

## EASTLEIGH BOROUGH COUNCIL

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### Horton Heath

## Appendix 10.6 Otter and Water Vole

### 1 NON-TECHNICAL SUMMARY

Johns Associates have carried out otter and water vole surveys across the wider Horton Heath Site in 2018 and these have recently been updated in 2020.

Historic surveys carried out by Ecologica Ltd showed a very low level of otter and water vole activity throughout the site. Results of the otter and water vole surveys carried out by Johns Associates between 2018 and 2020, along with desk study results suggest that both species have been present on site. However, due to the deterioration of suitability of the watercourses and grazing pressure, it is likely that these species are largely absent from the site with water vole absent and otter presence likely to be limited to the use of the site as connective habitat within the wider landscape.

### 2 INTRODUCTION

This report presents the results of otter (*Lutra lutra*) and water vole (*Arvicola amphibious*) surveys undertaken during 2018 and an update survey in 2020 by Johns Associates in support of the development proposals and planning application at Horton Heath. It also provides a summary of historic surveys for otter and water vole carried out at Horton Heath since 2014.

The aim of the surveys was to update the historic baseline and to confirm the presence or absence of otter and water vole within the Site and to identify any constraints to development and opportunities that could be delivered through the development proposals.

## 3 METHODOLOGY

### 3.1 DESK STUDY

Information provided by the Hampshire Biodiversity Information Centre and from previous surveys conducted by Ecologica Associates Ltd was reviewed for previous records of otter and water vole on the Site.

### 3.2 FIELD SURVEYS

The otter and water vole surveys were undertaken by Tom Johnston and Katherine Newbert on the 25th, 26th and 27th of September 2018 and a subsequent visit on the 10th of October. The weather on all dates were sunny with good visibility of stream banks.

An updated otter and water vole survey was undertaken by Matt Johns BSc MSc MCIEEM FGS MIFM and Myles Sedgwick BSc (Hons) of Johns Associates Ltd. The surveys were conducted over 6th and 7th July 2020 with the weather conditions being sunny and having good visibility of the waterways.

#### 3.2.1 Water vole

The survey was carried out from within the channel using waders. In order to establish presence / likely absence of active water burrows on the banks of the river within the stretch surveyed, banks were systematically inspected for characteristic signs of water vole including burrows, runs, food piles, latrines and areas of 'mowed' vegetation. Additional notes of suitable habitat suitability (or otherwise) were made and representative photographs were taken. Signs of rat, mink and other small mammals were also noted.

#### 3.2.2 Otter

In order to establish the presence of otter across the site all water bodies were systematically searched for characteristic signs of otter including, anal jelly, spraints, tracks / footprints, slides, possible holts and couches. Additional notes of habitat suitability were made and representative photographs taken. Any likely signs of rat, mink and other small mammals were also recorded.

The survey was carried out in accordance with Natural England guidance (Natural England, 2014).

#### 3.2.3 LIMITATIONS

Access to certain sections of the bank were not possible where vegetation was too thick, the water level was too high or entry / exit into and out of the watercourse was deemed too dangerous. Where this was the case the survey was continued from the side of the bank.

The results of the otter and water vole survey are valid at the time of survey (July 2020). Should there be any delays to the project timetable and/or implementation of the proposed dredging works, an update survey may need to be completed. In this instance, advice should be sought as to the validity of the data, recommendations and conclusions contained herein.

## 4 RESULTS

### 4.1 DESK STUDY AND HISTORIC SURVEYS

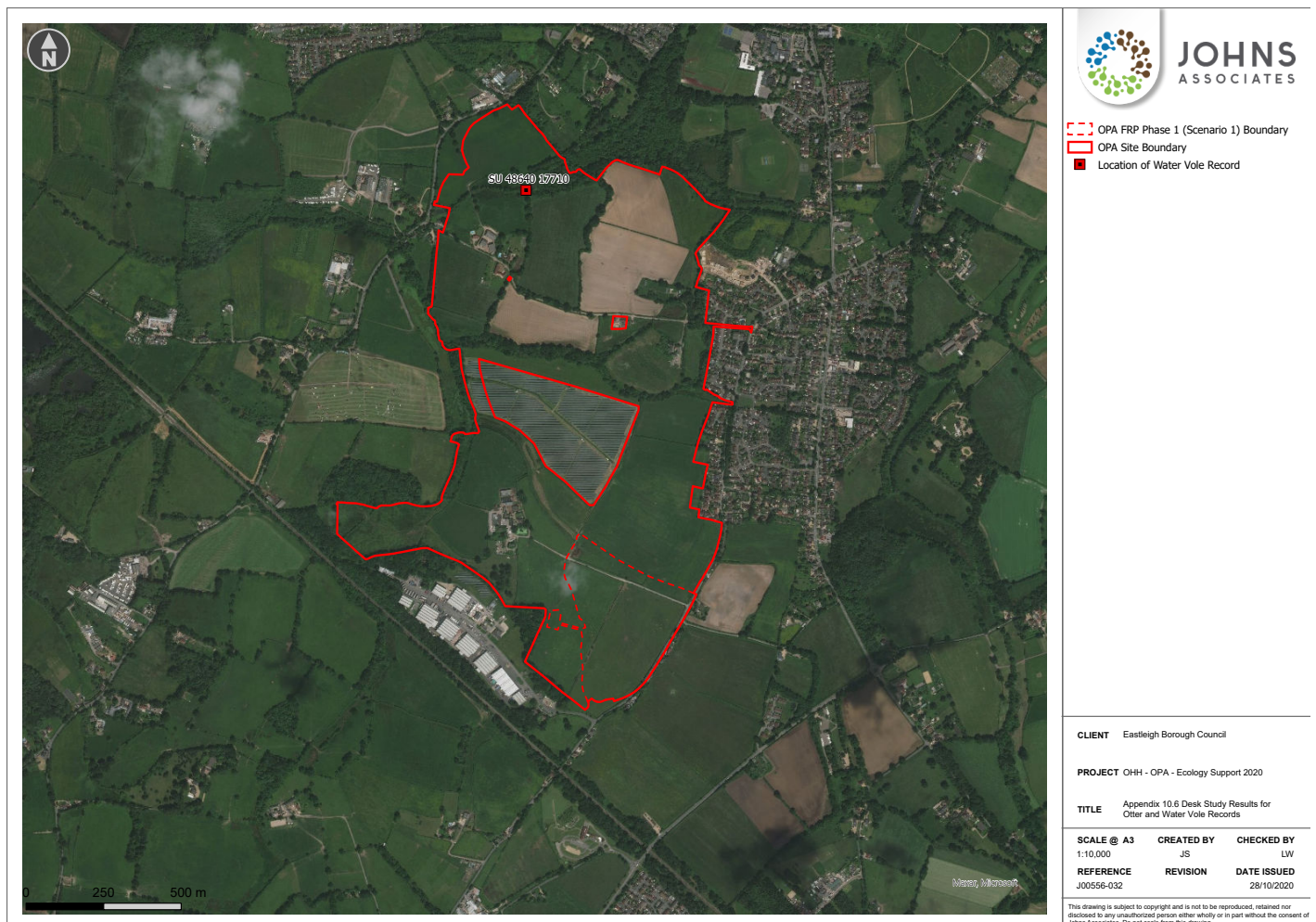
#### 4.1.1 Water vole

Data was provided by Hampshire Biodiversity Information Centre. There is one desk study record of water vole within the Site footprint in the last 10 years. There are also a number of other records approximately 1.8km north west of the Site near Bishopstoke.

The data shows that there is an extremely low population of water voles on site.

Previous surveys undertaken by Ecologica Associates Ltd in 2014 recorded a number of signs of water vole. The majority of sightings were on a watercourse on western boundary and a stream running across the site further north. A repeat survey was done in 2015 and found no signs of water vole. There was also one recorded sighting of water vole on 21/04/2018 along the northern watercourse (See Figure 1). Water vole surveys conducted by Johns Associated Ltd in 2018 found no signs of water vole.

Figure 1 - Desk Study Results within Site Boundary



#### 4.1.2 Otter

There are no desk study records of Otter within the site boundary. There are however five historical records of Otter within the last ten years approximately 1.8km north west of the Site near Bishopstoke.

Previous surveys conducted by Ecologica Associates Ltd in 2014 found only one set of footprints in the northwest corner of the site. Repeat surveys done in 2015 found no evidence of otter. Otter surveys conducted by Johns Associates Ltd in 2018 and 2020 found no signs of otter.

#### 4.1.3 Mink

There are no reported desk study records of mink (*Neovision vison*) being within or in close proximity to the site.

Previous surveys by Ecologica Associates Ltd in 2014 recorded three mink tracks. One in the south west corner of the Site and three in the north west corner. Mink evidence was also found during the repeat surveys in 2015 with footprints being found in the north west boundary. During the surveys conducted by Johns Associates Ltd in 2018 and 2020, one potential mink scat was recorded along a watercourse to the north of the site. Potential mink footprints were also found along a hedgerow to the south of the site.

### 4.2 FIELD EVIDENCE

#### 4.2.1 Habitat evaluation

##### 4.2.1.1 Water Vole

Habitat throughout the Site consist of mainly small streams and ditches. The majority of the watercourses have very little or no in channel vegetation with only small sections in the north of the Site containing highly layered bankside and in channel vegetation in conjunction with banks with suitable gradients for burrow excavation (see Plate 1). The majority of the Site is also heavily grazed by livestock and therefore the banks have been trampled / poached thus reducing the amount of suitable habitat present.

Plate 2: Example of Good Watervole Habitat



Plate 1: Potential Burrow



#### 4.2.1.2 Field Signs

No conclusive signs of water vole were found across the Site during the survey. Any suspected signs of water vole including those of rat and mink were recorded (Figure 2) (Plate 3 and Plate 4).

Plate 3: Rat Footprints



#### 4.2.1.3 Trail Cameras

In order to confirm presence of water vole in addition to standard survey techniques trail cameras were positioned in two locations where potential burrows and footprints were present see Figure 3.

Deployment dates:

Location 1 - 11/10/2018 – 24/10/2018

Location 2 - 24/10/2018 – 07/11/2018

The trail cameras confirmed that the burrows were likely to have been created / taken over by rats and that water voles are now unlikely to be present across the site.

#### 4.2.2 Otter

##### 4.2.2.1 Habitat evaluation

Watercourses within the site were considered unsuitable for otter during the survey. There is very limited habitat available for the establishment of holts within the system and the majority of the watercourses are regularly disturbed by cattle.

Prey availability was also noted during the course of the survey. There were no fish or crustaceans observed in any of the watercourses during the survey and very few waterbirds or amphibians. As such it is likely that the food resources would be too low to sustain a population of otters.

#### 4.2.2.2 Field signs

No signs of otter were identified during the survey. No other incidental sightings were also made.

#### 4.2.3 Mink

One potential mink scat was recorded along a watercourse to the north of the site. Potential mink footprints were also found (Plate 4) along a hedgerow to the south of the site.

Plate 4: Potential Mink Footprints



Figure 2: 2018 Survey results

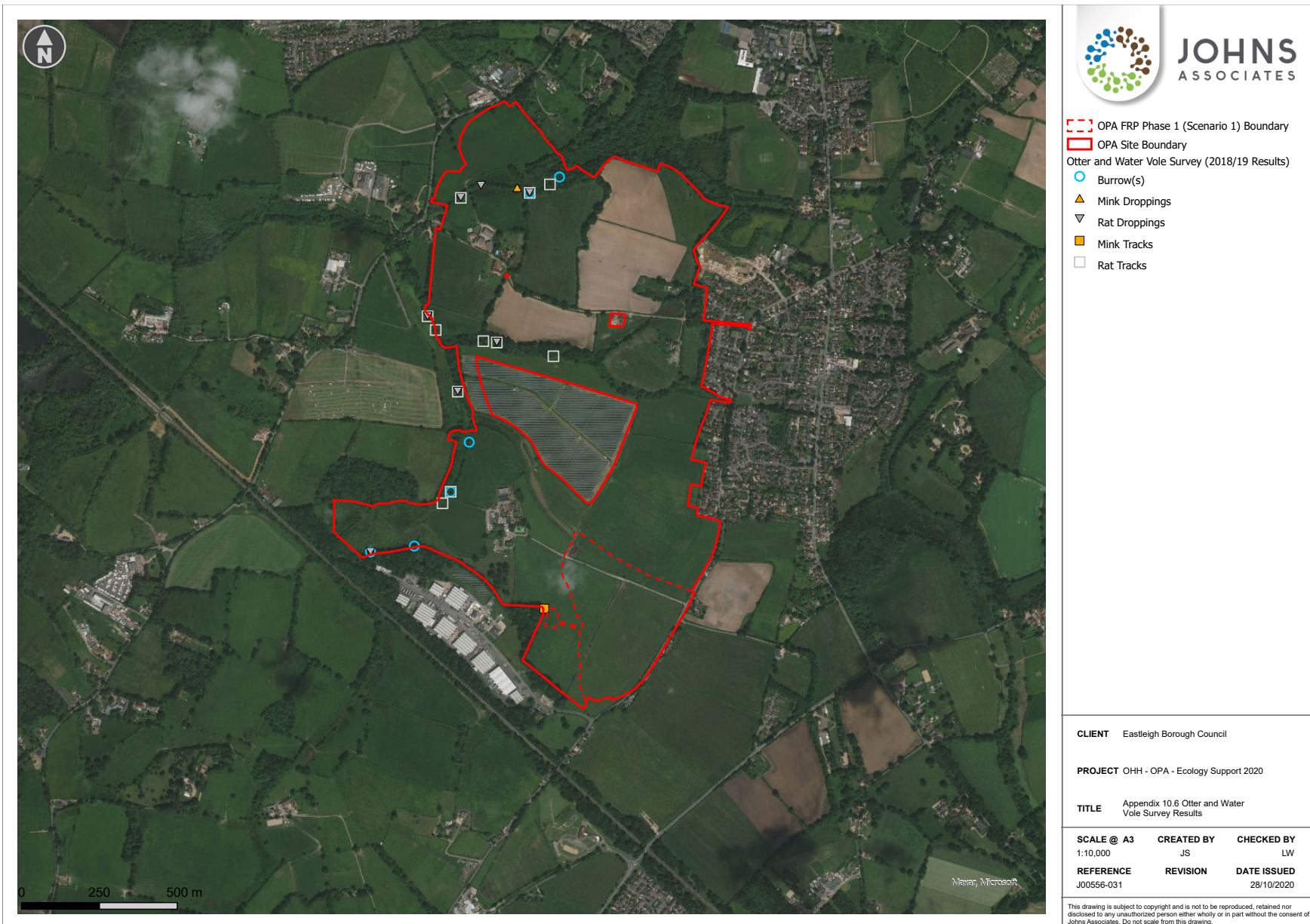
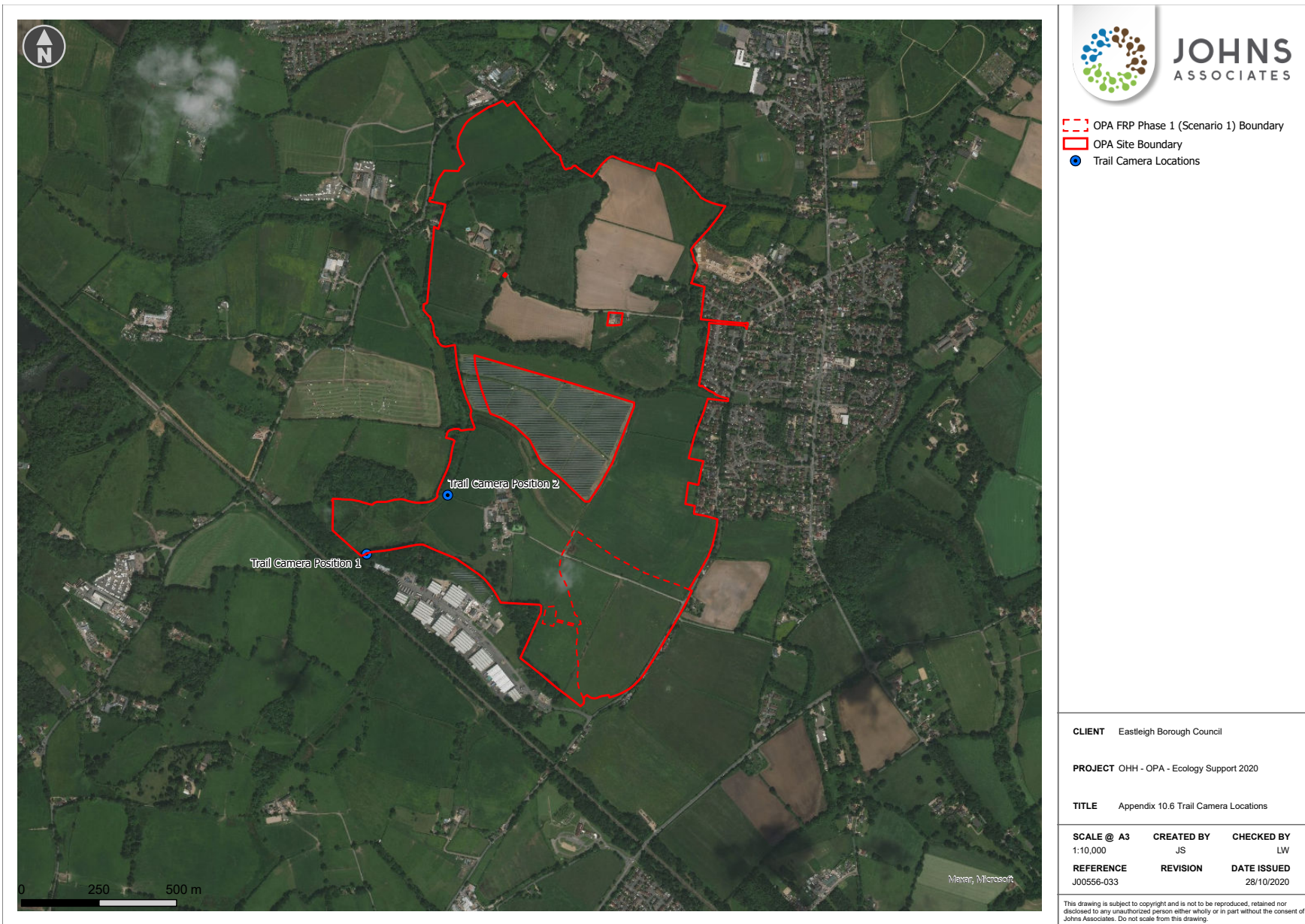


Figure 3: Trail Camera Locations



## 5 CONCLUSIONS

The field survey concluded that otter and water vole are unlikely to be present on site. Historic surveys suggest that both species have been present on site however, due to the deterioration of suitability of the watercourses and grazing pressure, it is likely that these species are largely absent from the site. The site does not support breeding populations of these species and the value of the site is considered to be limited to that of a connective function within the wider landscape.

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