

# RPS

**Aldwick End, Hawthorn Road, Bognor Regis, West Sussex**

**Updated ecological assessment and mitigation proposals  
for the retention & management of amphibians.**

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**29<sup>th</sup> May 2008**

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### Notice to Interested Parties

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g. species abundances or habitat management efficacy described in the report.

### Document Information

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|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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## CONTENTS

|                                                                                                  |           |
|--------------------------------------------------------------------------------------------------|-----------|
| <b>0 EXECUTIVE SUMMARY .....</b>                                                                 | <b>5</b>  |
| <b>1 INTRODUCTION .....</b>                                                                      | <b>6</b>  |
| Background to the study .....                                                                    | 6         |
| Current study objectives.....                                                                    | 6         |
| Study area.....                                                                                  | 6         |
| Development Plans .....                                                                          | 7         |
| <b>2 METHODS .....</b>                                                                           | <b>7</b>  |
| Site Visit .....                                                                                 | 7         |
| Great Crested Newts.....                                                                         | 7         |
| Reptiles.....                                                                                    | 7         |
| Badgers.....                                                                                     | 7         |
| Birds .....                                                                                      | 8         |
| Bats .....                                                                                       | 8         |
| Amphibian mitigation .....                                                                       | 8         |
| <b>3 RESULTS.....</b>                                                                            | <b>10</b> |
| Site Visit .....                                                                                 | 10        |
| Great Crested Newts.....                                                                         | 10        |
| Reptiles.....                                                                                    | 10        |
| Birds .....                                                                                      | 10        |
| Badgers.....                                                                                     | 10        |
| Bats .....                                                                                       | 11        |
| Trees .....                                                                                      | 11        |
| Amphibian Mitigation .....                                                                       | 11        |
| <b>4 EVALUATION .....</b>                                                                        | <b>12</b> |
| Evaluation of the potential for protected species or species of conservation<br>Importance ..... | 12        |
| Great Crested Newts.....                                                                         | 12        |
| Reptiles.....                                                                                    | 12        |
| Birds .....                                                                                      | 12        |
| Badgers.....                                                                                     | 12        |
| Bats .....                                                                                       | 12        |
| <b>5 MITIGATION STRATEGY FOR THE MANAGEMENT AND THE RETENTION OF<br/>AMPHIBIANS .....</b>        | <b>13</b> |
| Introduction .....                                                                               | 13        |
| Location of New Wildlife Pond.....                                                               | 13        |
| Design of the Wildlife Pond .....                                                                | 13        |
| Stocking the wildlife pond .....                                                                 | 14        |

|                                                                                               |               |
|-----------------------------------------------------------------------------------------------|---------------|
| Plants for the pond.....                                                                      | 14            |
| Animals for the pond .....                                                                    | 14            |
| <b>Habitat surrounding the pond .....</b>                                                     | <b>14</b>     |
| <b>Managing the pond .....</b>                                                                | <b>14</b>     |
| <b>6 CONCLUSIONS .....</b>                                                                    | <b>14</b>     |
| <b>7 RECOMMENDATIONS .....</b>                                                                | <b>14</b>     |
| <b>8 REFERENCES .....</b>                                                                     | <b>16</b>     |
| <br><b>FIGURES .....</b>                                                                      | <br><b>17</b> |
| <b>Figure 3.1: Location of new Wildlife pond, Aldwick End, Bognor Regis, West Sussex.....</b> | <b>17</b>     |

## **0 EXECUTIVE SUMMARY**

- 0.1 RPS St.Ives (Ecology) was commissioned by The Planning Bureau Ltd. to carry out an update of a previous survey on the ecological status of Aldwick End, 262 Hawthorn Road in Bognor Regis, West Sussex.
- 0.2 Specific surveys were recommended on the basis of a walkover survey carried out by RPS in February 2006 (RPS, 2006a, RPS 2006b). These specific surveys that were carried out included:
- Great Crested Newt surveys of the pond and ditch.
  - Reptile surveys in areas of potential habitat.
  - Bat emergence survey on the hanging tiles at the south-west of the house.
- 0.3 The objective of the current study was to determine whether a change in the ecological status of the site has occurred since the 2006 surveys were carried out.
- 0.4 It is considered that, on the basis of this survey, there has been no change in the ecological status of the site since the previous surveys.
- 0.5 It is recommended that a wildlife pond is created to satisfy planning condition 6 and that this pond will be designed in line with the mitigation strategy detailed in Section 5.
- 0.6 Specific recommendations relating to the site development are detailed in Section 7.

## 1 INTRODUCTION

### Background to the study

- 1.1 RPS St.Ives (Ecology) was commissioned by The Planning Bureau Ltd. to carry out an update survey on the ecological status of Aldwick End, 262 Hawthorn Road in Bognor Regis, West Sussex to assess whether a change in the ecological status had taken place since the last surveys were carried out in 2006 and to also develop a mitigation strategy for the management and retention of amphibians on site, in order to fulfil a planning condition (Condition 6) imposed on a planning permission for the site.

- 1.2 Condition 6 states that:

*Details of a scheme for the retention and management of the amphibians found on the site shall be submitted to and approved in writing by the local planning authority before the development hereby permitted is commenced.*

*Reason: In the interests of nature conservation in accordance with policy GEN29 of the Arun District Local Plan.*

- 1.3 A walkover survey carried out by RPS in February 2006 (RPS, 2006a) recommended further survey work for:

- Great Crested Newts (pond and ditch).
- Reptiles (in areas of potential habitat).
- Bats (emergence survey on the hanging tiles at the south-west of the house).

- 1.4 Results from these surveys were reported in RPS (2006b). No evidence of Great Crested Newts, reptiles or bats was found. Four amphibian species, including Common Toad, Common Frog, Smooth Newt and Palmate Newt have been recorded present on the site.

### Current study objectives

- 1.5 To determine whether a change in the ecological status of the site has occurred since 2006 and to develop a mitigation strategy for the management and retention of four amphibian species recorded on site.

### Study area

- 1.6 The location and extent of the site is shown in Figure 1.1. The area of potential development considered in this survey lies on the north-

western outskirts of Bognor Regis. The site is 1.25 acres in size and includes a residential property (currently unoccupied), with garden and adjoining paddock. The site is bound to the east by Hawthorn Road, the south by West Meads Drive, the north and west of the site by gardens. The site is now secured by fencing and a padlocked gate.

- 1.7 In addition to the house, the site also comprises amenity grassland, a grazing meadow currently overgrown by scrub (predominately bramble), mature trees, ornamental shrubs, a ditch and a pond.

### **Development Plans**

- 1.8 There are plans to demolish the house and build approximately 48 retirement home units.

## **2 METHODS**

### **Site Visit**

#### *Great Crested Newts*

- 2.1 The pond and ditch were re-assessed for their potential to support Great Crested Newts.
- 2.2 Egg searching of emergent and marginal vegetation was carried out, looking for characteristic folded leaves with eggs inside.
- 2.3 A Cluson Clubman CB2 torch (1,000,000 candlepower) was used to walk slowly around the pond edge and ditch after dark, looking for Great Crested Newts.
- 2.4 Netting was employed as the third survey method. A sturdy long-handled net was used to sweep amongst the vegetation and around the edges of the water and, after each sweep, the contents of the net was searched for newts or newt larvae.

#### *Reptiles*

- 2.5 The grassland areas were re-surveyed to assess whether there is potential for reptiles to have colonised the site since 2006.

#### *Badgers*

- 2.6 The site was re-surveyed for its potential to support Badgers. The dense scrub in the adjoining paddock could provide good sett-building habitat and the gardens surrounding the site may provide potential Badger foraging habitat.

- 2.7 Scrub areas were inspected, where possible, for footprints, dung pits, snuffle holes and distinctive runways through the vegetation. Boundary fences within the site were searched for access points, latrines and stray hairs.

*Birds*

- 2.8 The hedgerows, trees, house and scrub habitat was assessed for their potential to support birds of conservation importance. Species using the site and features of interest were noted.

*Bats*

- 2.9 An inspection of the roof spaces and exterior of the property was made, to look for evidence of bats. A Cluson Clubman CB2 torch (1,000,000 candlepower) was used to search along the rafters for bats, staining from bat fur and scratch marks, and the floor was searched for bat droppings.

- 2.10 The trees on site were also re-examined from the ground looking for signs of bats using the trees, spaces that appear suitable for bats and potential access points. Sometimes a bat's occupation of a cavity will be revealed by the presence of droppings in or around the cavity, scratch marks or oil stains from the bat's fur. However, bats often leave no obvious signs of their presence. Therefore further surveys are recommended if there is any doubt.

- 2.11 A further emergence survey was carried out on the hanging tiles as it was not possible to confirm whether or not bats had been using the hanging tiles during the interior bat survey of the house. Emergence surveys involve a suitably qualified surveyor standing next to any suitable exit points at sunset with a bat detector to watch for any bats that may fly out of the house.

- 2.12 The survey was carried out on 29<sup>th</sup> April 2008. Two surveyors were present. The survey commenced at 20:10 and finished at 21:25.

- 2.13 A mini time-expansion bat detector (Pettersson D 240x) was used to record bat echolocation calls of any emerging bats and identify species where possible. Time-expanded (x10) recordings were made using a portable minidisc recorder (Sharp AD-N70B), which were later analysed using the computer software 'BatSound'.

**Amphibian mitigation**

- 2.14 Consultation between RPS and The Planning Bureau took place on the 30<sup>th</sup> May 2008 where the development plans, tree constraint plans and the landscape plans were consulted in order to agree an area habitat for the retention and management of amphibians on site.



### 3 RESULTS

#### Site Visit

##### *Great Crested Newts*

- 3.1 There was no evidence of Great Crested Newts utilising the pond. No Great Crested Newts or their eggs were found during the egg search. The netting and torch sweeping revealed only the presence of Smooth Newt *Triturus vulgaris*.
- 3.2 There was no evidence of Great Crested Newts utilising the ditch. No Great Crested Newts or their eggs were found during the egg search. The netting and torch sweeping did not reveal any amphibian utilising the water body.

##### *Reptiles*

- 3.3 The gardens of Aldwick End have become very overgrown and therefore do not currently provide suitable habitat for reptiles.

##### *Birds*

- 3.4 The garden and hedgerows were noted as supporting a good community of garden birds. The gardens, trees and house present on site could potentially support breeding birds of conservation importance. Birds recorded at the site during the survey visit were Woodpigeon *Columba palumbus*, Wren *Troglodytes troglodytes*, Crow *Corvus corone*, Magpie *Pica pica*, Robin *Erithacus rubecula*, Pied wagtail *Motacilla alba*, Blackbird *Turdus merula*, Blue Tit *Parus caeruleus*, Chaffinch *Fringilla coelebs* and House Sparrow *Passer domesticus*.
- 3.5 Of these species House Sparrow is of the greatest conservation significance due to their inclusion on the Birds of Conservation Concern Red List (Gregory *et al.*, 2002).
- 3.6 Red list species are those whose breeding (or wintering) population has decreased and/or whose breeding range has contracted by 50% or more in the preceding 25 years.
- 3.7 The previous occupier of the property has placed approximately five bird nesting boxes in the garden.

##### *Badgers*

- 3.8 Grassland areas were surveyed for footprints, dung pits, snuffle holes and distinctive runways through the vegetation. The boundary fence was searched for access points, latrines and stray hairs. The bramble

and scrub area was searched for signs of sett building activity, including dung pits and hairs close to sett entrances, discarded bedding, and spoil heaps from recent digging. This involved cutting back some of the bramble where distinctive runways led to inaccessible areas.

- 3.9 No evidence of Badger presence or past Badger activity was found within the site boundary.

#### *Bats*

##### Interior survey of Aldwick End

- 3.10 Despite a detailed and extensive search no evidence of occupation by bats was found in the roof of the house.
- 3.11 The rafters, purlins and floorboards contained no evidence of droppings and/or stain marks.
- 3.12 No potential access points were found on the outside of the house. All the roof tiles are well fitted and there were no gaps in any of the soffit boards.

##### Exterior survey of Aldwick End - Emergence Survey of hanging tiles

- 3.13 Weather conditions were warm, overcast, dry and 15°C at 20:00.
- 3.14 No bats were seen to have emerged from the main building. Two distant recordings of Common Pipistrelle were made at 20:46 and 21:02.

#### *Trees*

- 3.15 There are no trees present on site with potential to support bat roosts. All of the trees surveyed were fairly immature and did not have any suitable cracks and/or crevices.

#### **Amphibian Mitigation**

- 3.16 It was agreed with The Planning Bureau that a new wildlife pond will be created within the development and the position of this pond is detailed in Figure 3.1.

#### 4 EVALUATION

##### **Evaluation of the potential for protected species or species of conservation importance**

###### *Great Crested Newts*

- 4.1 It is considered highly unlikely that Great Crested Newts have begun to use the site since 2006. The scoping survey using a combination of egg searching, netting and torching did not reveal any evidence of recent colonisation by Great Crested Newts.
- 4.2 The presence of Smooth Newt does not represent a legal issue with regards to the proposed development.

###### *Reptiles*

- 4.3 The gardens do not contain habitat to support Reptiles. Since 2006 any potential habitat has become overgrown.

###### *Birds*

- 4.4 Although it is likely that there will be some UKBAP/BoCC red/amber list species within and around the site, populations are likely to be small and long-term impacts would not be significant. Therefore, further survey of breeding birds is not considered necessary.
- 4.5 If any work involving clearance of vegetation were scheduled to take place between the beginning of March and the end of August, a survey to check for nesting birds would be required. This applies to trees and ground vegetation. No vegetation can be cleared whilst a nest is occupied.
- 4.6 As it is likely that House Sparrows are currently breeding on site the provision of bird boxes within the new development will hopefully retain the individuals using the site as House Sparrows readily take to using nesting boxes (RSPB, 2008).

###### *Badgers*

- 4.7 No evidence of Badger presence or past Badger activity was found within the site boundary. It is therefore considered highly unlikely that Badgers have begun to use the site since 2006.

###### *Bats*

- 4.8 The survey did not reveal any evidence that the building, trees or hanging tiles are being, or have been, used by bats since the last

surveys were carried out. Therefore, bats do not represent a constraint to the development.

## **5 MITIGATION STRATEGY FOR THE MANAGEMENT AND THE RETENTION OF AMPHIBIANS**

### **Introduction**

5.1 The four amphibian species found on the site are partially protected under the Wildlife and Countryside Act 1981, Section 9(5), which prohibits sale, transporting and advertising for sale, and is intended to regulate any trade in these species.

5.2 However, in order to fulfil condition 6 for the retention and management of the amphibians found on the site it was agreed with The Planning Bureau that a new wildlife pond will be created to ensure the four amphibian species on site will have a waterbody to enable them to continue breeding at the site.

### **Location of New Wildlife Pond**

5.3 The current development plans result in the loss of the current breeding pond, detailed in Figure 3.1. The new pond will be located at the north of the site adjacent to the ditch. This location of the new pond within the development will ensure that the pond is not heavily shaded by the retained trees. This will allow the water to warm up quickly in the spring so encouraging plant growth (Natural England 2007a).

5.4 The proposed location of the new pond will also ensure that amphibians can easily colonise the pond from the surrounding area, as it is adjacent to the retained ditch. This location will also ensure that the amphibians will have access to the entire suitable terrestrial habitat retained on site. Terrestrial habitat is equally as important for amphibians as they only use waterbodies to breed (Froglife 2002).

### **Design of the Wildlife Pond**

5.5 In order to support the number of amphibian species currently present on site it considered that a pond at least 4m<sup>2</sup> is required (Sussex Wildlife Trust 2008). Amphibians prefer ponds with a varied depth profile, a good mix of aquatic plants, long grass around the edge and a sunny location (Natural England 2007b). The pond should be at least 40 – 50 cm deep in the centre with a large shallow 'shelve area' which should be between 1 -15cm deep (Natural England 2007a) as water Plants will flourish in this zone. The margins should be very gently sloping (in some places at least) so they merge naturally with the land. Lining and waterproofing the pond with a flexible liner such as Butyl or EPDM rubber (preferably one guaranteed for 25 years) will allow the pond to be created with a more 'natural margin'.

### **Stocking the wildlife pond**

#### *Plants for the pond*

- 5.6 Plants are a vital component of wildlife ponds as they provide both habitat and food for a variety of species. There are four categories of plants that make up wildlife ponds: Submerged plants, floating leaf plants, emergent plants and marginal plants. Natural England (2007b) provides a list of suitable native species for each category which is available as a free download from their website.

#### *Animals for the pond*

- 5.7 It is considered unnecessary to move animals into new ponds (Froglife 2002, Natural England 2007a). By creating the suitable habitat amphibians, in general, rapidly colonise new ponds.

### **Habitat surrounding the pond**

- 5.8 Planting with native species within the development and the creation of a log pile will provide the amphibians with places to find food and shelter (Froglife, 2002).

### **Managing the pond**

- 5.9 Excess vegetation from the pond should only be removed in the autumn when most amphibians have left the pond. When excess vegetation is removed it is best to leave it beside the pond for 24 hours (Natural England 2007a). This will enable any amphibians to disperse if they get caught in some of the stems, leaves and roots.
- 5.10 Never put cut materials from the garden into the pond as this may unknowingly cause the release of a problem species or disease into the pond.

## **6 CONCLUSIONS**

- 6.1 It is considered that, on the basis of this survey, there has been no change in the ecological status of Aldwick End, Bognor Regis, West Sussex since the previous surveys in 2006 were carried out.
- 6.2 It is considered that if the new wildlife pond is implemented it will provide an improved feature for wildlife on the site.

## **7 RECOMMENDATIONS**

- 7.1 There is a possibility that bats may start to use the property between this survey and demolition. It is therefore recommended that precautions are taken during the demolition works. In particular, the

hanging tiles should be lifted by hand in an upward direction to avoid damage to any bats which may be underneath, and all contractors and those involved with the demolition of the buildings should be informed of their legal obligations – in the unlikely event of bats being encountered at any time, work must stop and any bats found left undisturbed. In this instance advice should be sought from either Natural England, or a suitably qualified ecologist, on how and when to proceed.

- 7.2 If any work involving clearance of vegetation or demolition of properties were scheduled to take place between the beginning of March and the end of August, a survey to check for nesting birds would be required. This applies to trees and ground vegetation. Any nests would have to be left undisturbed until the chicks have fledged.
- 7.3 It is recommended that bird boxes and a bird table be provided within the garden of the new development.
- 7.4 It is also recommended that, where possible, native vegetation should be used preferentially for landscaping within the new development, in order to provide food and habitat to retain common garden birds' usage of the site.
- 7.5 The four amphibian species found on the site during the 2006 are partially protected under the Wildlife and Countryside Act 1981 Section 9(5), which prohibits sale, transporting and advertising for sale, and is intended to regulate any trade in these species.
- 7.6 It is recommended that a wildlife pond is created to satisfy planning condition 6 and that this pond will be designed in line with the mitigation strategy detailed in Section 5.

## 8 REFERENCES

Froglife (2002) *Frogs, toads and newts in garden ponds*. Froglife Advice Sheet 1: Froglife Suffolk.

Gregory, R.D., Wilkinson, N.I., Noble, D.G., Robinson, J.A., Brown, A.F., Hughes, J., Procter, D.A., Gibbons, D.W. & Galbraith, D.A. (2002). The population status of birds in the United Kingdom, Channel Islands and Isle of Man: an analysis of conservation concern 2002-2007. *British Birds*, **95**, 410-450.

Natural England (2007a) *Garden ponds and boggy areas: Havens for wildlife*. Natural England Publication NE27.

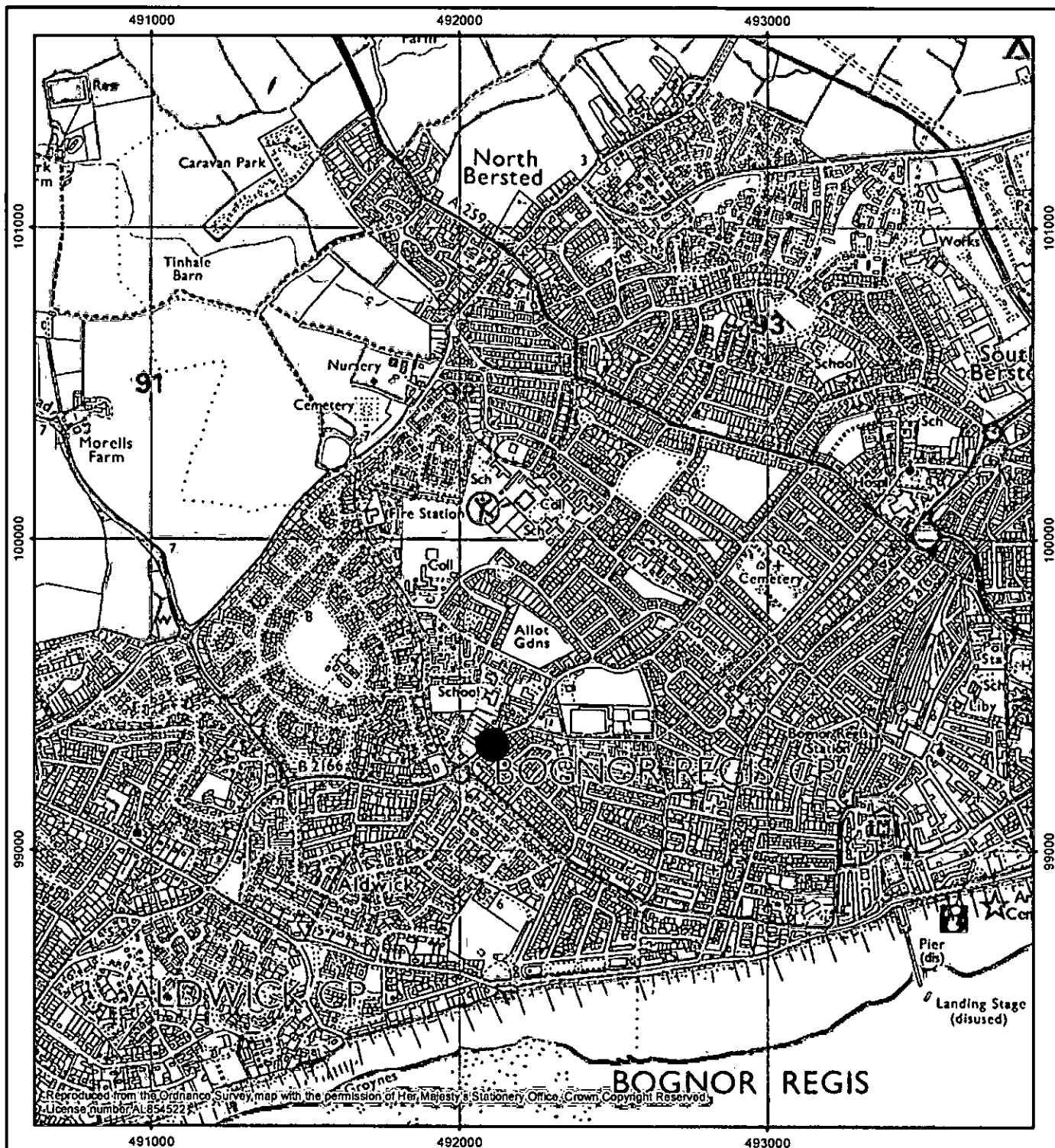
Natural England (2007b) *Amphibians in your garden: your questions answered*. Natural England Publication NE18.

RSPB(2008).<http://www.rspb.org.uk/wildlife/birdguide/name/h/housesparrow/index.asp>

RPS (2006a). *Walkover survey to determine habitats and species of conservation importance, Aldwick End, Bognor Regis, West Sussex*. RPS: St Ives.

RPS (2006b). *Ecological Assessment of Aldwick End, Bognor Regis, West Sussex*. RPS: St Ives.

Sussex Wildlife Trust (2008) *Pond Habitats*:  
<http://www.sussexwt.org.uk/wildlife/page00011.htm>



# Key

● Site location



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Title: Location Map

Date: June 2008

Scale: 1:18,000 @A4

Drawn: KM

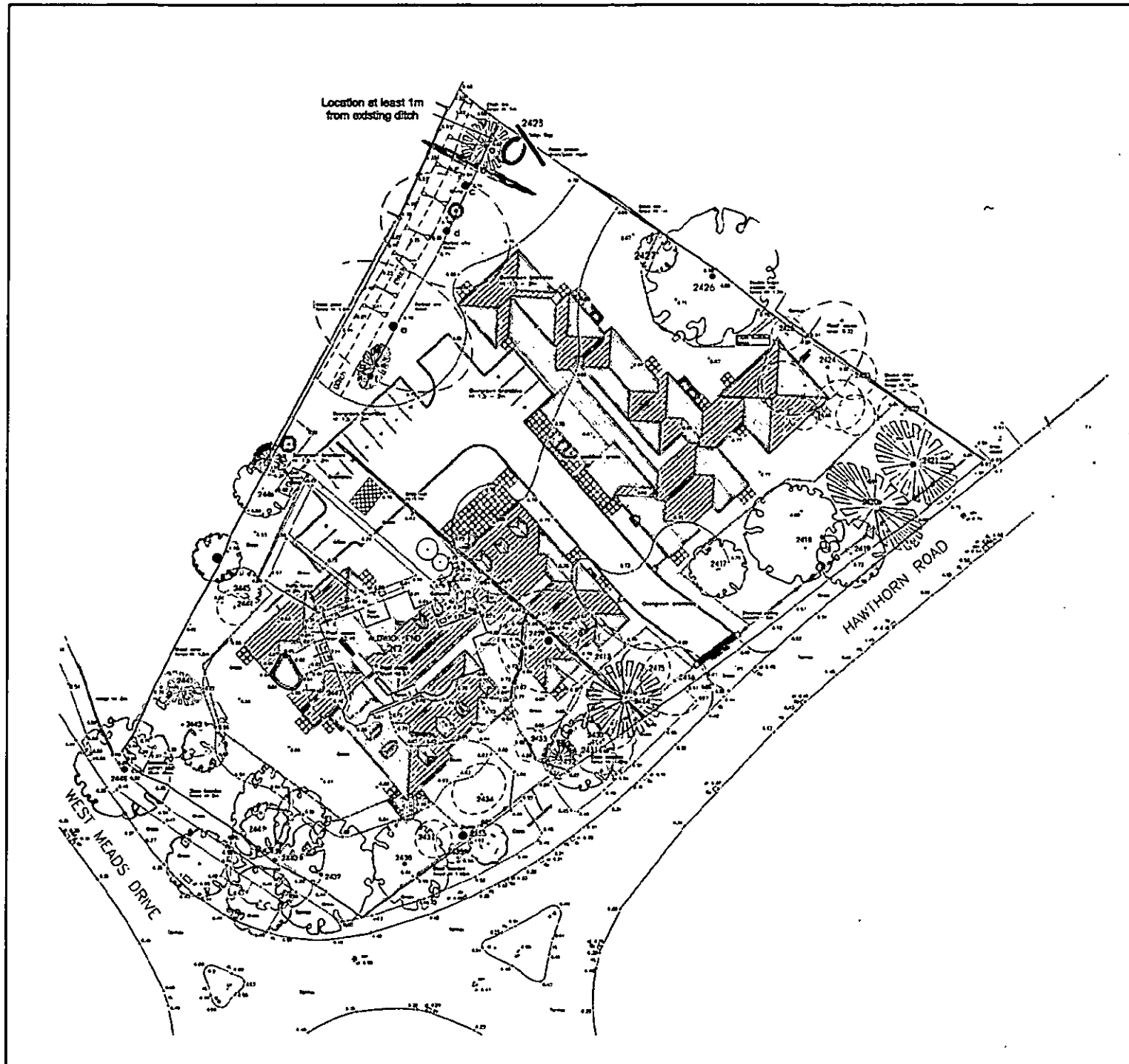
Checked: SJ

Job: JPP1211

Figure No: 1.1

Rev: A

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-  Existing wildlife pond
-  New wildlife pond (4x4m)



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|                     |                                                                          |                |
|---------------------|--------------------------------------------------------------------------|----------------|
| Client:             | The Planning Bureau Ltd                                                  |                |
| Project:            | Aldwick End                                                              |                |
| Title:              | Location of new wildlife pond, Aldwick End,<br>Bognor Regis, West Sussex |                |
| Date:               | May 2008                                                                 | Scale: NTS     |
| Drawn:              | KM                                                                       | Checked: SM    |
| Drawing based upon: |                                                                          |                |
| Job:                | Jp1211                                                                   | Figure No: 3.1 |
|                     |                                                                          | Rev: A         |
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## FIGURES

Figure 3.1: Location of new Wildlife pond, Aldwick End, Bognor Regis, West Sussex.

