carp. GCN might use the lake, but it is probably unlikely to support GCN without them being eaten by the fish. There was a line of approximately eight ponds in the woodland 100-650 metres south of Dam Green. These ponds looked suitable for GCN. Access was not possible to the pasture east of the site.

Local workers described a pond approximately 100 m from Dam Green at S0646 152 but no pond could be found during the site visit. This grid reference might be inaccurate and the record may be for the pond next to Dam Green or one of the ponds close by in the woodland. S0644 146 is 650 metres south of Dam Green.

6. CONCLUSIONS

6.1. GCN have been recorded recently 100 and 650 metres (or possibly at the adjacent pond) from the location of the clay extraction at Dam Green. GCN can occur on land up to 1.3 km from their breeding ponds but most remain within a few hundred metres depending upon the habitat. Therefore GCN are a material consideration for the extraction of the clay.

6.2. GCN prefer how dense ground cover, especially under a canopy of trees and scrub. The habitat at Dam Green is mostly bare ground and not eminently suitable for GCN. It is considered unlikely that GCN would choose to pass over it. Also, there is good fringing habitat for GCN to use as a corridor if they forage and disperse past the site. There is good terrestrial habitat for newts in the adjacent woodland and a corridor of open wet scrub alongside the nearby streams and tracks. Therefore, the likelihood of any impact by the clay extraction on GCN at Dam Green is considered low.

6.3. It is thought likely that GCN breed in the ponds in the woods south of Dam Green. The pond next to the site could also support breeding GCN (subject to fish numbers). The fishing lake to the west of the site could hold GCN but numbers would be low due to predation by the stocked fish.
Note: these assumptions are based upon a site visit in winter and the historical information on GCN for the area. Surveys in spring would be needed to confirm these conclusions.

To the best of our knowledge GCN will not habitually rest or breed on the land to be quarried for clay. The risk is to newts dispersing onto the site at night that either become temporarily trapped in the works or remain in the day within areas being worked wet. The period of greatest risk will be when they are dispersing to and from breeding ponds. However, this risk is limited, because GCN breeding in the adjacent pond are more likely to disperse towards the woodland or either side of the site along the corridors of low, dense wet habitat.

We do not have details of the post-extraction restoration plans for the site, but understand that it will be in-filled with inert material and possibly built upon. What is built or planted on the site will have a long-term impact on the newts. Appropriate planting and the creation of ponds (not stocked with fish) would benefit the newts. Hard landscaping with a drainage system that could trap and kill newts would have to be avoided. Drainage systems would have to be designed to be safe for them.

7. IMPLICATIONS

7.1. GCN will have to be prevented from entering the site during clay extraction. This could be broadly achieved either by:

- Carrying out the extraction when newts are least likely to pass over the site; or

- At other times by erecting temporary newt-proof fencing beforehand and carrying out the extraction in as short a time as possible.

7.2. GCN are least active on land between August and January (inclusive). Given the proximity of a potential breeding pond, a cautious approach is recommended with extraction being restricted to a time when GCN are dormant in November and December. Clay extraction at other times would necessitate a newt-proof fence. The next best time (with fencing etc) would be August to October and during January. Clay extraction between February and July is inadvisable, because this is when newts are most likely to disperse across the site, albeit that extraction could be carried out with precautionary fencing.

7.3. The fencing could be an angled one-way fence so newts can exit but not enter the site. It is not normally acceptable to rely solely on fencing and the setting of pit-fall traps and artificial refuges within the fencing will help remove any newts in the site. Such fencing and capture will not be necessary, or acceptable, during the winter. Some drift fencing with pit-fall traps etc. within the site will increase the capture efficiency. This is a precaution at Dam Green, because it is considered unlikely that there will be GCN on the site. In particular, on the east side of the site where the bare ground is compacted and featureless except for one short, isolated ditch. English Nature’s guidelines are for a minimum of 30 nights trapping. This time is considered unnecessary at the east half of the site. A precautionary five days trapping with no captures would probably be adequate, but this would need to be confirmed with English Nature. It is important that there is no unnecessary pit-fall trapping, because there is a risk for wildlife such as small mammals that can become trapped and die in the traps. The ditch (if wet) will have to be netted, trapped and then drained down at the same time. The pile of rubble at the entrance will have to be removed with care under the auspices of the DEFRA Licensee (see below). On the west half of the Site
there is more variation in the ground and some scrub so the same methods can be employed, but with greater capture effort. Here it would be beneficial to remove the vegetation in advance, thereby encouraging any newts to leave the site (note: not by using herbicides).

7.4. The clay extraction and the precautionary measures to prevent harm to GCN would have to be carried out under the auspices of a DEFRA licence. If the initial extraction has to be carried out in April 2003 then a DEFRA licence could be applied for on the existing planning permission. Thereafter based on the extension to the planning permission. However, it would be best to delay the clay extraction until after July when there will be least risk to newts.

7.5. As a minimum, the restoration of the site should not include features that could trap and kill GCN (standard drainage gully pots for example). Ideally, suitable habitat for GCN could be created.

7.6. These implications are based on the assessment that GCN are likely to be breeding in the pond next to the clay extraction. If a survey was carried out in March - May 2003 and GCN were not found then the above measures ought not to be necessary. The nearest other suitable ponds are approximately 100 metres to the south in the wood. Although relatively close to the extraction site, there is no obvious reason why newts should leave the good habitat in the woodland and go to Dam Green. The fishing lake is considered unlikely to support many, if any, GCN. However, it is recommended that all these waterbodies are surveyed.

8. OTHER SPECIES

8.1. Reptiles

8.1.1 Adders (Vipera berus), Common Lizards (Lacerta vivipara) and Slow-worms (Anguis fragilis) could all potentially occur in the habitat on the west half of the Dam Green. This half ought to be surveyed for reptiles before clay extraction occurs here. If reptiles are present, then measures will have to be taken to avoid harm to them. All are protected under the Wildlife & Countryside Act 1981 (as amended) from killing and injury.

8.1.2 The habitat on the east half of the site is considered unlikely to support reptiles and they are not considered a potential material consideration for the clay extraction in this east half.

8.2. Odonata

8.2.1 The data search revealed several species of odonata within the 1-km grid square for Dam Green. These records include Golden-ringed Dragonfly (Cordulegaster boltonii), Ruddy Darter (Sympetrum sanguineum) and Variable Damselfly (Coenagrion pulchellum). These species are enigmatic and not commonly seen. The latter two are Nationally Notable species. The Golden-ringed Dragonfly is a heathland species that breeds in streams and in runnels in bogs. The Ruddy Darter is more common in the south-east of England and in Gloucestershire is at the edge of its geographical range. It breeds in shallow well-vegetated waterbodies, often in woodland. The Variable Damselfly occurs in slow-flowing ponds and ditches and has a scattered distribution throughout Britain in small, restricted colonies. This is the only recorded site for this species in Gloucestershire on the GEDU data base.
8.2.2 It is important that there is no run-off of silt-laden water into the adjacent pond and stream during the clay extraction. Silt could affect the aquatic larvae of these species and other wildlife in the surrounding waterbodies.

8.3. Western Gorse

8.3.1 Western Gorse (Ulex gallii) was found at Dam Green. This species of gorse is generally common in the Forest of Dean, but it is confined to such habitat and is uncommon or absent in other parts of the county. It is a Biodiversity Action Plan 3 Species (Species of Conservation Concern).

8.3.2 Smaller plants on the site ought to be transplanted to the edge of the site before clay extraction. There are approximately a dozen such bushes on the south edge of the first half of the site being dug for clay that ought to be moved a couple of metres into the boundary. There are a greater number in the south-west portion of the site.

Colin T Menendez MIEEM, Jeremy Doe MIEEM
28-Jan-03
APPENDIX GEDU Data Search

31-Oct-02

Dear Jeremy

RE: Data Search at Royal FOD Brickworks

Thank you for consulting the Gloucestershire Environmental Data Unit on the above matter.

I have searched our database for records of Biodiversity Action Plan, rare or protected species. The records within your 1 km search area are listed in the attached report.

The enclosed species list merely reflects the information held on our database and does not represent a comprehensive list of rare or protected species for your search area. It is worth contacting John McLellan, the chairman of the Gloucestershire Naturalists Society (15 Charlton Road, Tetbury, Glos, GL8 8DX (01666 504757) to see what information they hold.

I hope that you find the enclosed information useful.

Yours sincerely

Julia Verity
Biodiversity Information Officer

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Status and Bap information from Recorder u species dictionary. Please note the above species list merely reflects the information held on our database and does not represent a comprehensive list of rare or protected species for your search area. Presence on this list does not indicate breeding status.