


**Reptile Survey**  
**Of**  
**Former Covered Reservoir at Gondar Gardens,**  
**Camden, London**

On behalf of  
**Linden Wates (West Hampstead) Limited**

**November 2013**

**Rev A**

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## **Executive Summary**

- 0.1 A reptile survey of the Former Covered Reservoir at Gondar Gardens, Camden in London was undertaken between the 28<sup>th</sup> August and 02<sup>nd</sup> October 2013.
- 0.2 The aim of the survey was to establish the presence or likely absence of reptiles across the site following Natural England approved guidelines (Froglife 1999).
- 0.3 A good population of slow worms were recorded using the site, predominantly in the rough grass on the southern boundary and one individual on the northern boundary.
- 0.4 A mitigation strategy should be implemented in full prior to any works starting on site. This is likely to involve erecting a reptile fence around the construction area, and re-locating any slow worms found within this area to the retained and enhance reptile habitat in the wildlife area.
- 0.5 If development does not begin within two years, then the surveys should be updated to ensure that the distribution and population size of reptiles has not changed in the interim.

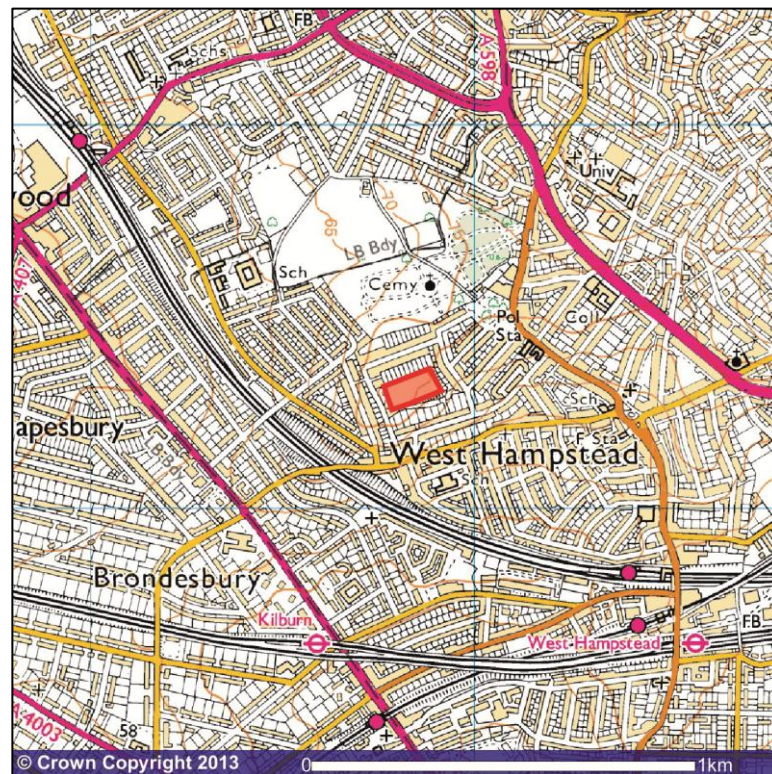
## 1 Introduction

### Background to the study

- 1.1 JBA Consultancy Services Ltd were commissioned by Linden Wates (West Hampstead) Limited to carry out a reptile survey of the Former Covered Reservoir at Gondar Gardens, Camden in London. Grid ref: TQ 248 853 (taken from the centre of the site).
- 1.2 The reptile surveys were undertaken by James Booty BSc (Hons), Owen Jones BSc (Hons) and Phil Aldwinckle BSc (Hons) MRes Grad CIEEM from JBA Consultancy Services Ltd between the 28<sup>th</sup> August and 2<sup>nd</sup> October 2013, on days with suitable weather conditions for finding reptiles (Froglife 1999).
- 1.3 Protected and BAP species, such as grass snakes, common lizards and slow worms, are a material consideration under the National Planning Policy Framework (NPPF, 2012). All reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981.

### Site Description

- 1.4 The site was located to the south-east of Gondar Gardens road, Camden in London. Residential properties with gardens were located directly adjacent to the southern, northern and eastern boundaries of the site, while directly to the west was Gondar Gardens road, across which were further residential properties. The surrounding habitats were mostly urban with the parkland habitats of Hampstead Cemetery located approximately 130m north of the site with recreational fields beyond.
- 1.5 The site itself consisted of an underground former reservoir with a neutral rough grassland (seeded) covering. Banks to the eastern and southern boundaries had more established rough grassland with shrubs and trees on the site boundaries providing good foraging habitat and potential sheltering opportunities for reptiles.

**Figure 1:** Site location

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## Details of the proposals

- 1.6 Current proposals for the development detail residential properties on the western boundary of the site, adjacent to Gondar Gardens road, with associated gardens. The majority of the rough grassland and boundary vegetation will be retained and enhanced.

## Aims and objectives

- 1.7 The aims and objectives of this survey were to;
- identify the presence of any reptile species using the site;
  - advise of any implications their presence would have on the proposed development; and
  - suggest appropriate mitigation methods where necessary.

## 2 Methods

- 2.1 To undertake the reptile survey, artificial refuges (roofing felt mats) were used. These increase the chances of observing otherwise elusive reptiles, which are attracted to these 'refuges' as they can bask on top or regulate their body temperature below the refuges, out of sight from predators.
- 2.2 One hundred and thirty one refuges, measuring approximately 0.25m<sup>2</sup>, were laid down on the 28<sup>th</sup> August 2013. The refuges were laid in all areas of suitable reptile habitat throughout the site.
- 2.3 The refuges were left for seven days prior to the commencement of the survey to allow any reptiles present to begin using the refuges.
- 2.4 The refuges were surveyed on ten subsequent visits to the site.
- 2.5 On each visit, refuges were observed from a distance to record any reptiles basking in the sun.
- 2.6 Following this, each refuge was approached cautiously and turned over to survey for reptile species using the refuge to warm up or shelter underneath.

### 3 Results

3.1 Reptile surveys were previously carried out at the site from 22<sup>nd</sup> July to 20<sup>th</sup> September 2010 (James Blake Associates 2010). A low population of slow worms was found using the site.

3.2 The Greenspace Information for Greater London (GIGL) was also consulted for records of protected and rare species within a 2km search radius (GIGL data provided on the 9th September 2013).

**Table 1:** Data provided by GIGL for reptiles species within 2km of the site

Reptiles	Protection	Approximate distance from site	Year of Record
Slow worm	Partially protected under the WCA Schedule 5	67m south-west	2010

### Survey Results

3.3 Records from the ten survey visits are detailed in Table 2. A plan showing the area in which reptiles were recorded on the site is shown in Appendix A.

**Table 2:** Summary of results

Visit	Date	Weather conditions	Grass snake	Adder	Slow worm	Common lizard
1	04/09/13	17°C, 20% cloud, Beaufort 1-2	0	0	0	0
2	06/09/13	16°C, 100% cloud. Beaufort 1	0	0	0	0
3	10/09/13	15°C, 60% cloud, Beaufort 1, sunny spells	0	0	3 hatchlings	0
4	13/09/13	16°C, 40% cloud, Beaufort 1, after rain, sunny spells	0	0	2 female, 1 male & 1 hatchling	0



5	16/09/13	14°C, 30% cloud, Beaufort 2, sunny spells	0	0	0	0
6	18/09/13	14°C, 50% cloud, Beaufort 2, sunny spells	0	0	1 female	0
7	23/09/13	17°C, 100% cloud, Beaufort 1	0	0	2 female, 1 male & 4 hatchlings	0
8	25/09/13	17°C, 50% cloud, Beaufort 1, sunny	0	0	3 female & 1 juvenile	0
9	30/09/13	16°C, 50% cloud, Beaufort 2, sunny spells	0	0	5 female & 4 hatchlings	0
10	02/10/13	17°C, 90% cloud, Beaufort 1, hazy sunshine	0	0	2 female, 1 juvenile & 1 hatchling	0

*For distribution see Appendix A*

### Reptile Population Assessment

- 3.4 Froglife (1999) provides means of evaluating reptile populations based on survey results using a density of 10 refuges per hectare. “Low”, “good” or “exceptional” populations are based on numbers of adult reptiles recorded by one surveyor in one visit (see Table 3).

**Table 3:** Reptile population assessment *Froglife* (1999)

Species	Low Population	Good Population	Exceptional Population
Grass snake	Less than 5	5-10	Greater than 10
Adder	Less than 5	5-10	Greater than 10
Slow worm	Less than 5	5-20	Greater than 20
Common lizard	Less than 5	5-20	Greater than 20

- 3.5 Figures in the table refer to the minimum number of adults seen by one surveyor in one day at a refuge density of up to 10 per hectare.
- 3.6 Given that the density of refuges used during this survey was higher than those recommended, a clear comparison using the table above cannot be made.
- 3.7 On the 30th September 2013, five adult females and four hatchling slow worms were recorded during a survey. It is therefore considered that a “good “population of slow worms is using the site, based upon the Froglife assessment (Table 3). However, it should be noted that the population recorded is at the lower range of this classification (5 adults), and occurred on only one visit.

#### **4 Discussion and Recommendations**

- 4.1 Survey visits were all carried out in suitable weather conditions at the optimal time of year for reptile surveys. The density of refuges used was well above the recommended: One hundred and thirty one refuges were used across approximately 1.3ha of land, whereas guidelines suggest 10 per hectare. Therefore, the survey results are considered to provide an accurate account of the reptile status on the site.
- 4.2 A good population of slow worms was recorded under artificial refuges predominantly in the rough grass on the southern boundary and one individual recorded on the northern boundary, as shown in Appendix A.
- 4.3 In 2010, a low population of slow worms was recorded using the site (James Blake Associates 2010). Since then, habitat management has included installation of log piles, which could be used by slow worms as hibernacula and selective strimming of the grassland. However, strimming must be maintained to ensure long term viability of the population.
- 4.4 To prevent harm to reptiles, any slow worms within the area to be disturbed should be re-located prior to any ground works taking place. This should be carried out following the Mitigation Method Statement previously prepared (JBA 2010), which is still appropriate for the size of the population.

- 4.5 If development does not begin within two years, then the surveys should be updated to ensure that the distribution and population size of reptiles on the site has not changed in the interim.

## 5 References

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Froglife (1999). Reptile survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. *Froglife Advice Sheet 10*. Froglife, Halesworth.

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James Blake Associates (2010). *Reptile Survey of Gondar Gardens Reservoir Site*, on behalf of Linden Wates (West Hampstead) Limited.

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## Appendices

### Appendix A: Indicative location of reptile observations



**Appendix B: Relevant protected species legislation**

<b>Species</b>	<b>Relevant Legislation</b>	<b>Level of Protection</b>
Widespread reptiles	<ul style="list-style-type: none"><li>Partially protected by the Wildlife and Countryside Act.</li></ul>	The WCA (1981) makes it an offence to: <ul style="list-style-type: none"><li>intentionally kill or injure these animals</li><li>sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals</li></ul>