

REPTILE SURVEY & MITIGATION PLAN

**LAND AT KINGS CLOSE,
YAPTON
WEST SUSSEX
BN18 0EY**

Viewpoint Associates LLP
Jolesfield Grange
Jolesfield
Partridge Green
West Sussex
RH13 8JT

Tel: 01403 710001

Email: info@view-point.co.uk

STATUS:	Rev. C
	26/10/17



Contents:

1.	EXECUTIVE SUMMARY	3
2.	INTRODUCTION & BACKGROUND	4
	Site Overview	4
3.	LEGISLATION & POLICY	5
	Reptiles	5
4.	METHODOLOGY	6
	Reptile Presence/Absence Survey – Artificial Refugia and Visual Encounter Transect	6
5.	SURVEY RESULTS	7
	Phase 2 Reptile Survey - Artificial Refugia & Visual Encounter Transect	7
6.	POTENTIAL IMPACTS AND MITIGATION PLAN	9
	Mitigation Strategy	9
	Receptor Site Management Guidelines	12
	Timeline of Reptile Mitigation and Enhancement Measures	13
7.	ONSITE ENHANCEMENT RECOMMENDATIONS	14
	Deadwood Habitat Piles	14
	Wildlife Beneficial Landscaping Scheme	14
8.	REFERENCES	15

1. EXECUTIVE SUMMARY

- 1.1. This report documents the results of a reptile presence/absence survey and mitigation recommendations at the Land at Kings Close, Yapton, West Sussex BN18 0EY. The survey was conducted in order to discharge planning permission Y/22/14/ condition 12 that “no development or preparatory works affecting the site shall be carried out until a reptile survey has been undertaken”.
- 1.2. An initial Phase 1 Habitat Assessment carried out by the Ecology Co-Op in May 2014, identified habitats on site with potential to support common reptiles. The report recommended further survey work in the form of reptile presence/absence surveys, which have been subsequently conducted.
- 1.3. Slow worms were found to be present on site during the surveys. The numbers found indicate the site supports a low population of this species. As habitats suitable for reptiles will be impacted by the development, a reptile translocation programme and destructive search prior to construction will be undertaken in suitable weather conditions and reptiles translocated to a suitable receptor site. The advised mitigation measures are detailed in section 6 of the report, but to summarise it is recommended that the reptiles are translocated to suitable receptor sites approved by an Ecologist, the site destructively cleared under the ecological supervision and enhancements implemented.
- 1.4. All rubble/deadwood piles due for removal should be cleared by hand and done so under ecological supervision to ensure no animals are harmed.
- 1.5. All contractors will be given a tool box talk prior to construction starting on site.
- 1.6. As a precaution, all trenches and excavations during the construction phase are to be covered overnight to ensure that no animals could fall in and become trapped or a ramp provided to allow escape.
- 1.7. The reptile receptor site is to be maintained indefinitely. The vegetation should be cut every other year during the winter months using a tractor with a side-arm flail. This regime will control scrub succession and allow a thick thatch and tussocks to build up in this area. Rough grassland will also improve invertebrate biodiversity within the site and provide essential food sources for faunal species including reptiles, birds and small mammals.

2. INTRODUCTION & BACKGROUND

- 2.1. Viewpoint Associates LLP was commissioned to undertake a reptile presence/absence survey at the Land at Kings Close, Yapton, West Sussex BN18 0EY. An initial Phase 1 Habitat Assessment was carried out by The Ecology Co-Op in May 2014, which identified the habitats on site as having potential to support common reptiles. The report recommended further survey work in the form of reptile presence/absence surveys, which have been subsequently conducted in order to discharge planning permission Y/22/14/condition 12:

“No development or preparatory works affecting the site shall be carried out until a reptile survey has been undertaken identifying detrimental impact and should it be necessary, also providing full details of mitigation.”

Site Overview

- 2.2. The proposed site is located in the centre of the Yapton, which lies approximately 4km west of Littlehampton. Residential buildings are located immediately to the south, east and west of the site, with a combination of flats and small commercial properties along the northern boundary. Kings Close runs along the southern and western boundaries respectively. The wider landscape comprises a mosaic of residential, recreational and commercial development, arable and pastoral fields with hedgerows, deciduous woodland and waterbodies. The site is presently comprised of areas of tall ruderal herbs, ephemeral/short perennial herbs, scattered scrub and bare ground (see Figure 1).



Figure 1: Proposed development site
Copyright Google Maps 2017

3. LEGISLATION & POLICY

Reptiles

- 3.1. All British reptiles are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are therefore protected from intentional killing or injury. This is largely as a consequence of a national decline in numbers associated with habitat loss.
- 3.2. Two scarcer native British reptiles (smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis*), are afforded 'full' protection. This legislation makes it an offence to intentionally or recklessly kill, injure, disturb, take, possess or sell these species (in all life stages). It is also illegal to damage, destroy or obstruct access to places they use for breeding, resting, shelter and protection.
- 3.3. All species of reptile are priority species in the UKBAP and have been adopted as Species of Principal Importance under Section 41 of the NERC Act (2006) in England (Section 42 in Wales).

4. METHODOLOGY

Reptile Presence/Absence Survey – Artificial Refugia and Visual Encounter Transect

- 4.1. Assistant Ecologist Matt Ruiz BSc (Hons) GradCIEEM and Richard Angliss MSc undertook artificial refugia and visual encounter transect surveys for eight days between 25th July 2017 and 21st August 2017.
- 4.2. The artificial refugia were positioned in areas of suitable reptile habitat approximately two weeks before the start of the survey to allow any present reptiles to locate them. All refugia were checked by the surveyor on each of the required seven days, whilst carefully observing the nearby vegetation and rubble piles on the transect route for any movement from disturbed reptiles.
- 4.3. Each visit to the site was undertaken by one surveyor in suitable weather conditions, with air temperatures between 9°C and 19°C, no rain or strong winds, following the guidelines set out by Froglife (1999) and JNCC (2012).

5. SURVEY RESULTS

Phase 2 Reptile Survey - Artificial Refugia & Visual Encounter Transect

- 5.1. As in 2014, the scrub, ruderal and ephemeral herbs and grassy areas still offer high potential habitat for common reptile species. The scattered rubble/debris piles and the vegetated spoil heaps in the western section of the site were identified as good potential places for shelter.
- 5.2. During the survey, only slow worms were found on site with a maximum of 12 recorded. The majority of the slow worms were found in the central and western areas of the site, frequently observed under the mats located around the spoil heaps. Full survey results are shown in Table 1 below and in Figure 2. An extra day of surveying was conducted due to disturbance on the eastern edge of the site during one of the visits. As no reptiles were recorded at this time, this disturbance was considered a limitation and it was deemed necessary to conduct a further survey.

Table 1 - Survey results from reptile presence / absence surveys

Survey Number	Date	No. of slow worms	Survey start time	Temp. °C	Conditions
1	25/7/17	7 female adults	14:00	19	Sunny. 60% cloud cover. Light breeze (Beaufort Scale 1). Damp.
2	28/7/17	No reptiles recorded	09:30	16	80% cloud cover. Light breeze (Beaufort Scale 1). Dry.
3	04/7/17	1 young adult female	07:30	16	100% cloud cover. Light breeze (Beaufort Scale 1). Dry.
4	7/8/17	4 adult females	17:45	18	Sunny. 10% cloud cover. Light breeze (Beaufort Scale 1). Dry.

5	11/8/17	2 adult females	17:00	19	5 0% cloud cover. Calm (Beaufort Scale 0). Dry.
6	14/8/17	9: 7 females, 2 males	11:30	18	90% cloud cover. Gentle breeze (Beaufort Scale 2). Dry.
7	18/8/17	7: 6 females 1 juvenile	09:20	19	80% cloud cover. Gentle breeze (Beaufort Scale 2) Dry.
8	21/8/17	12: 8 females 4 males	09:45	19	80% cloud cover. Light breeze (Beaufort Scale 1) Dry.

6. POTENTIAL IMPACTS AND MITIGATION PLAN

Reptiles

Predicted Impacts to Reptiles

- 6.1. Slow worms were found to be present on site during the surveys. According to Froglife (1999), the numbers found indicate the site supports a low population of this species (5-20 adults encountered during a single survey). The results also indicate that they are evidently breeding.
- 6.2. The habitats on site provide ideal habitats for slow worms. The distribution appears to be focused on the western and central areas of the site, particularly around the spoil and rubble heaps. These areas are within the red line boundary and will be directly impacted by ground works and during the construction period.
- 6.3. As these habitats will be impacted by the development, appropriate mitigation must be implemented. Without appropriate mitigation, the following impacts to reptiles are perceived:
 - Permanent loss of reptile habitat
 - Direct harm to reptiles during site clearance
 - Direct harm to animals straying on to the development footprint during development works

Mitigation Strategy

Aims of Mitigation

- 6.4. The reptile mitigation strategy detailed below will ensure that reptiles are protected during the course of the proposed works and, if appropriate, will be encouraged to frequent the area in the future.
- 6.5. The aims of the reptile mitigation strategy are as follows (English Nature, 2004):
 - To protect reptiles from any harm during the development work

- To ensure that sufficient quality, quantity and connectivity of habitat is provided to accommodate the reptile population, either on-site or at an alternative site with no net loss of local reptile conservation status.

6.6. The mitigation proposals have been designed to meet the above aims, both during and post completion of works. The implementation of these precautionary measures during the proposed works will ensure that the development has little or no impact on local ecology and the populations of any potential reptiles using the site.

Mitigation Measures

6.7. As reptiles are present on the site then during site clearance there is a risk of killing and injuring reptiles. As such a reptile translocation programme and destructive search prior to construction will be undertaken in suitable weather conditions and reptiles translocated to a suitable receptor site.

6.8. The proposed works on site are to be carried out in two phases – ‘Phase 1’ and ‘Phase 2’ in this report. Phase 1 refers to the plans for a section of the site undergoing development before spring 2018 and creation of an onsite receptor area. Phase 2 refers to the development of the remaining section of the site and subsequent translocation of the reptiles to a suitable offsite receptor area. As such, the reptile translocation programme will be undertaken in two phases, as detailed below. This is to allow for the commencement of the development and to prepare and enhance the offsite receptor site ready for translocation in the 2018 active reptile season.

Phase 1 – reptile translocation to onsite receptor site

6.9. A temporary receptor site has been created on site, which was deemed suitable in terms of size and habitat by Viewpoint ecologists.

6.10. The installation of standard reptile exclusion fencing (as specified by English Nature (2001)) around the receptor site has been undertaken. The fence will remain until the completion of all construction works. The installation of this fence will ensure that no reptiles can gain access to the active construction zone and this will ensure that the site can remain unconstrained through the construction process.

- 6.11. Suitable hibernacula within the receptor site will be created to enhance the habitat for translocated reptiles.
- 6.12. Reptile capture and translocations will be undertaken during October to the receptor site on site. Following a trapping and translocation period of 30 days using reptile refugia, or a no-capture period of 5 consecutive days, a direct search must be made of all vegetation to be cleared.
- 6.13. Directly following the translocation period and prior to any construction works taking place, all vegetation within the working footprint must be destructively cleared with an excavator under strict ecological supervision. This destructive clearance must take place outside of the reptile hibernation period (generally between October and March) to ensure that any reptiles present on site are active during the search. Any reptiles found during the destructive clearance and hedgerow removal will be removed to the receptor area. The on-site ecologist will also ensure that if any other species are detected they can be moved to safety. Once the top layer of soil has been stripped, spoil heaps/rubble piles have been destructively searched and the area is deemed clear of reptiles by the ecologist, then the works will continue unsupervised.
- 6.14. Following this process any remaining areas of vegetation to be retained must be managed to deter reptile incursions during the development phase. The vegetation should be regularly cut to below 100mm for the duration of the construction period to discourage animals from using the working footprint areas where there is a potential crushing hazard.
- 6.15. The reptile fence line must remain intact for the duration of the construction phase. The fence line can be removed for the final phase of site tidying following all construction works any further management in the receptor area should be undertaken in consultation with the ecologist to ensure it is beneficial for the population of slow worm which have been moved there.

Phase 2 – 2018 translocation to receptor site offsite

- 6.16. A suitable receptor site has been selected near Wisborough Green, West Sussex with woodland edge, scrub and grassland habitat present on site (see Figure 4). To enhance the site further in preparation for the reptiles, it is recommended that two hibernacula are created prior to the translocation. Habitat piles are to be located in a variety of both part shaded and sunny positions, within long grass adjacent to areas of scrub habitat.

- 6.17. During the 2018 reptile active season (March/April until October), the reptile translocation programme will resume and reptiles will be captured and moved to the offsite receptor site.
- 6.18. As in Phase 1, once the onsite receptor site is deemed free of reptiles, all vegetation within the working footprint must be destructively cleared with an excavator under strict ecological supervision. Any reptiles found during the destructive clearance and hedgerow removal will be removed to the receptor area.

General Mitigation Requirements

- 6.19. Supervision of all vegetation stripping or clearance by a suitably qualified Ecologist.
- 6.20. Monitoring and maintenance of reptile fencing shall be undertaken throughout the construction period.
- 6.21. Any areas proposed for site cabins, storage of materials or cranes must be subject to inspection by an experienced Ecologist immediately prior to installation.
- 6.22. All site workers are to be made aware of the presence of reptiles on site.
- 6.23. During all construction works any trenches or excavations will be covered overnight or a ramp provided to allow any animal to escape the hole should they fall in. All excavations should be investigated immediately prior to infilling to ensure no animals are trapped.

Receptor Site Management Guidelines

- 6.24. The reptile receptor site is to be maintained indefinitely. The vegetation should be cut every other year during the winter months using a tractor with a side-arm flail. This regime will control scrub succession and allow a thick thatch and tussocks to build up in this area. Rough grassland will also improve invertebrate biodiversity within the site and provide essential food sources for faunal species including reptiles, birds and small mammals.

Timeline of Reptile Mitigation and Enhancement Measures

6.25. Table 1 below summarises the schedule of the reptile mitigation and enhancement measures to be implemented at the new receptor site:

Table 1 - Summary of reptile mitigation and enhancement measures.

Mitigation or Enhancement	Timescale and seasonal constraints	Person to Implement
Translocation of reptiles from working footprint into the onsite reptile receptor area. Min. 30 day capture period unless 5 days of no capture in suitable conditions.	After fencing has been erected, capture for 30 days or until 5 consecutive days of no capture.	Suitably qualified Ecologist
Destructive search of Phase 1 development footprint. Ecologist to supervise stripping of top soil with excavator until all suitable habitat is cleared.	After completion of 2017 translocations	Suitably qualified Ecologist
All land <i>outside</i> of the onsite receptor area is now clear for all construction works. Receptor site reptile fence must be protected and maintained throughout this construction period.		
Offsite receptor area preparation e.g. creation of hibernacula and habitat piles.	Prior to 2018 translocations from the Yapton site	Suitably qualified Ecologist
Translocation of reptiles from the onsite reptile receptor area to offsite receptor site. Min. 30 day capture period unless 5 days of no capture in suitable conditions.	During the 2018 active reptile season during March/April until October.	Suitably qualified Ecologist
Destructive search of onsite receptor site. Ecologist to supervise stripping of top soil with excavator until all suitable habitat is cleared.	After completion of 2018 translocations	Suitably qualified Ecologist
All land within the onsite receptor area is now clear for all construction works. Reptile fence can be removed.		
Habitat management of receptor site Cut vegetation using tractor with side-arm flail	Every other year during the winter months	Landowner

7. ONSITE ENHANCEMENT RECOMMENDATIONS

Deadwood Habitat Piles

- 7.1. Log piles offer valuable habitats for a wide range of saprophytic (deadwood eating) invertebrates that will in turn provide food for a wide range of predatory species of insect, birds, mammals, amphibians and reptiles. These structured features also provide shelter and refuge opportunities for animals such as reptiles and have excellent wildlife value. Habitat piles can be created using large piles of native deadwood and brash in a number of different locations within the site, preferably in south facing locations. See Appendix 4 for information.

Wildlife Beneficial Landscaping Scheme

- 7.2. Any future planting should seek to enhance biodiversity, improve connectivity to the surrounding habitats and provide food and shelter for a wide range of faunal species. All amenity planting and formal landscaped areas should be created from a palette of native or wildlife beneficial ornamental plants chosen to increase the availability of nectar or fruit. Non-invasive species should be planted to prevent potential seed dispersal into surrounding habitats.
- 7.3. All habitats should be managed in a suitable way to encourage a wide variety of insects and other wildlife to use the site.

8. REFERENCES

Edgar, P., Foster, J. and Baker, J. (2010). *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.

English Nature (2004). *Reptiles: Guidelines for Developers*. English Nature.

Natural England (2011). *Reptile Mitigation Guidelines*. Natural England.



***NOTE** Areas are indicative and are not shown to exact scale.

- Site Boundary
- 2017 Onsite Receptor site

Figure 3 - Reptile On Site Receptor Area

Project: Land at Kings Close, Yapton



Date: 19/10/17 Rev: A



Location of receptor site near Loxwood

***NOTE** Areas are indicative and are not shown to exact scale.



2018 Offsite Receptor site



Hibernaculum potential location

**Figure 4 - Reptile
OffSite Receptor Area**

Project: Land at Kings
Close, Yapton



Date: 19/10/17 Rev: A

Appendix 1

APPENDIX 1 - PROTECTED SPECIES LEGISLATION

Bats

In England and Wales, all bat species and their roosts are legally protected under the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2010). You will be committing a criminal offence if you:

- Deliberately capture, injure or kill a bat
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time)
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost

Barbastelle, Bechstein's, greater horseshoe, lesser horseshoe, brown long-eared, soprano pipistrelle, and noctule bats are all priority species under the UK Biodiversity Action Plan (UK BAP) and have also been adopted as species of principal importance in England under Section 41 of the NERC Act 2006.

Badgers

Badgers and their setts are afforded strict protection under the Protection of Badgers Act 1992. This Act consolidates past badger legislation and, in addition to protecting the badger itself, makes it an offence to damage, destroy or obstruct badger setts. Badgers are also protected under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended), and listed under Appendix III of the Bern Convention, as a species that is in need of protection but may be hunted in exceptional instances. Only badger setts that are currently in use are covered by wildlife legislation.

Birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or to take, damage or destroy the nest or its eggs.

Some bird species, such as the barn owl *Tyto alba*, are listed in Schedule 1 of the 1981 Act and receive further protection, making it an offence to intentionally or recklessly disturb these birds whilst building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

The NERC Act (2006) inserts a new schedule into the Wildlife and Countryside Act (1981) to protect the nests of some bird species that regularly re-use their nests, even when the nests are not in use. This protection currently applies to golden eagle, white-tailed eagle and osprey.

Reptiles

All British reptiles are listed under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are therefore protected from intentional killing or injury. This is largely as a consequence of a national decline in numbers associated with habitat loss.

Two scarcer native British reptiles (smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis*), are afforded 'full' protection. This legislation makes it an offence to intentionally or recklessly kill, injure, disturb, take, possess or sell these species (in all life stages). It is also illegal to damage, destroy or obstruct access to places they use for breeding, resting, shelter and protection.

All species of reptile are priority species in the UKBAP and have been adopted as Species of Principal Importance under Section 41 of the NERC Act (2006) in England (Section 42 in Wales).

Amphibians

Great crested newts (GCN's) *Triturus cristatus* and their habitats are fully protected by the Conservation of Habitats and Species Regulations (2010) and partially protected under the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to kill, injure or capture GCN's, their young or eggs, or destroy / damage their ponds or places of shelter used for breeding or protection. The great crested newt is also a Priority species in the UK Biodiversity Action Plan (UKBAP), and had been adopted as a Species of Principle Importance in England under Section 41 of the NERC Act 2006.

The natterjack toad *Epidalea calamita* is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2010 making it a European Protected Species. The natterjack toad is also a priority species under the UK Biodiversity Action Plan.

The pool frog *Rana lessonae* is protected under the Conservation (Natural Habitats &C.) Regulations 1994 (as amended). As a European protected species the deliberate capturing, disturbing, injuring or killing of this species is prohibited, as is damage or destruction of its breeding sites or resting places. The pool frog is also a priority species under the UK Biodiversity Action Plan due to a 100% decline over 25 years (1980-2005).

Common toads *Bufo bufo* are also designated UKBAP species due to a serious decline of populations across large areas of southern, eastern and central England, thought to be mainly due to changes in habitat management, mortalities on the roads, and climate change.

Dormice

Common dormice *Muscardinus avellanarius* and their habitats are fully protected by both the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations (2010). This legislation makes it an offence to kill, injure, disturb or capture dormice, or destroy or obstruct their resting or breeding places.

The dormouse is also a priority species under the UK Biodiversity Action Plan and has been adopted as a species of Principal Importance in England under Section 41 of the NERC Act 2006 (section 42 in Wales) and so is protected from any adverse effects as a result of development.

Otters

Otters *Lutra lutra* are protected by both the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010. This legislation makes it is illegal to; deliberately or recklessly kill, injure or capture an otter, deliberately or recklessly disturb or harass an otter, damage, destroy or obstruct access to a breeding site or resting place of an otter.

The otter is also a UK BAP Priority Species and has been adopted as a Species of Principal Importance in England under Section 41 of the NERC Act 2006 (Section 42 in Wales) and the Conservation (Scotland) Act in Scotland.

Water Voles

Water voles *Arvicola terrestris* are fully protected under the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to kill or injure water voles, and to damage, destroy or obstruct access to places used for protection or shelter, and to disturb water voles whilst they occupy such a place.

The water vole is also a Priority species in the UK Biodiversity Action Plan, and had been adopted as a Species of Principle Importance in England under Section 41 of the NERC Act 2006.

White-clawed Crayfish

The white-clawed crayfish *Austropotamobius pallipes* is protected under the Wildlife and Countryside Act 1981 (as amended), making it a criminal offence to; intentionally or recklessly kill or injure a white-clawed crayfish, or sell or attempt to sell any part of this species. The Habitats Regulations (2010) provide further protection through the declaration of Special Areas of Conservation (SAC). This protection aims to prevent commercial harvesting of white-clawed crayfish and prohibits their capture without a licence.

The white-clawed crayfish is also a Priority species in the UK Biodiversity Action Plan (BAP), and has been adopted as a Species of Principal Importance in England under Section 41 of the NERC Act 2006.

Hedgehogs

Hedgehogs are UK Biodiversity Action Plan (BAP) species, and therefore must be taken into consideration as part of development planning. A recent report (Wembridge, 2011) shows that hedgehog numbers have declined by 25% in the last ten years.

Appendix 2

APPENDIX 2 - SURVEY AND REPORTING LIMITATIONS AND EXCEPTIONS

This report and its survey results should be considered in conjunction with the terms and conditions proposed and scope of works agreed between Viewpoint Associates LLP and the client.

This report has been produced in the context of the proposals stated in the Introduction & Background section of this report (Section 2) and should not be used in any other context.

Viewpoint Associates LLP have endeavoured to identify the likely presence / absence of protected species wherever possible on site, where this falls within the agreed scope of works. Current standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility can be accepted where these methodologies fail to identify all species or significant species on site.

Extended Phase 1 and Preliminary Ecological survey techniques provide a preliminary assessment of the likelihood of protected species occurring on the development site, based on the suitability of the habitats and any field signs found during the site visit. A Phase 1 survey should not be taken as providing a full and definitive survey of any protected species group.

Extended Phase 1 and Preliminary Ecological Appraisals represent a snapshot of conditions at the time of survey and are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. Surveys should therefore not be considered a comprehensive list of all plant species or as conclusive proof that certain protected species are not present or will not be present in the future.

Where the presence/absence of a certain species is in question our ecologists must apply a precautionary approach until further survey data can be sought to better inform the decision.

Viewpoint Associates LLP will advise on the optimum survey season for a particular habitat or protected species prior to undertaking the survey work. Viewpoint Associates LLP cannot accept responsibility for the accuracy of surveys undertaken outside this period.

The Impacts, Mitigation and Enhancements section of the report provides an overview and is for guidance only. This section should not be solely relied upon, but should be considered in the context of the whole report.

Interpretations of survey results and recommendations outlined in the report represent our professional opinions, expressed in accordance with recognised industry practices and current legislation at the time of reporting. The results of survey work undertaken by Viewpoint Associates LLP are representative at the time of surveying.

Where the client had supplied us with data from previous reports, it has been assumed that this information is valid. No responsibility can be accepted by Viewpoint Associates LLP for inaccuracies within any previous data supplied.

The copyright in this report, plans and other associated documents prepared by Viewpoint Associates LLP is owned by them and no such report, plans and other associated documents may be reproduced without their written consent.

Amendments to this report after its submission may be necessary in light of new, relevant information and / or legislation. This report should be referred to us for re-assessment if any such amendments are necessary or after the expiry of one year from the date of the report.

Appendix 3

Appendix 3 - Deadwood Piles & Hibernacula

Deadwood Habitats

Deadwood habitat piles offer valuable habitats for an array of saprophytic (deadwood eating) invertebrates that will in turn provide food for a wide range of predatory species of insects, birds, mammals, reptiles and amphibians. Standing deadwood provides warm and dry conditions that can be utilised by a specific set of invertebrates.



Hibernacula for Reptiles & Amphibians

Deadwood habitat piles also provide shelter and refuge opportunities for animals, particularly reptiles and amphibians. Decomposing piles of wood, mud and vegetation provide heat required by basking reptiles. Frogs and toads are also likely to use such habitat for shelter and feeding.