



Kiln Field, Tenterden

Nature Conservation Management Plan 2019 – 2023

Kent Wildlife Trust Consultancy



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1 INTRODUCTION

1.1 Background and Site History

This Nature Conservation Management Plan for Kiln Field has been prepared by Kent Wildlife Trust (KWT) on behalf of Tenterden Town Council. It provides a follow-on plan to the initial plan prepared by CPM environmental planning and design in 2001¹ and covering an initial ten year period.

The site was included as part of a wider planning application for the Kiln Field housing estate built to the north (Planning Application No. 00/00505/AS). It is now leased by Ashford Borough Council to Tenterden Town Council on a 25 year term.

This Nature Conservation Management Plan has been prepared based on KWT's knowledge of the site following a standard walkover survey to identify principle habitats and features of interest in spring 2019, and in conjunction with two reports previously produced by KWT in 2017² and 2018³ (see Appendix 1 for species list). The interest features of the 2001 Wildlife Management Plan prepared by CPM environmental planning and design (CPM environmental planning and design, 2001) have been fully taken into account in the management proposals put forward in the present plan. Additional species data were obtained from the *Wildlife and Plant Life Lists Provided by Jon Burnell* (see Appendix 2). KWT also utilised open source data, such as that provided by the British Geological Society⁴ for information relating to geology, and the Soilscales website⁵ for information relating to soils.

1.2 Past Management

Historical maps on Google Earth show that the site was an orchard in 1960, stretching west to the woodland stream. By the 1990s, scrub had started to develop to the east of the stream, where there is now secondary woodland. The boundary to the south appears to have remained in situ, as a hedgerow or woodland shaw.

The 2001 Wildlife Management Plan sets out key prescriptions regarding management of the balancing pond, the ancient woodland, the secondary woodland / scrubland areas, and the grassland. The balancing pond was created after 2003 and there is evidence of the construction of a reptile hibernaculum in the meadow area. However, it is unclear whether the site has been actively managed in the intervening period until the last 2-3 years.

More recently, Tenterden Town Council has undertaken the following management:

- Managing for the presence of the invasive species Himalayan balsam
- The meadow is cut twice a year in March and September; the cuttings are currently left in-situ
- An area of scrub on the southern edge of the pond was cut and cleared during the winter of 2018 / 2019
- An environmental DNA (eDNA) sampling survey for the presence of great crested newts was undertaken by KWT on behalf of Tenterden Town Council in June 2019; the report indicates that great crested newts are not present⁶ (see Appendix 3)
- Residents are required to manage the hedgerow to the east of the main field gate entrance on Abbott Way / Tilden Gill Road and have done so

¹ CPM environmental planning and design (2001) *Kiln Field, Tenterden, Kent. Wildlife Management Plan.*

² Kent Wildlife Trust Consultancy (2017) *Land off Abbott Way, Tenterden, Kent TN30 7BZ. Educational Suitability Assessment.*

³ Kent Wildlife Trust Consultancy (2018) *Land off Abbott Way, Tenterden, Kent TN30 7BZ. Wildlife Survey Report 2018.*

⁴ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

⁵ <http://www.landis.org.uk/soilscales/>

⁶ Environmental DNA tests only confirm the presence / absence of great crested newts in the 7-21 days prior to the samples being taken; caution should therefore still be exercised when habitat management works are undertaken

1.3 General Information / Location Map

Location: Kiln Field is located to the south east of Tenterden, to the south of Appledore Road B2080. It is only accessible by road through the housing estate leading to Abbott Way.

Map Reference: TQ891331 / **Postcode:** TN30 7BZ

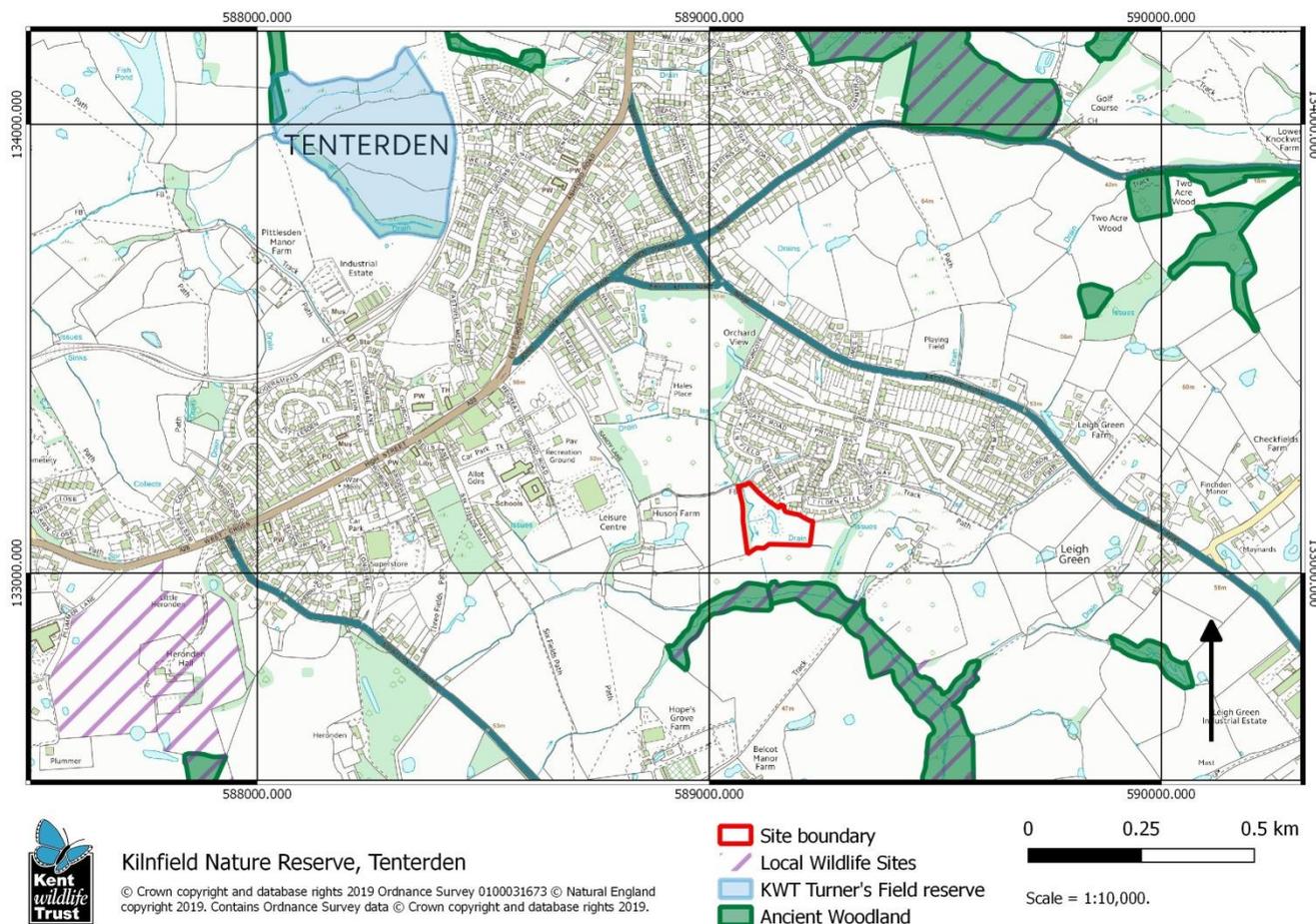


Figure 1: Kiln Field, Tenterden. Site Location Map.

Protection Status: No nature conservation designations, scheduled ancient monuments or other designated features. It has no statutory or non-statutory nature conservation designations and, as such, is not considered to be of national or county wildlife importance. However, the site is adjacent to the Ashenden Gill, Tenterden LWS AS05 (see Appendix 4) and, with appropriate management and enhancement measures, it will make an increasing contribution to the biodiversity of the wider designated area over time.

Area: 1.8 ha (4.5 acres)

Land tenure: Kiln Field is owned by Ashford Borough Council and is leased by Tenterden Town Council on a 25 year term.

Local Planning Authority: Ashford Borough Council

Consenting Authorities:

- Natural England (protected species)

- Ashford Borough Council (planning matters)
- The stream is not classified as an Environment Agency main river⁷ or an Internal Drainage Board (IDB) adopted or maintained watercourse⁸; however, consultation with the Environment Agency is considered advisable should any works be envisaged on this waterbody

Access:

- Public access

Management Infrastructure:

- Managed by lessee

1.4 Habitats

The information below is drawn from the results of the surveys and educational assessment undertaken by Kent Wildlife Trust (KWT, 2017; KWT, 2018) as well as from the site visit undertaken by KWT on 24th April 2019. For a map showing key habitats, please see section 2.4.

Table 1: Conservation features of Kiln Field.

Habitat	Status
Broadleaved semi-natural woodland with mature coppice with standards (Figure 2)	A section of broadleaved semi-natural woodland consisting mostly of mature trees stretches along the western boundary of the site and up to the woodland stream. The woodland comprises hornbeam and ash coppice with oak standards and presents a number of ancient woodland indicator species, including wood anemone <i>Anemone nemorosa</i> , yellow archangel <i>Lamiasstrum galeobdolon</i> , hornbeam <i>Carpinus betulus</i> , holly <i>Ilex aquifolium</i> , enchanter's nightshade <i>Circaea lutetiana</i> , Midland hawthorn <i>Crataegus laevigata</i> , primrose <i>Primula vulgaris</i> , and cherry <i>Prunus avium</i> . Features of interest include several veteran willow trees (<i>Salix spp.</i>) close to the stream, many presenting bat roost potential, and veteran coppice stools and old layed hornbeams delineating a boundary on the SW corner. The woodland is not on Natural England's Register of Ancient Semi-Natural Woodland (any area that's been wooded continuously since at least 1600 AD ⁹). However, the features described above, when considered alongside its presence on the 1870s historical maps, suggest that it may well be ancient. In addition, the woodland is only 0.19ha (0.46 acres) in size and the minimum size threshold for the Register is 0.25ha ¹⁰ .
Stream (Figure 3)	A stream enters the site from the north, flowing south and almost certainly feeding into the AS05 Ashenden Gill LWS stream, which is approximately 110m away. The stream includes in-stream woody debris, providing a valuable micro-habitat. The banks are fairly shallow in places, enabling access by members of the public, evidenced by the presence of one or two makeshift 'bridges'. Non-native species fringe-cup <i>Tellina grandiflora</i> and Himalayan balsam <i>Impatiens glandulifera</i> were recorded, which is a concern, as is fly-tipped material present in the stream and on the banks.
Secondary woodland (Figure 4)	Google Earth images suggest that this woodland was not present in 1990, therefore it is at most 30 years old. Very little understorey and ground flora were present on the southern section; however, more was present on the eastern section adjacent to the mature woodland, including ground ivy <i>Glechoma hederacea</i> , nettle <i>Urtica</i>

⁷ <https://environment.data.gov.uk/DefraDataDownload/?mapService=EA/StatutoryMainRiverMap&Mode=spatial>

⁸ https://www.ada.org.uk/member_type/idbs/

⁹ <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>

¹⁰ Natural England (May 2018) *Natural England Commissioned Report NECR248. Ancient Woodland Inventory Handbook for England.*

	<p><i>dioica</i>, male fern <i>Dryopteris filix-mas</i>, black bryony <i>Tamus communis</i>, lords-and-ladies <i>Arum maculatum</i>, lesser celandine <i>Ficaria verna</i>, wood anemone <i>Anemone nemorosa</i>. Some standing and fallen deadwood was present, but only in small amounts. Invasive species such as Himalayan balsam <i>Impatiens glandulifera</i> and Spiraea plants <i>Spiraea japonica</i> Goldflame are present. Some patches of scrub and bracken on the southern boundary have deterred access by people and thus have enabled ground flora such as early-purple orchids <i>Orchis mascula</i> (18 spikes recorded) to develop and / or to persist despite high recreational disturbance levels nearby. Unofficial bonfire sites are present here, suggesting high levels of recreational use by residents.</p>
Scrub¹¹ / grassland mosaic (Figure 5)	<p>The main grassland area is semi-improved grassland (between 8-15 species per square metre) and comprises a variety of species suggestive of neutral grassland, including common knapweed <i>Centaurea nigra</i>, fleabane <i>Pulicaria dysenterica</i>, lady's bedstraw <i>Galium verum</i>, common vetch <i>Vicia sativa</i>, common centaury <i>Centaureum erythraea</i>, hoary ragwort <i>Senecio erucifolius</i>, bird's-foot trefoil <i>Lotus corniculatus</i>, red fescue <i>Festuca rubra</i>, smooth meadow-grass <i>Poa pratensis</i> tare species <i>Vicia</i> spp., red clover <i>Trifolium pratense</i>. Other more common species included creeping buttercup <i>Ranunculus repens</i>, coarse grasses such as cock's-foot, and weeds such as creeping thistle <i>Cirsium arvense</i>. The grassland is managed through two cuts a year in March and September and there is evidence of rabbits on site. Cuttings are left in-situ. Areas of bramble and bracken are present on the boundaries adjacent to the secondary woodland and to the pond and hedgerows / line of trees. Hawthorn, ash and other saplings are present in the sward and in the taller grassland areas adjacent to the pond. There was evidence that a large patch of bramble had been cleared on the SE corner of the pond.</p>
Pond (Figure 6)	<p>The balancing pond was created as part of the housing development and is thus approximately 15 years old. The vegetation is dominated by yellow flag iris <i>Iris pseudacorus</i>, but includes other species such as common reed <i>Phragmites australis</i>, bulrush species <i>Typha</i> spp., least duckweed <i>Lemna minuta</i> (non-native), and water mint <i>Mentha aquatica</i>. Willow species <i>Salix</i> spp. were planted around the edge of the pond and are now providing considerable shade. The proportion of open water was estimated to be around 40%, but the pond is undoubtedly silting up, thereby impeding its function as a flood water storage mechanism. The pond was surveyed in 2014 as part of an adjacent planning application and is known to have held a medium population of great crested newts <i>Triturus cristatus</i>, smooth newts <i>Lissotriton vulgaris</i> and palmate newts <i>Lissotriton helveticus</i> (Corylus Ecology, October 2014). In addition, invertebrates found during these surveys include dragonfly and caddis fly larvae, common frog <i>Rana temporaria</i>, and great diving beetle <i>Dytiscus marginalis</i>. Vegetation surrounding the pond includes pendulous sedge <i>Carex pendula</i>, hard and soft rush <i>Juncus inflexus</i> and <i>Juncus effusus</i>, and cuckooflower <i>Cardamine pratensis</i>, all indicative of damper grassland. A great crested newt eDNA sampling survey carried out in June 2019 revealed that this species is no longer present¹² (see Appendix 2).</p>
Hedgerow / line of trees (Figure 7)	<p>There is a species-rich hedgerow¹³ along the northern boundary / housing estate, comprising species such as common hawthorn <i>Crataegus monogyna</i>, field maple <i>Acer campestre</i>, dogwood <i>Cornus sanguinea</i> and blackthorn <i>Prunus spinosa</i>. A</p>

¹¹ Native shrubs and bushes under 5 metres in height

¹² Environmental DNA tests only confirm the presence / absence of great crested newts in the 7-21 days prior to the samples being taken; caution should therefore still be exercised when habitat management works are undertaken.

¹³ For a definition of this Section 41 Habitat, please see <http://jncc.defra.gov.uk/page-5706>

	section of the hedge adjacent to the housing estate has been trimmed back / flailed. The hedge plants on the eastern boundary have been allowed to grow into a line of trees and scrub.
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Figure 2: An ancient ash coppice stool within the mature woodland.



Figure 3: Stream



Figure 4: Secondary woodland comprising standards with sparse understorey



Figure 5: Semi-improved grassland / scrub mosaic



Figure 6: Balancing pond with areas of open water and surrounded by willow



Figure 7: Hedgerow adjacent to housing development with evidence of management

1.5 Geology and Soils

The British Geological Survey website¹⁴ describes the bedrock geology as ‘Wadhurst Clay Formation - Mudstone’; there are no superficial deposits.

¹⁴ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

The Soilscales website¹⁵ has identified the soils as being ‘Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils’.

Owing to copyright restrictions it is not possible to include map extracts within this report: the geology and soil maps are available to view on the British Geological Survey and Soilscales websites.

1.6 Drainage and Hydrology

The balancing pond on site was created as part of the housing development to the north. An artificial channel (which is lined) was also created to the west of the pond to allow any overflow to feed into the stream in the woodland; it is assumed that this channel lies dry for most of the year.

1.7 Important Species

Table 2: Key to Conservation Status

Biodiversity Importance	Species
International (K)	<p>European Protected Species (EPS)</p> <p>European Protected Species (such as bats, great crested newts, otters and dormice) receive full protection under The Conservation of Species and Habitats Regulations 2010¹⁶. This makes it an absolute offence to:</p> <ul style="list-style-type: none"> deliberately capture, injure or kill any European Protected Species (EPS) to deliberately disturb them to damage or destroy a breeding site or resting place.
National (N)	<p>Red Data Book (RDB) species</p> <p>Species of Principal Importance in England listed under Section 41 of the Natural Environment and Rural Communities Act 2006 (updated in November 2008). Formerly UK Biodiversity Action Plan (BAP) Priority Species</p> <p>Species listed under Schedules 1, 5 (Section 9(1)) or 8 of the Wildlife and Countryside Act 1981 (as amended).</p> <p>'Protected Birds, Animals and Plants are listed in Schedules 1, 5 and 8 respectively of the Wildlife and Countryside Act. Schedule 1. The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally kill, injure or take any wild bird or their eggs or nests. Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young. Schedule 5. The Act makes it an offence (subject to exceptions) to intentionally kill, injure, or take, possess, or trade in any wild animal listed in Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals. Schedule 8. The Act makes it an offence (subject to exceptions) to pick, uproot, trade in, or possess (for the purposes of trade) any wild plant listed in Schedule 8, and prohibits the unauthorised intentional uprooting of such plants. There is a statutory five-yearly review of Schedules 5 and 8 (protected wild animals and plants respectively).</p>
Farmland Bird Index (FBI) ¹⁷	<p>This indicator shows farmland bird populations in England from 1970, with the most recent published figures (from 2014) indicating that the Index had fallen by 56% to a level less than half that of 1970.</p>

¹⁵ <http://www.landis.org.uk/soilscales/#>

¹⁶ <http://www.legislation.gov.uk/uksi/2010/490/contents/made>

¹⁷ <https://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/farming/whyfarming/whyfarming/fbi/>

R.S.P.B bird list ¹⁸	The UK's leading bird conservation organisations have worked together to review the status of birds in the UK, Channel Islands and Isle of Man. The bird species that breed or overwinter were assessed against a set of objective criteria to be placed on the Green, Amber or Red list – indicating an increasing level of conservation concern. The review used up-to-date information on the status of birds in the UK and elsewhere in their ranges, drawing on data collated through the UK's bird monitoring schemes. The quantitative criteria assessed the historical decline, trends in population and range, population size, localisation and international importance of each species as well as their global and European threat status.
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Table 3: Reptiles

Common Name	Scientific Name	Status in and around Kiln Field	K	N
Viviparous lizard	<i>Zootoca vivipara</i>	Recorded on southern and eastern boundary of site during Protected Species surveys of adjacent landholding (Corylus Ecology, October 2014).		*
Slow-worm	<i>Anguis fragilis</i>	Recorded on southern and eastern boundary of site during Protected Species surveys of adjacent landholding (Corylus Ecology, October 2014).		*
Grass snake	<i>Natrix natrix</i>	Recorded on southern and eastern boundary of site during Protected Species surveys of adjacent landholding (Corylus Ecology, October 2014).		*

Table 4: Amphibians

Common Name	Scientific Name	Status in and around Kiln Field	K	N
Great crested newt	<i>Triturus cristatus</i>	Recorded in pond during Protected Species surveys of adjacent landholding (Corylus Ecology, October 2014 pp.8). Absent when surveyed in 2019 (see Appendix 2).	*	*
Common toad	<i>Bufo bufo</i>	Recorded in pond during Protected Species surveys of adjacent landholding (Corylus Ecology, October 2014 pp.8).		*

Table 5: Birds

Common Name	Scientific Name	Status in and around Kiln Field	N	FBI	RSPB bird list
Bullfinch	<i>Pyrrhula pyrrhula subs. pileata</i>	Recorded by Jon Burnell (see Appendix 4.2)	*		Amber
Fieldfare	<i>Turdus pilaris</i>	Recorded by Jon Burnell (see Appendix 4.2)			Red
Goldfinch	<i>Carduelis carduelis</i>	Recorded by Jon Burnell (see Appendix 4.2)		*	
House martin	<i>Delicon urbicum</i>	Recorded by Jon Burnell (see Appendix 4.2)			Amber
House sparrow	<i>Passer domesticus</i>	Recorded by Jon Burnell (see Appendix 4.2)	*		Red
Jackdaw	<i>Corvus monedula</i>	Recorded by Jon Burnell (see Appendix 4.2)		*	
Kestrel	<i>Falco tinninulus</i>	Recorded by Jon Burnell (see Appendix 4.2)		*	Amber
Kingfisher	<i>Alcedo atthis</i>	Recorded by Jon Burnell (see Appendix 4.2)			Amber
Linnet	<i>Carduelis cannabina</i>	Recorded by Jon Burnell (see Appendix 4.2)	*	*	Red
Mistle thrush	<i>Turdus viscivorus</i>	Recorded by Jon Burnell (see Appendix 4.2)			Red
Nightingale	<i>Luscinia megarhynchos</i>	Recorded by Jon Burnell (see Appendix 4.2)			Red
Redwing	<i>Turdus iliacus</i>	Recorded by Jon Burnell (see Appendix 4.2)			Red
Reed bunting	<i>Emberiza schoeniclus</i>	Recorded by Jon Burnell (see Appendix 4.2)		*	Amber
Song thrush	<i>Turdus philomenos</i>	Recorded by Jon Burnell (see Appendix 4.2)	*		Red

¹⁸ http://www.rspb.org.uk/birds-and-wildlife/bird-and-wildlife-guides/bird-guide/status_explained.aspx

	<i>subsp. clarkei</i>				
Starling	<i>Sturnus vulgaris</i> <i>subsp. vulgaris</i>	Recorded by Jon Burnell (see Appendix 4.2)	*	*	Red
Swift	<i>Apus apus</i>	Recorded by Jon Burnell (see Appendix 4.2)			Amber
Tawny owl	<i>Strix aluco</i>	Recorded by Jon Burnell (see Appendix 4.2)			Amber
Whitethroat	<i>Sylvia communis</i>	Recorded by Jon Burnell (see Appendix 4.2)		*	
Willow warbler	<i>Phylloscopus trochilus</i>	Recorded by Jon Burnell (see Appendix 4.2)			Amber

Table 6: Invertebrates

Common Name	Scientific Name	Status in and around Kiln Field	K	N
Long horned bee	<i>Eucera longicornis</i>	Recorded by Jon Burnell (see Appendix 4.2)	*	
Small heath	<i>Coenonympha</i> <i>pamphilus</i>	Recorded by Jon Burnell (see Appendix 4.2)	*	

1.8 Constraints and Obligations

Site-specific constraints:

- Small size may limit ability to source contractors to undertake haymaking in the meadow, resulting in some years when cuttings are left on
- Small size and access issues limit potential for disposing of material from vegetation cutting/clearance or coppicing work on site
- Close proximity to housing estates is likely to result in high footfall, limiting the ability of some species to colonise new areas (for example, the early-purple orchids)
- Close proximity to housing estates / roads often results in increased anti-social activities such as fly-tipping, dog fouling and incursion of invasive ornamental plants
- Proposed development to east of site will further restrict the ability of the site to exist as part of and contribute to a wider ecological network

Invasive and non-natives:

- Conservation areas are susceptible to invasive and non-native species. Himalayan balsam, fringe-cup, ornamental garden plants Spiraea Goldflame and variegated yellow archangel, least duckweed, and marsh frog have all been confirmed on site. Provision for the removal of several of these species is made within the Management Prescriptions (see section 2.6). Monitoring for the presence of other invasive species, including ornamental shrubs such as snowberry, buddleia, cherry laurel and rhododendron, should be carried out during routine management works and surveys, with Tenterden Town Council developing appropriate protocols to deal with any recorded species as required.

Injurious Weeds:

- The Weeds Act 1959 requires landowners to take such action as may be necessary to prevent weeds including creeping thistle, spear thistle, curled dock, broadleaved dock and common ragwort, from spreading.

Climate Change:

- Predicted changes to the climate such as more pronounced spring and summer droughts may impact on species composition in decades to come. It is most likely to affect those at the southern edge of their range in Kent. This will need to be taken into account in future plans as it strengthens the need for connections to the wider landscape through the establishment and management of wildlife corridors.

Health and safety:

- There is a duty of care to all persons on the site. When carrying out work on the site, whether it is staff, volunteers or contractors, the Health and Safety at Work Act 1974 and the Management of Health and Safety at Work regulation of 1992 must be followed. Risk assessments should be carried out for each project and for the site. It should be demonstrable that systems are in place to reduce risk to a minimum.

Wildlife and Protected Species:

- The Wildlife and Countryside Act 1981 and the Countryside Rights of Way Act 2000 provide legal constraints on what can and cannot be done on wildlife sites.
- Certain habitats and species are protected through this legislation, in particular European Protected Species. European Protected Species (such as bats, great crested newts, otters and dormice) receive full protection under The Conservation of Species and Habitats Regulations 2010. This makes it an absolute offence to:
 - Deliberately capture, injure or kill any European Protected Species (EPS)
 - Deliberately disturb them
 - Damage or destroy a breeding site or resting place.
- In addition, the Wildlife and Countryside Act 1981 (as amended) makes it an offence to intentionally or recklessly disturb a EPS while it is occupying a structure or place which it uses for shelter or protection, or to obstruct access to any structure or place the species uses for shelter or protection. Although generally taken to apply to construction works and planning applications, these regulations equally can and do apply to habitat management and conservation works. Whilst it is generally recognised that such works may ultimately benefit protected species, it still remains an offence to deliberately disturb or to damage or destroy a breeding site or resting place regardless of whether the breeding or resting site is actually occupied. It is generally recognised that habitat management does benefit species conservation. Conservation and habitat management works are guided by best practice as provided by Natural England and The Forestry Commission. This guidance must be followed in all instances and it must be demonstrated that works have been carefully planned.
- The European Protected Species that may be affected by works in Kiln Field are as follows: bats, great crested newts, dormice and, potentially, otter.

2 MANAGEMENT PROPOSALS

The management proposals have been developed using information gained from previous reports by KWT (KWT, 2017 and KWT, 2018) and the site walkover undertaken on 24th April 2019, supplemented by information from the Wildlife Management Plan (CPM environmental planning and design, 2001).

2.1 Statement of Purpose

Establish Kiln Field as a nature conservation area, rich in biodiversity, providing opportunities for local communities and schools to deepen their connection with nature.

2.2 Management Objectives

- Provide a framework for the long-term management of Kiln Field for the benefit of wildlife
- Manage and improve the wetland habitats for amphibians, dragonflies and aquatic invertebrates and plants, while maintaining the function of the balancing pond
- Manage and enhance the broadleaved semi-natural woodland with mature trees and the associated stream, to provide habitat for birds, invertebrates and flora, and to ensure good ecological linkage with the nearby Ashenden Gill Local Wildlife Site
- Manage and enhance the grassland / scrub / hedgerow and secondary woodland for reptiles, invertebrates, birds and flora
- Monitor wildlife and the impact of management and other environmental influences upon the site
- Support where possible national and local ‘Species Recovery Programmes’ and ‘Biodiversity Species Action Plans’
- Increase the involvement of local people through a programme of community engagement
- Maintain estate in good order
- Review risk assessments annually, or as and when required

2.3 Rationale

The general description for the Low Weald Character Area: NCA121 is of small scale farm holdings enclosed by native hedgerows with mature hedgerow trees. The farmsteads are settlements linked by narrow winding lanes. The area is low lying, and has an abundance of field ponds, small streams and wet woodlands. The numerous ponds are considered to have been excavated for marl, a source of lime, which was added to the fields; they would also have been used to water livestock and some may date back to medieval times as the Low Weald was an important area for grazing. Some ponds may have additionally been dug to support the iron smelting industry which was important throughout the Low and High Weald areas. Traditional Wealden meadows would have been managed by haycuts followed by livestock grazing with sheep and cattle in the autumn / winter months. This regime would have been ideally suited to producing the wonderfully flower-rich meadows which are associated with the Weald.

As discussed in section 1.4, features identified in the broadleaved woodland with mature trees suggest that it may be ancient semi-natural woodland, even though it does not qualify for the purposes of Natural England’s Register of Ancient Semi-Natural Woodland. It is clearly shown on the 1870s maps and supports a number of ancient woodland indicator species. Coppicing does not appear to have taken place for several decades (some of the ‘poles on the coppiced stools would suggest coppicing last took place about 50 years ago). General guidance suggests that it is feasible to reinstate a coppice regime when the previous coppicing rotation took place sixty years ago or less. In many ways, reinstating coppicing at Kiln Field would be beneficial for biodiversity, as this would reinvigorate the coppiced

stools and create areas of open woodland which attract many different species. However, access is difficult to this section of the nature reserve. In addition, the woodland is under 0.5 acres: coppicing a smaller area than this would create issues of shading out young coppice regrowth. It might also have too strong a visual impact, given the small size of the site. A management prescription of 'non-intervention' is therefore suggested, aside from any tree safety works or control of invasives. The woodland stream is a feature of this site, and should be maintained as it is, including retaining any woody debris which can be perceived as 'blocking' the stream, as this is a natural process and can help to create little eddies / micro-habitats within the stream. The Himalayan balsam present is invasive and the seeds can spread downstream to the Ashenden Gill Local Wildlife Site via the woodland stream; it is therefore essential to control this species.

The secondary woodland appears to have developed since the 1990s, so is estimated to be approximately 30 years old. Some scrub and understorey have developed in parts of the woodland, mainly to the east of the stream. This is to be encouraged as this will provide a wider variety of micro-habitats and a buffer for the broadleaved woodland with mature trees from the more intensively used parts of the nature reserve. Parts of the secondary woodland to the south are getting more recreational use and the ground is bare. It may be appropriate to encourage some scrub regrowth on rotation to allow some regeneration and provide structural diversity. Coppicing some of the standards and leaving others to grow to provide high forest will also provide age and structural diversity. Some of the standards can also be left as standing deadwood or used to create habitat piles.

The balancing pond is becoming clogged with vegetation and also leaf litter from the adjacent willows. It will require periodic de-silting as well as clearing of emergent vegetation to prevent natural succession to scrub and to maintain its function as a balancing pond. Clearing the vegetation and coppicing the willows will help to maintain areas of open water, increasing the value of the habitat for species such as newts, dragonflies and kingfisher. Although the eDNA test (see Appendix 3) has shown a negative result for the presence of great crested newts, caution must always be exercised when carrying out habitat management works on the pond: this species will almost certainly still be present in the surrounding countryside, and there is no doubt that the habitat immediately surrounding the pond still provides excellent foraging and hibernating habitat. As there is still a chance that great crested newts may be found near the pond, no more than 25% of the terrestrial vegetation surrounding the pond should be cleared at any one time (see Appendix 5 for Method Statement for Great Crested Newt Protection during Pond Restoration). Up to 50% of the pond may be cleared in any one year (allowing for 3 years before any other section is cleared as this will enable wildlife to recover). It would be appropriate to create a small 'sacrificial area' in the meadow, which should be managed with a very short sward and devoid of any habitat piles for the months leading up to any winter works; this will discourage newts from using the area and provide a receptor area for any brash or silt resulting from the vegetation clearance / desilting works. The willow trees can be pollarded or coppiced on rotation, which will help to increase access to the pond for management works, as well as reducing leaf litter entering the waterbody and ensuring the pond does not revert to scrubland / woodland over time.

The grassland at Kiln Field appears to have been seeded with a wildflower mix and it is reasonably species diverse (8 to 15 species per square metre). It is managed by cutting twice a year in spring and autumn. However, the cuttings are currently left in-situ, which in time will result in a considerable loss of floristic diversity as the dead vegetation left on will add nutrients to the site and will also smother seedlings trying to grow. Lowland Meadow is a Section 41 habitat¹⁹ and thus it would be ideal to manage the meadow at Kiln Field as a traditional lowland meadow, by grazing with livestock and / or taking a hay cut. However, livestock grazing is unlikely to be a realistic option here due to its small

¹⁹ The UK list of priority habitats remains an important reference source and has been used to help draw up statutory lists of priority habitats which, in England, was required under [Section 41 of the Natural Environment and Rural Communities \(NERC\) Act 2016](http://jncc.defra.gov.uk/page-5706) (<http://jncc.defra.gov.uk/page-5706>)

size, urban location and the associated difficulty in finding a grazer. Taking hay cuts brings its own complications as contractors may be reluctant to take a cut from such a small site. The constraints are sufficient that it may be more appropriate, at this stage, to manage it as semi-improved grassland. This would ensure that the meadow retains some floristic diversity, but is also managed so as to provide varying sward heights including older, more tussocky grassland areas, thus providing habitat for a range of species such as small mammals, bumblebee nesting habitat and reptiles and amphibians. In time, and should the resources be available, it can be enhanced to provide species-rich grassland.

Scrub (native shrubs and bushes under 5 metres in height) is a much undervalued habitat. It can provide considerable wildlife value in the form of shelter, pollen and nectar and berries, and nesting habitat, for a wide range of species such as birds, reptiles, invertebrates and dormouse. Some small scale scrub clearance has taken place recently at Kiln Field. This will contribute to a programme of rotational cutting of the scrub across the site, which should ensure that it is kept under control whilst providing a habitat with a varied age structure. The scrub can also provide an excellent transitional habitat between the shorter grassland areas and taller woodland: 'woodland edge' habitat is known for providing particularly wildlife-rich habitat. Maintaining a variety of young through to mature scrub is important as this attracts different species (e.g. lesser whitethroat and nightingale prefer dense scrub) and will prevent natural succession to woodland.

The hedgerows / line of trees provide further variety in the habitats present at Kiln Field. The hedgerows are still relatively young. However, repeated cutting at the same height and width will result in a hedge with gaps at the base. This in turn will cause stress to the hedgerow trees and, long-term and cause problems if and when a decision is made to lay or coppice the hedges. The hedges need to be allowed to incrementally increase in height and become thick and dense; this will provide the best habitat for nesting birds and other species (see Appendix 6 for Diagram of Hedge Cutting Profile). Cutting them at the same height each year will also mean they produce fewer flowers and thus berries, pollen and nectar. The hedge plants on the eastern boundary are growing into a line of trees. Although lines of trees can be beneficial for species such as bats, there is considerable woodland habitat on site, so it is recommended that this line of trees is coppiced at the earliest opportunity to provide a hedge.

Key positive features:

- Management of areas of grassland with varied sward structure associated with hibernaculum will provide suitable habitat for flora, small mammals, reptiles, amphibians and invertebrates.
- Opportunity to enhance the mature and secondary woodland
- The scrub / grassland mosaic and hedgerows provides suitable habitat for reptiles, invertebrates and migratory and breeding birds
- The pond and woodland stream provide habitat for riparian / aquatic wildlife, including amphibians, flora, reptiles, invertebrates and birds
- Presence of veteran trees including willows along the woodland stream

2.4 Location of Key Features

A detailed description of the key features, habitats and access infrastructure present on this site are set out below, in order to aid and guide the future management (see Figure 8).

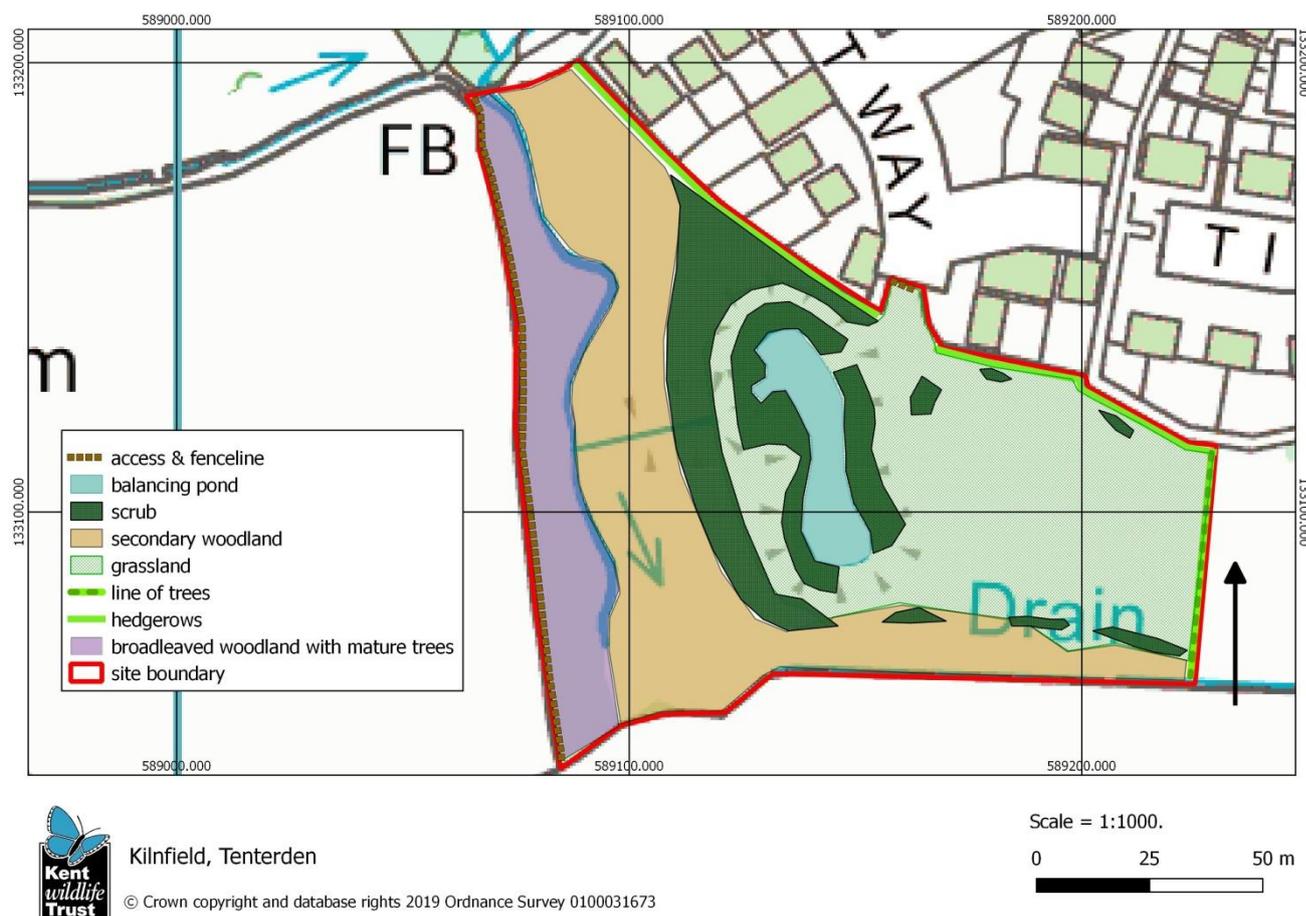


Figure 8: Kiln Field nature reserve.

2.5 Summary of Management Prescriptions

- Managing broadleaved semi-natural woodland with mature trees as non-intervention
- Thinning secondary woodland
- Undertaking a hazardous tree survey and implementing essential tree safety work
- Mowing semi-improved grassland to retain biodiversity interest, removing cuttings
- Removal of invasive species
- Desilting of pond
- Rotational coppicing of willows around pond
- Rotational cutting of hedgerows
- Laying / coppicing line of trees on eastern boundary
- Rotational cutting of scrub to maintain suitable habitat for reptiles and amphibians
- Maintenance of paths to facilitate access for management and recreational purposes
- Wildlife and habitat monitoring
- Update of risk assessments
- Clearing and removal of litter and fly-tipping
- Mending boundary fence to west of site

2.6 Detailed Management Prescriptions

2.6.1 Managing broadleaved semi-natural woodland with mature trees as non-intervention

Indicators of success: Broadleaved woodland with a healthy tree canopy and understorey cover, a wide variety of flora including ancient woodland indicator species (see Appendix 7), with standing and fallen deadwood, free from invasives and with relatively low levels of human disturbance. Stream free from pollutants and running freely except where woody debris is present.

1. Hazardous tree survey

Commission a survey at the earliest opportunity to identify trees which may present a hazard to members of the public. Any trees tagged for removal / felling should be inspected by an expert for bat roost potential prior to the work being carried out.

2. Control invasive species

Control Himalayan balsam and fringe-cup by hand-pulling before they spread further and ensure regular monitoring. Monitor for the presence of other non-native invasive species and for the presence of ash dieback *Chalara*.

2.6.2 Management of secondary woodland

Indicators of success: Broadleaved woodland with a diverse age structure, with understorey including bramble and honeysuckle, saplings, ground flora and standing and fallen deadwood, providing habitat for a variety of species groups including birds and invertebrates.

1. Thin standards

Thin 10-20% of standards. Retain 2-3 of the standards due to be thinned as standing deadwood. Use timber from remaining thinned standards to create habitat piles. Allow fallen deadwood to remain in situ. Retain ivy on trees. Retain 50% bramble / scrub. Monitor for non-native invasive species and for the presence of ash dieback *Chalara*.

2.6.3 Management of balancing pond

Indicators of success: Waterbody with a varied profile, wet all year, providing suitable habitat for great crested newts and invertebrates including dragonflies, with species-rich aquatic and riparian vegetation and at least 20% open water, low levels of pollution and free from invasive non-native species. Maintenance of the function of the water body as a balancing pond.

1. Maintain areas of open water

Clear accumulated silt and / or vegetation from pond on a 10 year rotation. Clear a maximum of 50% in any one year, leaving a minimum of 3 years between desilting/clearing works to allow the pond time to recover. Silt and other material excavated should be deposited close to the pond, in an area which has been deliberately managed as short grassland for the purpose (see Section 2.6.5). Monitor for potentially harmful non-native species; control if necessary.

2. Coppice willows

Coppice 1/3 of the willows every 3-4 years on a 10 year rotation, avoiding the bird nesting season. Use timber to create or add to existing habitat piles on site.

2.6.4 Management of scrub

Indicators of success: 10-20% scrub cover across site, with a diverse age structure, native shrubs and ground flora, providing a varied habitat for reptiles, birds, amphibians and invertebrates. The height of the scrub should not exceed 3m across the site.

1. Coppice blocks of scrub in rotation and remove invasive species

Cut 10% of scrub area, including bracken, every year on a 10 year rotation, in the autumn and winter months. Ensure 75% of scrub around pond is retained at any one time as this provides habitat for protected species such as great crested newts and discourages access to the pond (from a safety perspective). Consider strategic use of scrub areas to protect fragile sections of the reserve from trampling / disturbance, such as where the early-purple orchids are situated. Cut the stumps as low to the ground as reasonably practicable. Woody matter will be cut into short lengths or chipped using a mulcher or wood chipper and removed offsite. A small amount may be used to add to existing habitat piles. Monitor for invasive species such as buddleia and control if necessary by cutting and applying herbicide to the stumps. It is recommended that work should be undertaken between September and February to prevent disturbance to nesting birds.

2.6.5 Management of semi-improved grassland / meadow

Indicators of success: Grassland with a mix of herbs and grasses and few weeds, with areas of both tall / tussocky and short vegetation which can provide rich hunting grounds for barn owls, basking sites and / or refuges for reptiles and amphibians and small mammals, and an abundant source of pollen and nectar for invertebrates.

1. Implement regular mowing regime

Mow main meadow 1-2 times per year between August-March to leave as short a sward as reasonably practicable; remove cuttings where resources permit this. Cut 50% maximum margins adjacent to the secondary woodland and hedgerows every 2 years on rotation, to provide a tall, tussocky grassland which is favoured by barn owls, small mammals, over-wintering insects and for bumblebee nests.

2. Injurious Weed Control

Control notifiable weed species such as common ragwort and creeping thistle as necessary to meet legal responsibility. If cover of weeds (thistle species, ragwort, broad-leaved dock) is greater than 5%, consider physical control methods. Docks and thistles: consider topping before plants set seed. Ragwort: hand pull and remove before the plants set seed.

2.6.6 Management of hedgerows / lines of trees

Indicators of success: thick dense species-rich hedgerow, providing a rich supply of flowers and berries, with few gaps at the base between stems and with dense vegetation growth at the base.

1. Rotational cutting of hedgerows

Cut every 2 to 3 years; alternatively, cut only the top or one side each year. Ensure a clean, neat cut. Increase cutting height by approximately 10cm every 3 years. Remove any remaining tree guards. Cut as late in winter as ground conditions will permit, to ensure a good supply of berries for birds. Lay / coppice hedgerows on a 30 year rotation. Liaise with neighbouring homeowners with regard to their responsibility to ensure their section of hedgerow is trimmed appropriately.

2. Coppice line of trees on eastern boundary

Cut stools to ground level and allow to re-grow. Plant up any gaps with native species hedgeplants if necessary. Inspect for signs of rot / disease. Consider identifying / tagging one or two individual hedgeplants which can be allowed to become standards (full-size trees) within the hedgerow.

2.6.7 Maintain access for management purposes

Indicators of success: Present sections of fencing intact across site. Main access point in working order and access tracks across grassland and around pond maintained to enable management and monitoring work to be undertaken effectively.

1. Maintain and repair fence and field gate as required

Regular checking of condition of fencing infrastructure. Repair / replace damaged sections as required.

2. Maintain access tracks for management purposes

Ensure current access track around the western side of the pond remains clear to ensure contractors can access this section of the site.

2.6.8 Maintain estate in good order

Indicators of success: Site free from litter, fly-tipped material and anti-social behaviour, and safe to access for all.

1. Remove litter / fly-tipping

Clear and dispose of litter regularly.

2. Update risk assessments for site

All site risk assessments should be updated on an annual basis, or earlier as necessary.

2.6.9 Management of access and interpretation

Indicators of success: Site providing a wildlife-rich experience, free from litter, fly-tipped material and anti-social behaviour, safe and accessible to all members of the local community including schools.

1. Maintain access for recreational purposes

Maintain paths by cutting 2-3 times a year, as necessary. Where feasible, ensure the work is carried out on a warm day, when reptiles are likely to be more active and able to avoid machinery; walk the area to

be cut first. Well-maintained access paths will direct members of the public away from more sensitive areas, such as those with early-purple orchids or the pond edge.

2. Survey woodland areas for hazardous trees

Monitor woodland areas for hazardous trees following any major storm events. Carry out tree safety works as necessary.

3. Create pond dipping platform

4. Design and install interpretation panels

5. Consider applying for Local Nature Reserve status

2.6.10 Monitor the effects of management

Indicators of success: Comprehensive list of species on site, providing evidence that management for key species groups (flora, reptiles, amphibians, birds, mammals and invertebrates) is successful. No loss of key species such as early-purple orchid. Presence of great crested newts. New data where there are current gaps (notably bat species and small mammals).

1. Undertake programme of wildlife surveys and monitoring.

No formal programme is set out in this plan. However, local volunteers are involved and actively recording wildlife at Kiln Field (see Appendix 2). Where resources permit this, and where volunteers with the appropriate skills can be found, it would be beneficial to carry out additional surveys (e.g. for bats or small mammals or aquatic invertebrates).

2.6.11 Review management plan

1. Review the management plan after one year.

It is recommended that a review of the plan is carried out after a year, in order to ensure that management prescriptions are fully informed by the practicalities of management work on the ground.

2. Review the management plan every 5 years.

2.7 Summary of Management Prescriptions 2019-2023

Table 7: Summary Five Year Work Programme 2019 – 2023.

Objective	Action by	Timing	Priority
Management of broadleaved woodland with mature trees (2.6.1)			
1. Carry out hazardous trees survey	TTC and contractor	2019	High
2. Implement work as required by hazardous trees survey	TTC and contractor	As required. Check for bat roost potential before undertaking felling any works.	High
3. Remove non-native invasive species	TTC and contractor	2019. Clear all Himalayan balsam and fringe-cup. Monitor annually and control as necessary.	High
4. Retain standing and fallen deadwood and maintain in-stream woody debris	TTC and contractor		Medium
Management of secondary woodland (2.6.2)			
1. Thin standards	TTC and contractor	Thin 10-20% of standards. Retain 2-3 of the standards due to be thinned as standing deadwood. Use timber from remaining thinned standards to create habitat piles. Avoid bird nesting season (Mar-Aug).	Medium
Management of balancing pond (2.6.3)			
1. Pond clearance to retain function integrity	TTC and contractor	Clear 50% maximum of the pond in any one year, leaving a minimum of 3 years before clearing another section.	High
2. Rotational coppicing of willow	TTC and contractor	Every 3 years, coppice 30% maximum every 3-4 years on a 10 year rotation. Avoid bird nesting season (Mar-Aug).	High
Management of scrub (2.6.4)			
1. Coppice blocks of scrub in rotation, including scrub adjacent to pond.	TTC and contractor	Annually Sep-Feb: cut 10% in rotation, working on a 10 year rotation period. Ensure no more than 25% of scrub is cut around pond in any one year. Avoid bird nesting season (Mar-Aug).	High
Management of grassland (2.6.5)			
1. Implement regular mowing regime	TTC and contractor	Annually. Cut 1-2 times a year, between Sep-Feb; cut 50% margins around secondary woodland and hedgerows every 2 years on rotation. In years where pond work is anticipated, manage 'sacrificial area' close to pond where silt will be deposited as short grassland.	High
2. Injurious weed control (thistle/dock/ragwort)	TTC and contractor	Annually, between Jun and Sep, depending on species and flowering times	High
Maintain and enhance hedgerows / line of trees (2.6.6)			
1. Flail / trim hedgerow every 2-3 years	TTC and contractor	Cut on a 2-3 year rotation on alternative sides, between Sep-Feb	Medium

		(as late into the winter as feasible). Increase height of cut by 10cm every 3 years.	
2. Remove old tree guards	TTC and contractor	2019	High
3. Liaise with neighbouring homeowners regarding their responsibilities for hedgerow management	TTC	2019	Medium
4. Coppice line of trees on eastern boundary	TTC and contractor	Winter 2019/2020: Coppice line of trees to ensure this boundary develops as a biodiversity-rich hedgerow.	High
Maintain access for management purposes (2.6.7)			
1. Repair fencing in SW corner of site	TTC and contractor	2019	Medium
2. Monitor and repair site fencing and gates	TTC and contractor	As required	Medium
Maintain estate in good order (2.6.8)			
1. Carry out litterpicks	TTC and contractor	As required	Medium
2. Prepare and regularly update site risk assessments	TTC and contractor	Annually / as required	High
3. Empty litter bins	TTC and contractor	As required	High
4. Remove fly-tipped material on meadow and in stream	TTC and contractor	2019 / as required	High
Management of access and interpretation (2.6.9)			
1. Maintain access paths (keeping vegetation clear)	TTC and contractor	Annually, as required (Mar / Sep)	High
2. Survey woodland areas following major storm events to ensure any hazardous trees are inspected promptly and dealt with.	TTC and contractor	Following major storm events, as required	High
3. Create pond dipping platform	TTC and contractor	As resources permit	Low
4. Design and install interpretation panels	TTC and contractor	As resources permit	Medium
5. Consider applying for Local Nature Reserve status	TTC	As resources permit	Low
Monitor the effects of management (2.6.10)			
1. Specialist wildlife surveys (great crested newt eDNA test, bat roost survey)	TTC and volunteers	As required, prior to pond clearance work or felling of mature trees with bat roost potential.	High
2. Other wildlife surveys (birds, vascular plants, other)	TTC and volunteers	Annually (breeding birds: Mar-June; botanical surveys: April-July); as resources permit.	Low
Review management plan (2.6.11)			
1. Review management plan after 1 year	TTC	2020	High
2. Review management every 5 years	TTC	Every 5 years	Low

3 REFERENCES

Corylus Ecology (October 2014) *Land at Tilden Gill, Tenterden. Reptile and Great Crested Newt Report. For and on behalf of Cavendish & Gloucester Properties Limited.*

CPM environmental planning and design (2001) *Kiln Field, Tenterden, Kent. Wildlife Management Plan.*

Kent Wildlife Trust Consultancy (2017) *Land off Abbott Way, Tenterden, Kent TN30 7BZ. Educational Suitability Assessment.*

Kent Wildlife Trust Consultancy (2018) *Land off Abbott Way, Tenterden, Kent TN30 7BZ. Wildlife Survey Report 2018.*

4 APPENDICES

4.1 Plant Species list

Common Name	Scientific Name
Ash	<i>Fraxinus excelsior</i>
Beech	<i>Fagus sylvatica</i>
Birch species*	<i>Betula spp.</i>
Black bryony	<i>Tamus communis</i>
Blackthorn	<i>Prunus spinosa</i>
Bracken	<i>Pteridium aquilinum</i>
Bramble	<i>Rubus fruticosus</i> agg.
Broad-leaved dock	<i>Rumex obtusifolius</i>
Bulbous buttercup	<i>Ranunculus bulbosus</i>
Bulrush spp.	<i>Typha spp.</i>
Bush vetch	<i>Vicia sepium</i>
Cherry species	<i>Prunus spp.</i>
Cleavers	<i>Galium aparine</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common bird's-foot-trefoil	<i>Lotus corniculatus</i>
Common centaury**	<i>Centaurium erythraea</i>
Common fleabane**	<i>Pulicaria dysenterica</i>
Common hawthorn	<i>Crataegus monogyna</i>
Common knapweed	<i>Centaurea nigra</i>
Common mallow**	<i>Malva sylvestris</i>
Common ragwort	<i>Senecio jacobaea</i>
Common reed*	<i>Phragmites australis</i>
Common sorrel**	<i>Rumex acetosa</i>
Common vetch	<i>Vicia sativa</i>
Cow parsley**	<i>Anthriscus sylvestris</i>
Creeping buttercup**	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
Cuckooflower (Lady's smock)	<i>Cardamine pratensis</i>
Dandelion species	<i>Taraxacum officinale</i> agg.
Dogrose*	<i>Rosa canina</i>
Dogwood	<i>Cornus sanguinea</i>
Early purple orchid	<i>Orchis mascula</i>
Elder	<i>Sambucus nigra</i>
Enchanter's nightshade	<i>Circaea lutetiana</i>
English bluebell	<i>Hyacinthoides non-scripta</i>
False-brome (Wood false-brome)	<i>Brachypodium sylvaticum</i>
Fescue species	<i>Festuca spp.</i>
Field bindweed**	<i>Convolvulus arvensis</i>
Field maple	<i>Acer campestre</i>
Field-rose	<i>Rosa arvensis</i>
Field wood-rush	<i>Luzula campestris</i>
Fringe-cups	<i>Tellina grandiflora</i>
Garlic mustard	<i>Alliaria petiolata</i>
Germander speedwell	<i>Veronica chamaedrys</i>
Goldflame spiraea**	<i>Spiraea japonica</i> Goldflame

Common Name	Scientific Name
Greater stitchwort	<i>Stelaria holostea</i>
Great willowherb	<i>Epilobium hirsutum</i>
Ground-ivy	<i>Glechoma hederacea</i>
Guelder-rose	<i>Viburnum opulus</i>
Hairy bitter-cress	<i>Cardamine hirsuta</i>
Hard rush	<i>Juncus inflexus</i>
Hawthorn	<i>Crataegus laevigata</i> x <i>C. monogyna</i>
Herb-Robert	<i>Geranium robertianum</i>
Hedge bedstraw	<i>Galium mollugo</i>
Hedge bindweed**	<i>Calystegia sepium</i>
Himalayan balsam	<i>Impatiens glandulifera</i>
Hoary ragwort	<i>Senecio erucifolius</i>
Hogweed	<i>Heracleum sphondylium</i>
Holly	<i>Ilex aquifolium</i>
Honeysuckle	<i>Lonicera periclymenum</i>
Hornbeam	<i>Carpinus betulus</i>
Ivy	<i>Hedera helix</i>
Ivy-leaved speedwell	<i>Veronica hederifolia</i>
Lady's bedstraw**	<i>Galium verum</i>
Least duckweed	<i>Lemna minuta</i>
Lesser celandine	<i>Ficaria verna</i>
Lords-and-ladies	<i>Arum maculatum</i>
Bryophyte (mosses) species	
Male fern	<i>Dryopteris filix-mas</i>
Midland hawthorn	<i>Crataegus laevigata</i>
Nettle	<i>Urtica dioica</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Pedunculate oak	<i>Quercus robur</i>
Pendulous sedge	<i>Carex pendula</i>
Primrose	<i>Primula vulgaris</i>
Red clover	<i>Trifolium pratense</i>
Red currant	<i>Ribes rubrum</i>
Red fescue**	<i>Festuca rubra</i>
Rose family	<i>Rosa</i> spp.
Rose family	<i>Prunus</i> spp.
Rowan**	<i>Sorbus aucuparia</i>
Russian comfrey**	<i>Symphytum uplandicum</i>
Selfheal**	<i>Prunella vulgaris</i>
Soft rush	<i>Juncus effusus</i>
Sessile oak	<i>Quercus petraea</i>
Smooth meadow-grass**	<i>Poa pratensis</i>
Spotted medick	<i>Medicago arabica</i>
Sycamore**	<i>Acer pseudoplatanus</i>
Tare species	<i>Vicia</i> spp.
Thyme-leaved speedwell	<i>Veronica serpyllifolia</i>
Variegated yellow archangel	<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>
Vetch species	<i>Vicia</i> spp.
Water mint	<i>Mentha aquatica</i>
Wild cherry	<i>Prunus avium</i>
Wild privet**	<i>Ligustrum vulgare</i>

Common Name	Scientific Name
Wild strawberry	<i>Fragaria vesca</i>
Willow species	<i>Salix</i> spp.
Wood anemone	<i>Anemone nemorosa</i>
Wood avens	<i>Geum urbanum</i>
Yellow archangel	<i>Lamium galeobdolon</i>
Yellow flag iris	<i>Iris pseudacorus</i>
Yew	<i>Taxus baccata</i>

* additional species noted during Educational Suitability Assessment (KWT, 2017)

** additional species noted during Wildlife Survey Report (KWT, 2018)

4.2 Wildlife and Plant Life Lists Provided by Jon Burnell

BEES AND WASPS

Amblytelos armatorius
Andrena 5 plus sp
Apis mellifera
Bombus Hortorum
Bombus humilus
Bombus lapidaries
Bombus lucorum
Bombus Monticola
Bombus pascuroum
Bombus pratorum
Bombus sylvavum
Bombus Terrestris
Dolichovespula media
Eucera longicornis
Eumenes coarctatus
Megachille centuncularis
Megachille centuncularis
Nomada 2 Plus sp
Pimpla hypochondrica
Vespa crabro
Vespula vulgaris

BIRDS

Barn Owl
Blackbird
Blackcap
Blue Tit
Brambling
Bullfinch
Carrion Crow
Chaffinch
Chiffchaff
Coal Tit
Common Buzzard
Eurasian Jay
Fieldfare
Goldfinch
Great Spotted Woodpecker
Great Tit
Green Woodpecker
Grey Heron
Hobby
House Martin
House Sparrow
Jackdaw
Kestrel
Lesser Whitethroat
Kingfisher

Linnet
Little Egret
Longtailed Tit
Magpie
Mallard
Mistle Thrush
Moorhen
Nightingale
Nuthatch
Peregrine Falcon
Red Kite
Redpoll
Redwing
Reed Bunting
Song Thrush
Sparrowhawk
Starling
Swallow
Swift
Tawny Owl
Tree Creeper
Water Rail
Whitethroat
Willow Warbler

BUTTERFLIES

Brimstone
Brown Argus
Clouded Yellow
Comma
Common Blue Butterfly
Gatekeeper
Green-veined white
Holly Blue
Large White
Marbled White
Meadow Brown
Orange-tip
Painted Lady
Peacock
Purple Hairstreak
Red Admiral
Ringlet
Silver-washed Fritillary
Small Copper
Small Heath
Small Tortoiseshell
Small white
Speckled Wood
Small Skipper
Large Skipper
Essex Skipper

Clouded Yellow Helice
Small Copper (f. *Caeruleo-punctata*)

DRAGONFLIES

Common Blue Damselfly
Large Red Damselfly
Hairy Dragonfly
Common Darter
Ruddy Darter
Southern Hawher
Migrant Hawker
Broad-bodied Chaser
Four-spotted Chaser
Azure Damselfly
White-legged Damselfly
Golden-ringed Dragonfly
Lesser Emperor Dragonfly

HOVERFLIES

C. Bicinctum
Chrysotoxum cautum
E. Horticola
E. Latifasciata
E. Luniger
E. Nemorum
Episyrphus balteatus
Eristalis tenax
Eupeodes corolle
H. Hybridus
Helophilus pendulus
Melanostoma salare
Myathropa florea
P. albimanus
P. granditarsis
P. pelatus
Platycheirus rosarum
Rhingia campestris
Sphaerophoria interrupta
Syphus Sp?
Syrirta pipiens
V. Inanis
V. Inflata
V. Pellucens
Volucella bombylans
Xanthogramma pedissequum
Xylota segnis

REPTILES

Slow Worm
Grass Snake
Common Lizard

SPIDERS

Daddy-long Legs

Dysdera crocata

Garden Spider

Harvestman

Labyrinth

Orb weaver

Pisaura mirabilis

Wasp Spider

Wolf Spider

PLANTS IN THE POND

Yellow Flag Iris

Soft Rush

Water Mint

Reed Mace (*Typha Latifolia*)

Marsh marigold

PLANTS IN FIELD

Common Vetch

Mallow

Common Knapweed

Silver weed

Himalayan Balsam

Nipplewort

Hedge Mustard

Hogweed

Bluebell

Common Ragwort

Lords and Ladies

Wild Angelica

Ragged Robin

Scarlet Pimpernel

Stitchwort (common & Greater)

Primrose

Red & White Clover

Cowslip

Common Field Speedwell

Hop Trefoil

Common Birds-foot Trefoil

Field Scabious

Various Common Grasses

Stinging Nettles

4.3 Great Crested Newt Environmental DNA (eDNA) Survey Technical Report



Folio No: E5514
 Report No: 1
 Order No: 377
 Client: Kent Wildlife Trust
 Contact: Camilla Blackburn
 Contact Details: camilla.blackburn@kentwildlife.org.uk
 Date: 25/06/2019

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS

Date sample received at Laboratory: 14/06/2019
Date Reported: 25/06/2019
Matters Affecting Results: None

RESULTS

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
3242	Kiln Field Nature Reserve, Kent	TQ891 331	Pass	Pass	Pass	Negative	0

SUMMARY

When Great Crested Newts (GCN); *Triturus cristatus* inhabit a pond, they deposit traces of their DNA in the water as evidence of their presence. By sampling the water, we can analyse these small environmental DNA (eDNA) traces to confirm GCN habitation, or establish GCN absence.

The water samples detailed below were submitted for eDNA analysis to the protocol stated in DEFRA WC1067 (Latest Amendments). Details on the sample submission form were used as the unique sample identity.

RESULTS INTERPRETATION

Lab Sample No.- When a kit is made it is given a unique sample number. When the pond samples have been taken and the kit has been received back in to the laboratory, this sample number is tracked throughout the laboratory.

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Site Name- Information on the pond.

O/S Reference - Location/co-ordinates of pond.

SIC- Sample Integrity Check. Refers to quality of packaging, absence of tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to results errors. Inspection upon receipt of sample at the laboratory. To check if the Sample is of adequate integrity when received. Pass or Fail.

DC- Degradation Check. Analysis of the spiked DNA marker to see if there has been degradation of the kit since made in the laboratory to sampling to analysis. Pass or Fail.

IC- Inhibition Check- PCR inhibitors can cause false results. Inhibitors are analysed to check the quality of the result. Every effort is made to clean the sample pre-analysis however some inhibitors cannot be extracted. An unacceptable inhibition check will cause an indeterminate sample and must be sampled again.

Result- NEGATIVE means that GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as no evidence of GCN presence. POSITIVE means that GCN eDNA was found at or above the threshold level and the presence of GCN at this location at the time of sampling or in the recent past is confirmed. Positive or Negative.

Positive Replicates- To generate the results all of the tubes from each pond are combined to produce one eDNA extract. Then twelve separate analyses are undertaken. If one or more of these analyses are positive the pond is declared positive for the presence of GCN. It may be assumed that small fractions of positive analyses suggest low level presence but this cannot currently be used for population studies. In accordance with Natural England protocol, even a score of 1/12 is declared positive.

METHODOLOGY

The laboratory testing adheres to strict guidelines laid down in WC1067 Analytical and Methodological Development for Improved Surveillance of The Great Crested Newt, Version 1.1

The analysis is conducted in two phases. The sample first goes through an extraction process where all six tubes are pooled together to acquire as much eDNA as possible. The pooled sample is then tested via real time PCR (also called q-PCR). This process amplifies select part of DNA allowing it to be detected and measured in 'real time' as the analytical process develops. qPCR combines PCR amplification and detection into a single step. This eliminates the need to detect products using gel electrophoresis. With qPCR, fluorescent dyes specific to the target sequence are used to label PCR products during thermal cycling. The accumulation of fluorescent signals during the exponential phase of the reaction is measured for fast and objective data analysis. The point at which amplification begins (the Ct value) is an indicator of the quality of the sample. True positive controls, negatives and blanks as well as spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared so they act as additional quality control measures.

The primers used in this process are specific to a part of mitochondrial DNA only found in GCN ensuring no DNA from other species present in the water is amplified. The unique sequence appropriate for GCN analysis is quoted in DEFRA WC 1067 and means there should be no detection of closely related species. We have tested our system exhaustively to ensure this is the case in our laboratory. We can offer eDNA analysis for most other species including other newts.

Analysis of eDNA requires scrupulous attention to detail to prevent risk of contamination. Kits are manufactured by SureScreen Scientifics to strict quality procedures in a separate building and with separate staff, adopting best practice from WC1067 and WC1067 Appendix 5. Kits contain a 'spiked' DNA marker used as a quality control tracer (SureScreen patent pending) to ensure any DNA contained in the sampled water has not deteriorated in transit. Stages of the DNA analysis are also conducted in different buildings at our premises for added security.

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SureScreen Scientifics Ltd also participate in Natural England's proficiency testing scheme and we also carry out inter-laboratory checks on accuracy of results as part of our quality procedures.

Reported by: Sarah Evans

Approved by: Chris Troth

End Of Report

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4.4 AS05 Ashenden Gill, Tenterden Local Wildlife Site

AS05 – Ashenden Gill, Tenterden

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KENT LOCAL WILDLIFE SITE

Site:	Ashenden Gill, Tenterden	Site Ref. No:	AS05
LPA:	Ashford	Central Grid Ref:	TQ 897320
Parish:	Tenterden	Category:	Woodland, running water, standing water
Owner:	Private	Natural Area:	High Weald
Area:	48.03 ha	AONB:	High Weald
First notified:	1986	TPO:	No
Last revised:	January 2004		

REASON FOR DESIGNATION

The site consists of ancient woodland associated with a gill and with a species-rich ground flora.

RATIONALE FOR SITE BOUNDARY

The site includes the gill woodland itself, plus two small, associated woodlands at the southern end. These two woodlands are also ancient, and are separated from the gill woodland by a gap of no more than 100m. The site boundary has, for the most part, been drawn tightly around the boundaries of the woodland blocks, but does include a large, off-line pond at TQ 899315.

DESCRIPTION

A deeply wooded gill with a stream runs southwards from Tenterden and comprises ancient mixed broadleaved coppice with a varying density of pedunculate oak standards. Hornbeam and ash are the dominant coppice species, with hazel, Midland hawthorn, willow and aspen also occurring. Although many mature trees were blown over in the 1987 storm, many remain and the wood is regenerating strongly.

The ground flora is rich and varied, with bluebell *Hyacinthoides non-scripta*, wood anemone *Anemone nemorosa* and primrose *Primula vulgaris* the commonest constituents. Goldilocks buttercup *Ranunculus auricomus* is frequent. Other ancient woodland indicator plant species include early-purple orchid *Orchis mascula*, common-spotted orchid *Dactylorhiza fuchsii*, ramsons *Allium ursinum*, yellow archangel *Lamiastrum galeobdolon* and butcher's broom *Ruscus aculeatus*. Several species of fern, including male-fern *Dryopteris filix-mas* and hart's-tongue *Phyllitis scolopendrium*, occur with opposite-leaved golden-saxifrage *Chrysosplenium oppositifolium* and cuckooflower *Cardamine pratensis* along the main stream and tributary gills under alder. Slightly drier, acidic sandy soils are found on higher ground, where wood-sedge *Carex sylvatica* and wood sorrel *Oxalis acetosella* are frequent.

Two small woods, Coneyborough Wood and Hillyfield Wood, situated on the eastern side of the gill, also contain a varied ground flora. Alder and ash coppice occur on the lower ground with pendulous sedge *Carex pendula*, while hornbeam and hazel are present throughout. Chestnut coppice is found on the higher slopes. A good number of standard oaks occur throughout both woods, some very large and mature. There is no obvious management currently taking place, but there has been some coppicing of the chestnut in the past.



Kent Local Wildlife Site Schedule
© Kent Wildlife Trust

Issued November 2006

A large waterbody constructed at the southern end of the site appears to be managed as a flight pond and supports a range of common aquatic and emergent plant species, including broad-leaved pondweed *Potamogeton natans*, spiked water-milfoil *Myriophyllum spicatum* and bulrush *Typhus latifolia*.

The steep-sided gill woodland provides excellent invertebrate habitat.

Birds recorded recently include turtle dove ^{1,2,3,4,5}, song thrush ^{2,3,4,5}, nightingale ^{6,7}, willow warbler ^{7,8}, cuckoo ^{7,8} and green woodpecker ⁷. Shoveler ^{7,8} was recorded on the lake. The heronry which formerly existed in Coneyborough Wood was lost at the time of the 1987 storm.

There are managed pheasant rearing pens in the woodland.

Surrounded by farmland, which is mainly grazing meadow, this narrow gill remains unmanaged and undisturbed and should retain its interest for many years.

- ¹ Protected under Wildlife & Countryside Act 1981.
- ² Priority Species, UK Biodiversity Action Plan. 1998.
- ³ Red List. Birds of Conservation Concern 2002-2007.
- ⁴ Kent Red Data Book Status 2. A. Waite (Ed.) 2000.
- ⁵ Rapid Decline. BTO Breeding Birds Report. 2000.
- ⁶ Kent Red Data Book Status 3. A. Waite (Ed.) 2000.
- ⁷ Amber List. Birds of Conservation Concern 2002-2007.
- ⁸ Moderate Decline. BTO Breeding Birds Report. 2000.
- ^{*} Red Data Birds in Britain. NCC/RSPB. 1990.

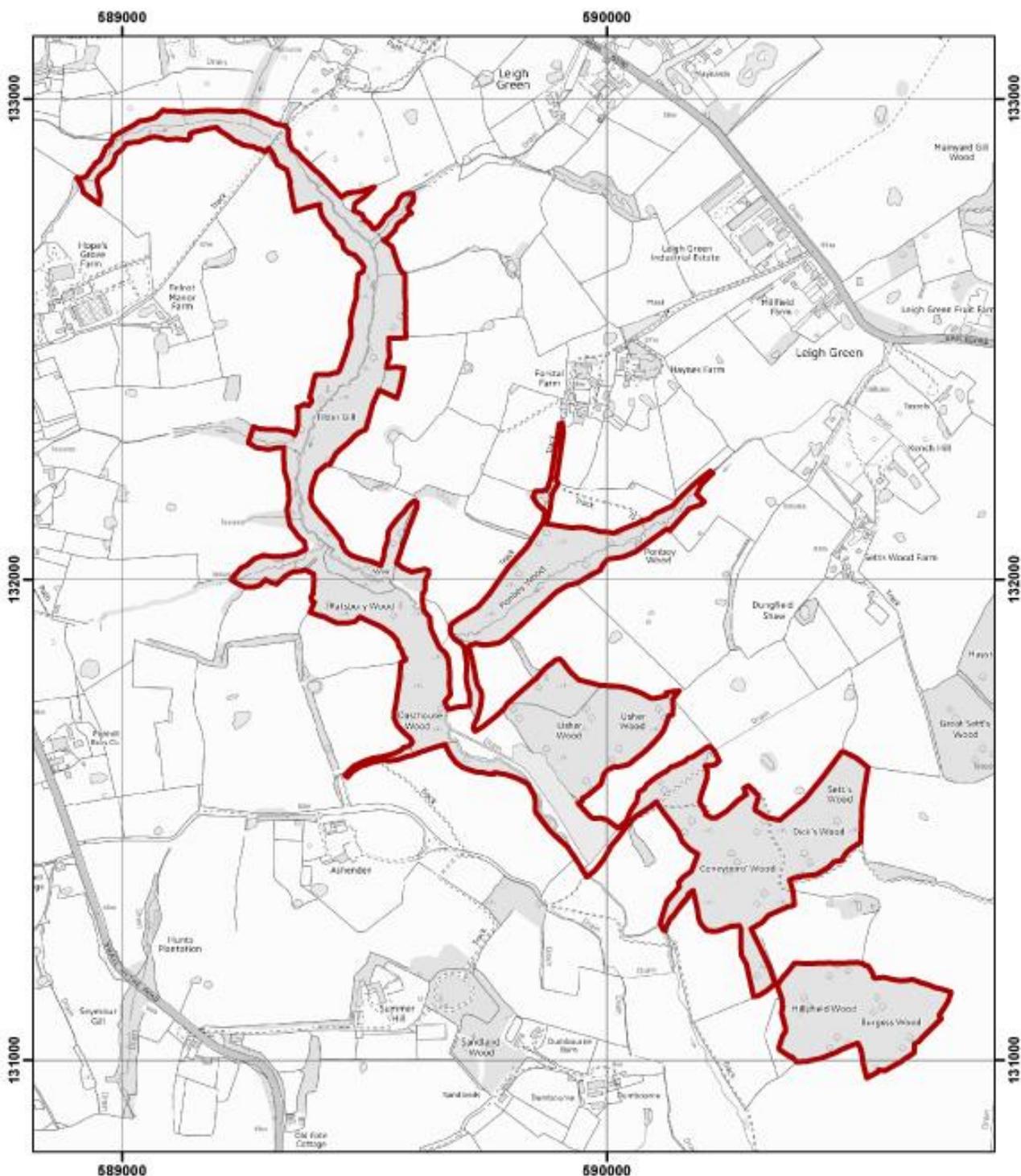


KENT LOCAL WILDLIFE SITE

Site: Ashenden Gill etc., Tenterden

Site Ref: AS05

Grid Ref: TQ899318



Kent Wildlife Trust 2016

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Approved: 2004



4.5 Method Statement for Protection of Great Crested Newts during Pond Restoration

Kent Wildlife Trust Method Statement for Great Crested Newt (*Triturus cristatus*) protection during pond restoration works at Kiln Field, Tenterden.

Context

The Kiln Field Nature Conservation Management Plan 2019-2023 written by Kent Wildlife Trust (KWT, 2019) and commissioned by Tenterden Town Council identifies survey data from an adjacent planning application¹ indicating the presence of great crested newts within the pond at Kiln Field. As the balancing pond will periodically require clearance work which could impact on this protected species², and management works have been recommended for winter 2019/2020, a great crested newt environmental DNA (eDNA) survey was carried out in June 2019, the results of which were negative. However, caution should still be exercised when habitat management works are undertaken as there are ponds within 250m of the Kiln Field waterbody, and habitats present on site remain suitable for this species.

Why is a method statement required?

The Biodiversity Action Plan for great crested newts states that the current factors causing a decline in newt population are: '*Loss of suitable breeding ponds caused by water table reduction, in-filling for development, farming, waste disposal, neglect or fish stocking and the degradation, loss and fragmentation of terrestrial habitats.*' The protection afforded to this species by UK and EU laws is designed to ensure that populations of great crested newts are not harmed and incrementally reduced by individual developments. More specifically, this legislation signifies that it is illegal to:

- intentionally kill, injure or capture great crested newts;
- intentionally disturb great crested newts;
- intentionally take or destroy the eggs of great crested newts;
- deliberately interfere with places used for shelter or protection used by great crested newts or obstruct access to places of protection or shelter;
- damage or destroy a breeding site or resting place of great crested newts;
- trade in, possess or transport a great crested newt or any part of a great crested newt, unless acquired legally.

However, the legislation is difficult to interpret for organisations who seek to conserve and improve conditions for this species, for which activities such as pond restoration carry inherent risks of disturbing, killing and injuring newts and effectively breaking the law.

This method statement aims to present an easily interpreted set of guidelines for the Council and its contractors to follow when undertaking conservation work on the pond at Kiln Field, and in order to ensure all risk to great crested newts is minimised.

¹ Corylus Ecology (2014) *Land at Tilden Gill. Reptile and Great Crested Newt Report*. For and on behalf of Cavendish & Gloucester Properties Limited.

² Great crested newts are protected by the following legislation:

- Bern Convention 1979: Appendix III
- Wildlife & Countryside Act (as Amended) 1981: Schedule 5
- EC Habitats Directive 1992: Annex II and IV
- Conservation (Natural Habitats etc.) Regulations 2010: Schedule 2
- Countryside Rights of Way Act 2000 (CROW 2000)
- Natural Environment and Rural Communities Act 2006 (updated in November 2008): Section 41 - Species of Principal Importance in England (formerly UK Biodiversity Action Plan (BAP) Priority Species)

The need for ponds for great crested newt population survival

Ponds are essential for great crested newt survival as they are used for the breeding, egg laying and development stage of the great crested newt life cycle. All ponds are successional habitats which naturally change over time, becoming increasingly silted and dominated by vegetation. According to the Freshwater Habitats Trust, 50% of the UK's ponds were lost in the last century and, of those that remain, 80% are in a poor state³. This reduction is partly due to infilling of ponds but also largely due to natural succession of ponds and a lack of new pond creation due to changes in agriculture and industries which no longer require water bodies. Consequently, these days, ponds are usually constructed for conservation, recreational or aesthetic reasons.

KWT method statement for water body restoration

Most great crested newts have usually left their breeding pond(s) by the end of August; however some may even choose to overwinter in pond sediment and debris. They will then spend a period of time foraging and resting in terrestrial habitats. Most animals are dormant by the end of November⁴. For this reason, it is considered best practice to carry out work in ponds whilst newts are hibernating on land (November-February). However, in practice, soil conditions can dictate when it is practical to carry out desilting works. Carrying out works in late summer to October may ensure that there are lower water levels (thus removing the need to pump out water) and ground conditions are not yet too wet.

During the months leading up to the desilting works (late summer onwards), ensure an area of the grassland to the east of the pond is kept mown short (maximum 10-15cm); this area must be sufficiently set back from the pond margins that any silt / spoil will not wash back into the pond during heavy rain. The area set aside should be sufficient to hold the amount of silt anticipated from the desilting works. Remove any lying deadwood or rubble which could act as a refuge for newts is removed. This will deter newts from using the area.

During the autumn / winter months (September-February), remove silt / debris from the pond with a dumper truck and deposit on the aforementioned area of close mown grassland. Minimise the number of trips needed and the number of routes used by the machinery to avoid unnecessary disturbance of potential great crested newt terrestrial habitat. Allow rainwater to re-fill the pond. Stop and seek advice from Natural England or a suitably licenced great crested newt ecologist if any evidence of great crested newts is found.

If for any reason the works cannot be undertaken during the autumn / winter months (for example, due to unfavourable ground conditions), then further advice should be sought from a suitably licenced great crested newt ecologist as it may be necessary to apply for a conservation licence.

If there are significant delays to the works (a year or more) then it may be necessary to carry out another great crested newt eDNA sampling survey by a suitably qualified ecologist to check for the presence of great crested newts.

³ <https://freshwaterhabitats.org.uk/habitats/pond/>

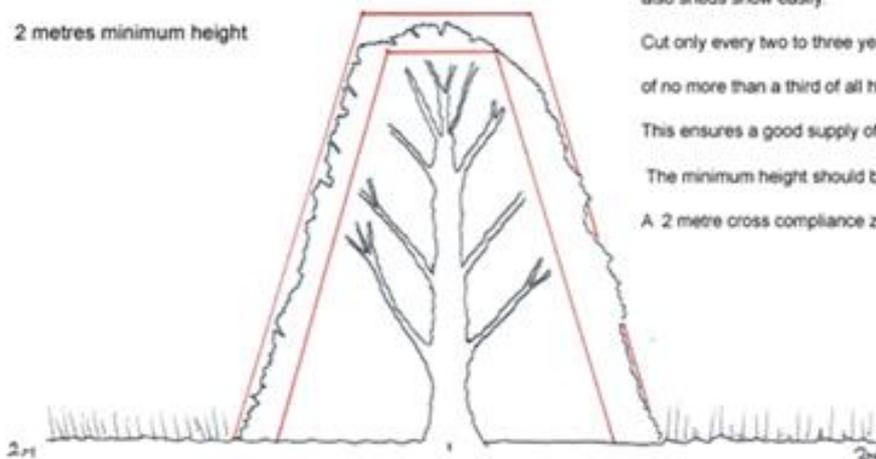
⁴ Froglife (2001) *Great Crested Newt Conservation handbook*. Published by Froglife.

If a decision is made to move spoil off site, then it may be necessary to gain consents for moving spoil from the Environment Agency. Under these circumstances, it would not be necessary to prepare a grassland area on site as a receptor site for the spoil.

4.6 Diagram of Hedge Cutting Profile

"A" shaped Hedge Cutting Profile

2 metres minimum height



Hedges should be cut to a rounded or flat A shape.

This helps them to thicken out at the base instead of becoming "leggy" providing a good thick hedge that also sheds snow easily.

Cut only every two to three years, on a rotation of no more than a third of all hedges in any one year.

This ensures a good supply of fruits for birds to eat.

The minimum height should be at least 2 metres.

A 2 metre cross compliance zone should be maintained.

4.7 Positive Indicator Species of Ancient Woodland

Species	English name	Tick for presence and leave blank for absence
<i>Acer campestre</i>	Field maple	
<i>Adoxa moschatellina</i>	Moschatel	
<i>Agrimonia procera</i>	Fragrant agrimony	
<i>Allium ursinum</i>	Ramsons	
<i>Alnus glutinosa</i>	Alder	
<i>Anemone nemorosa</i>	Wood anemone	
<i>Aquilegia vulgaris</i>	Columbine	
<i>Asplenium scolopendrium</i>	Hart's-tongue fern	
<i>Betonica officinalis</i>	Betony	
<i>Blechnum spicant</i>	Hard fern	
<i>Bromopsis benekenii</i>	Lesser hairy-brome	
<i>Bromopsis ramosus</i>	Hairy-brome	
<i>Calamagrostis epigejos</i>	Wood small reed	
<i>Campanula trachelium</i>	Nettle-leaved bellflower	
<i>Cardamine bulbifera</i>	Coral root bittercress	
<i>Cardamine impatiens</i>	Narrow-leaved bittercress	
<i>Carex laevigata</i>	Smooth-stalked sedge	
<i>Carex leporina</i>	Oval sedge	
<i>Carex pallescens</i>	Pale sedge	
<i>Carex pendula</i>	Pendulous sedge	
<i>Carex remota</i>	Remote sedge	
<i>Carex strigosa</i>	Thin-spiked wood sedge	
<i>Carex sylvatica</i>	Wood sedge	
<i>Carpinus betulus</i>	Hornbeam	
<i>Centaurium pulchellum</i>	Lesser centaury	
<i>Centunculus minimus</i>	Chaffweed	
<i>Cephalanthera longifolia</i>	Narrow-leaved Helleborine	
<i>Ceratocarpus claviculata</i>	Climbing corydalis	
<i>Chrysosplenium alternifolium</i>	Alternate-leaved golden saxifrage	
<i>Chrysosplenium oppositifolium</i>	Opposite-leaved golden saxifrage	
<i>Circaea lutetiana</i>	Enchanters nightshade	
<i>Conopodium majus</i>	Pignut	
<i>Convallaria majalis</i>	Lily of the valley	
<i>Crataegus laevigata</i>	Midland hawthorn	
<i>Daphne laureola</i>	Spurge laurel	
<i>Dipsacus pilosus</i>	Small teasel	
<i>Dryopteris aemula</i>	Hay-scented buckler fern	
<i>Dryopteris affinis</i>	Scaly male fern	
<i>Elymus caninus</i>	Bearded couch	
<i>Epipactis helleborine</i>	Broad-leaved helleborine	
<i>Epipactis leptochila</i>	Narrow-lipped helleborine	
<i>Epipactis phyllanthes</i>	Green-flowered helleborine	
<i>Epipactis purpurata</i>	Purple helleborine	
<i>Equisetum sylvaticum</i>	Wood horsetail	
<i>Euonymus europaeus</i>	Spindle	
<i>Euphorbia amygdaloides</i>	Wood spurge	
<i>Fallopia dumetorum</i>	Copse-bindweed	
<i>Frangula alnus</i>	Alder buckthorn	
<i>Galium odratum</i>	Woodruff	
<i>Gnaphalium sylvaticum</i>	Heath cudweed	
<i>Helleborus foetidus</i>	Stinking hellebore	
<i>Helleborus viridis</i>	Green hellebore	
<i>Holcus mollis</i>	Creeping soft grass	
<i>Hypericum androsaemum</i>	Tutsan	

<i>Hypericum maculatum</i>	Imperforate St. John's Wort	
<i>Hypericum montanum</i>	Pale St. John's Wort	
<i>Hypopitys monotropa</i>	Yellow bird's-nest	
<i>Ilex aquifolium</i>	Holly	
<i>Iris foetidissima</i>	Stinking iris	
<i>Lamiastrum galeobdolon</i>	Yellow archangel	
<i>Lathraea squamaria</i>	Toothwort	
<i>Lathyrus sylvestris</i>	Narrow-leaved everlasting pea	
<i>Luzula forsteri</i>	Southern wood-rush	
<i>Luzula pilosa</i>	Hairy wood-rush	
<i>Luzula sylvatica</i>	Great wood-rush	
<i>Lysimachia nemorum</i>	Yellow pimpernel	
<i>Malus sylvestris</i>	Crab apple	
<i>Melampyrum pratense</i>	Cow wheat	
<i>Melica uniflora</i>	Wood melick	
<i>Milium effusum</i>	Wood millet	
<i>Narcissus pseudonarcissus</i>	Wild daffodil	
<i>Neottia nidus-avis</i>	Bird's-nest orchid	
<i>Ophrys insectifera</i>	Fly orchid	
<i>Orchis mascula</i>	Early purple orchid	
<i>Orchis purpurea</i>	Lady orchid	
<i>Oreopteris limbosperma</i>	Lemon-scented fern	
<i>Oxalis acetosella</i>	Wood sorrel	
<i>Paris quadrifolia</i>	Herb paris	
<i>Pimpinella major</i>	Greater burnet saxifrage	
<i>Platanthera bifolia</i>	Lesser butterfly-orchid	
<i>Platanthera chlorantha</i>	Greater butterfly-orchid	
<i>Poa nemoralis</i>	Wood meadow grass	
<i>Polygonatum multiflorum</i>	Common Solomon's-seal	
<i>Polypodium vulgare</i>	Common polypody	
<i>Polystichum aculeatum</i>	Hard shield-fern	
<i>Polyystichum setiferum</i>	Soft shield-fern	
<i>Populus tremula</i>	Aspen	
<i>Primula vulgaris</i>	Primrose	
<i>Prunus avium</i>	Cherry	
<i>Pyrus communis</i>	Wild pear	
<i>Quercus petraea</i>	Sessile oak	
<i>Radiola linoides</i>	Allseed	
<i>Ranunculus auricomus</i>	Goldilocks buttercup	
<i>Rhamnus cathartica</i>	Buckthorn	
<i>Ribes nigrum</i>	Black currant	
<i>Rosa arvensis</i>	Field-rose	
<i>Ruscus aculeatus</i>	Butcher's broom	
<i>Sanicula europae</i>	Sanicle	
<i>Schedonorus giganteus</i>	Giant fescue	
<i>Scirpus sylvaticus</i>	Wood club rush	
<i>Scrophularia nodosa</i>	Common figwort	
<i>Scutellaria minor</i>	Lesser skullcap	
<i>Sedum telephium</i>	Orpine	
<i>Serratula tinctoria</i>	Sawwort	
<i>Solidago virgaurea</i>	Goldenrod	
<i>Sorbus aria</i>	Whitebeam	
<i>Sorbus aucuparia</i>	Rowan	
<i>Sorbus torminalis</i>	Wild service tree	
<i>Stellaria neglecta</i>	Greater chickweed	
<i>Tilia cordata</i>	Small leaved lime	
<i>Ulmus glabra</i>	Wych elm	
<i>Vaccinium myrtillus</i>	Bilberry	
<i>Valeriana dioica</i>	Marsh valerian	
<i>Veronica montana</i>	Wood speedwell	

<i>Viburnum opulus</i>	Guelder rose	
<i>Vicia sylvatica</i>	Wood vetch	
<i>Viola odorata</i>	Sweet violet	
<i>Viola reichenbachiana</i>	Early dog violet	
<i>Wahlenbergia hederacea</i>	Ivy-leaved bellflower	