

- Aerial photography.

Copies of OS and County Series maps are included in the environmental database report in **Appendix E** together with other details of the development history of the site. Reference to historical maps provides invaluable information regarding the land use history of the site, but historical evidence may be incomplete for the period pre-dating the first edition and between successive maps.

The development history of the site and surrounding area from the above sources is detailed in **Table 4**.

Table 4: Summary of historical development

Date	Land use/features on site	Land use/features in vicinity of site
1874-1912	The site comprises of an open field with a few trees in the north-eastern corner An unspecified tank is shown in the north of the site although is believed to be a water tank given that is located within a field	Walberton village located directly to the southwest with a nursery, school, post office, Hollytree Inn, windmill-pumping house and Baptist Chapel present. Avisford House is observed 100m to the north east of the site A gravel pit is located 800m to the north west
1912-1939	The site comprises of an open field with some trees. Unspecified tank no longer present	Residential development in Walberton along Dairy Lane (100m to the south west), The Street and Avisford Park Road (10m to the south east). Development of Pigeonhouse Farm 200m to the south west Redevelopment of Avisford House
1974-1984	The site comprises of an open field with most of the previously identified trees having been removed	Residential housing developed along new roads such as Homefield Crescent, Pound Road, The Meadows and Parsons Walk 100m to the south west of the site. Residential housing was developed 100m to the south east of the site. Walberton and Binstead School with playing fields are developed directly south of the site Works and an electrical substation are both observed along the south west boundary of the site. A road developed off Tye Lane leading to Hooe Farm 300m to the north west.
1992-2000	The site comprises of an open field	Engineering works is now identified as a works present 500m to the north west Drain located 150m to the north west of the site.
2000- present day	The site comprises of an open field	The pond and stream is adjacent to the northern boundary of the site. Hooe Farm Industrial Estate is now observed 300m to the north west.

3.6 Sensitive land uses

No national or internationally designated sensitive land uses such as sites of special scientific interest (SSSI) were identified in the vicinity of the site. However, Ancient and Semi-Natural Woodland is present 230m north of the site.

A comprehensive evaluation of ecological receptors is outside the scope of this report.

3.7 Local Authority Environmental Health Department information

The Environmental Health Department (EHD) of Arun District Council has no records of contamination issues or specific incidents in connection with the site.

The District Council has not identified the land as potentially contaminated and has confirmed that there are no closed, licensed or unlicensed landfill sites within a 250m radius of the site.

Arun District Council has identified a registered private water supply 1.5km from the site at Havenwood Caravan Park, grid ref 498920 107165.

A copy of the EHD response is included in **Appendix F**.

3.8 Initial conceptual model

The information presented in **Sections 2** and **3.1** to **3.7**, has been used to compile an initial conceptual model. The identified potential sources of contamination, associated contaminants and receptors have been considered with plausible pathways that may link them.

The resulting potential pollutant linkages are considered in **Section 3.8.4**. The risk classification has been estimated in accordance with information in **Appendix D**.

3.8.1 Summary of potential contaminant sources

Potential sources and contaminants of concern are summarised in **Table 5** on the following page.

Table 5: Potential sources and types of contamination

Potential sources	Contaminants of concern
On-site historical	
Open Fields	No current potential sources have been identified
On-site present day	
Open Fields	No current potential sources have been identified
Off-site	
Potential asbestos containing material on shed roof along the southern boundary	Asbestos containing materials
Electric substation to south west of the site	Polychlorinated Biphenyl's (PCB's) and Semi-

Potential sources	Contaminants of concern
boundary1974- present day	volatile Organic Compounds (SVOC's)

No current or former on-site sources of potential contamination have been identified.

Whilst two potential point sources off-site contamination have been identified, these are not considered represent a significant risk under normal operating conditions.

3.8.2 Sensitive receptors

Sensitive receptors at this site that may be exposed to contamination where pathways exist include:

- Future site residents/users;
- Adjacent site users/residents;
- Vegetation and other ecological receptors;
- Potable water supply pipes; and
- Controlled water (groundwater in Secondary A Aquifer and surface water in adjacent ponds).

Please note that construction workers have not been identified in the conceptual model as receptors because risks are considered to be managed through health and safety procedures including CDM regulations.

3.8.3 Summary of plausible pathways

Plausible pathways via which contamination may migrate to impact sensitive receptors are summarised below:

- Direct contact (soil, dust and vegetable ingestion, dermal contact, dust and fibre inhalation);
- Ground gas and soil gas inhalation;
- Vertical and lateral migration including leaching;
- Root uptake; and
- Chemical attack of infrastructure (including water supply pipes) and buildings.

3.8.4 Potentially complete pollutant linkages

The information in this report suggests that there are no potentially complete pollution linkages related to the site.

Whilst two off site sources of potential contamination have been highlighted in section 3.8.1 (a shed containing suspected asbestos containing materials and a substation to the south-west of the site) these features are not considered to pose a significant risk to the site under normal operating conditions

4 CONCLUSIONS

To summarise, despite the preliminary outline conceptual model identifying possible pathways for contamination to migrate and sensitive receptors potentially at risk, no evidence of probable ground contamination on the site was identified. Plausible pollutant linkages are therefore not deemed to exist.

The preliminary findings suggest that the site is unlikely to be classified by the local authority as 'Contaminated Land' under the current contaminated land regime (Environmental Protection Act 1990: Part IIA).

Given the proposals to develop the site for a sensitive residential end use, it is recommended that intrusive investigation be carried out comprising shallow trial pits and/or drive in sampler boreholes to assess the nature of the near surfaces soils and associated hydrogeological setting together with the potential for ground gas generation.

The investigation would also enable information on ground conditions to be ascertained to aid foundation design. Where the presence of significant desiccation is encountered deeper investigation may be required to confirm an appropriate foundation solution.

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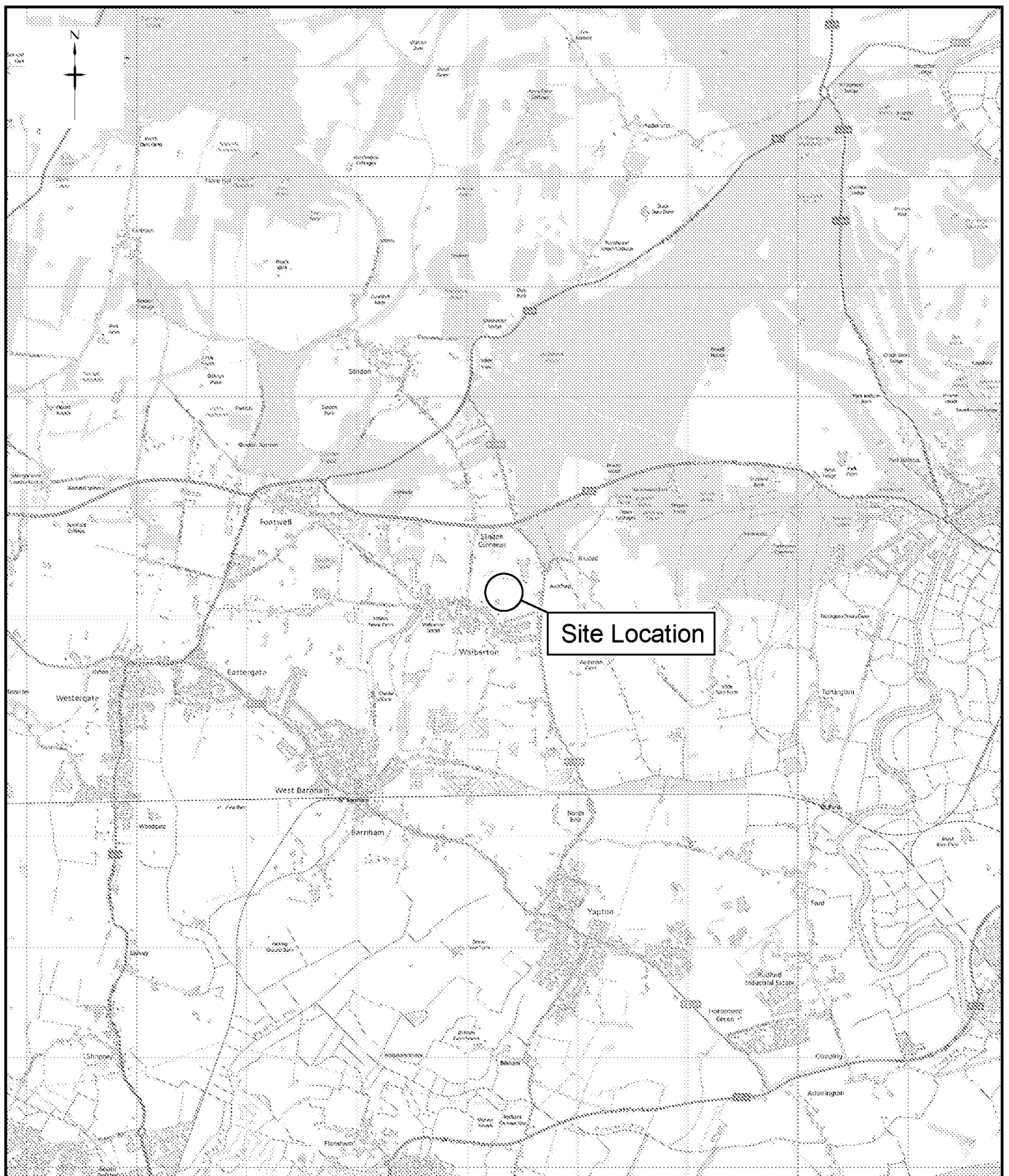
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FIGURES



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THE STREET ARUNDEL, WELBERTON

Drawing Title

SITE LOCATION MAP

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00	AP	08.05.17	SJ	08.05.17	SJ	08.05.17
Dimensions		Scale		Original Size		
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