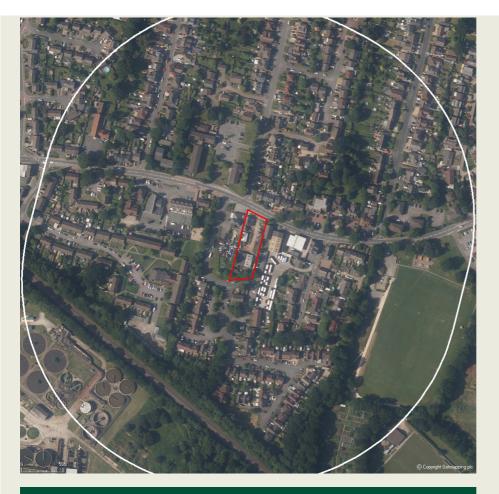


# Phase One Planning Preliminary Environmental Risk Assessment



#### Overview



Planning Issues

## IDENTIFIED

This report is issued for the Site described as:

92, Yorktown Road, Sandhurst, GU47 9BH

Report Reference AEL-4491-PP1-990623

Customer Reference N/A

Report produced on 03//04/2020

Current use Disused blacksmiths

Proposed use Residential flats and garden

Report written by Teree Scott BSc (Hons) MSc PIEMA

Technical review by Sam Hackett Bsc (Hons) MSc MIEnvSci

Report approved by Constance Alderson Blench BA (Hons) PIEMA EA

### CONTACT DETAILS

If you require assistance please contact your consultant on:

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or by email at: orders@argyllenviro.com

## Recommendations



1. The Phase I should be submitted to the Local Authority for consideration.

2. A Phase II Investigation should be undertaken at the Site to identify whether any contaminants associated with the former use as a blacksmiths are within the soil/controlled waters at unacceptable levels. Following this investigation, if necessary, remediation should be carried out to remove any identified issues. The Phase II should provide general characterisation, as well as target specific areas, such as proposed gardens. The Local Authority should be consulted regarding the scope of this investigation.

3. Before any structural work begins, a refurbishment and demolition asbestos survey must be carried out to identify the presence and extent of all Asbestos Containing Materials (ACMs). Areas concerned should be marked out, labelled and left undisturbed whilst awaiting demolition, and appropriate signs put in place to warn

third parties of the presence of asbestos. In addition, demolition and removal of the ACMs should be carried out by an appropriate contractor with the relevant licences for the removal and transportation of asbestos waste.

4. Upon completion of the above steps, if any contamination is identified during redevelopment, all work must cease and you must alert the Local Authority.

# **Executive Summary**

Argyll Environmental Limited (AEL) was commissioned by Phillip Doudney, to conduct a Phase One Preliminary Environmental Risk Assessment for 92, Yorktown Road, Sandhurst, GU47 9BH (the Site). This report presents the key findings and potential environmental liabilities identified during the assessment.

## Key findings

#### Introduction

The Site located at 92, Yorktown Road, Sandhurst, GU47 9BH is currently a disused blacksmiths and house. We have been advised by the Client that the land is to be redeveloped for residential use. The client is currently in the process of submitting outline planning for the Site.

#### Site History

A review of historical maps from 1871 indicates that the Site was occupied by open land with a drainage channel in the south until c.1896 when an assumed residential property was developed in the north west. This building appeared to be divided into two c.1911, when part of it was labelled a blacksmiths, with an outbuilding located to the south. A further building was identified in the north east c.1930. Information from the client revealed this was a residential property.

In the 1965 mapping, the properties were know as Montreal Cottage and North Repps, with an outbuilding developed at North Repps, and the outbuilding at Montreal Cottage extended. These labels had been removed by the 1971 mapping.

Between 1971 and 1978, additional outbuildings had been developed in the centre east and south west, with one of the outbuilding extended. Whilst some of these outbuildings are likely to have been associated with the residential properties, the remainder are likely to have been associated with its use as a blacksmiths. By 1993 three of the outbuildings had been demolished and an assumed workshop constructed in the south west. Sometime after 2006 mapping, the footprint of the workshop increased in size and the house in the north east had been demolished.

Information from the Site representative indicates the Site has been in use as a blacksmiths since as early as the 1800s, and remained as such until approximately 2 years ago when it became disused.

#### Sources of contamination

The following potentially contaminative sources of concern have been identified at the Site:

- Blacksmiths c.1800s-2018
- Made Ground
- Superficial deposits: Alluvium
- Potential for Asbestos Containing Materials (ACMs) in building fabric

The following potentially contaminative sources of concerns have been identified in proximity to the Site:

- A garage 25m east c.1965; later a petrol station from at least c.1992-2020
- A plant nursery adjacent west c.1971 until at least 2009 and further nurseries from 14m south east c.1896-1930
- A coach yard 10m east c.1993-2020
- A railway 130m south west c.1877-2020
- Sewage works 170m south west c.1961-2020

#### Conclusion

Contaminant linkages have been identified that may impact the proposed re/development. The risk under the planning regime (NPPF) is therefore considered to be moderate. It is likely that the Local Authority will require further investigation as part of the proposed redevelopment. Please refer to page 2 for recommendations.

## **Overall Planning Risk Assessment**

## Moderate

Note: This Executive Summary forms part of AEL's Phase One Preliminary Environment Risk Assessment (Ref. AEL-4491-PP1-990623) and should be read in conjunction with the body of the report.



## Understanding this report

This report is a Phase One preliminary risk assessment with walkover survey. which is compliant with Contaminated Land Report (CLR) 11 Model Procedures for the Management of Land Contamination. The report identifies potential land quality issues associated with the proposed re/development. The works were completed in accordance with AEL's Conditions of Contract for Environmental Consulting Services version 2.0.<sup>1</sup>

# 1. Introduction

#### Scope of Works

The agreed scope of works and the data sources included in this assessment are detailed below:

- A review of the historical development of the Site and surrounding area, by reference to current and historical Ordnance Survey maps and plans and other sources of historical information (e.g. aerial photographs where available);
- A review of information contained within a Landmark environmental data pack and other relevant environmental information held on publicly available databases (including environmental permits and licences, discharge consents, pollution incidents, waste management facilities, etc.);
- Targeted regulatory consultation with the Environmental Health Department and Planning Departments (and any other statutory bodies as required, potentially including the Environment Agency (EA) and Petroleum Licensing Authority);
- A study of the environmental sensitivity of the Site, with reference to the local geological, hydrological and hydrogeological setting from BGS and EA information;
- Review of existing (e.g. Phase 2) reports and correspondence if appropriate and limited to 3hrs;
- A site walkover inspection and discussions with current owner (where available) by an PIEMA accredited environmental auditor;
- The derivation of a Conceptual Site Model (CSM), identifying potential contaminant linkages at the Site based on Contaminated Land Report (CLR11);
- The provision of a fully interpretative report, including a qualitative risk assessment to determine if further investigations are required under the planning regime and to protect clients from any future liabilities. The report will include an executive summary identifying key issues and detail 'next step' recommendations.

<sup>&</sup>lt;sup>1</sup> Please refer to the Methodology section at the end of this report for more details

#### Overview of planning application

It is understood that there are proposals to redevelop the Site from a disused blacksmiths to residential use. The client is currently in the process of submitting outline planning for residential flats. Proposed plans indicate two flat blocks in the south. A further flat block is proposed in the north (total of 15 flats). Car parking is proposed in the centre, along with gardens in the north and south.

Therefore in the first instance a Phase One Preliminary Risk Assessment should be undertaken. To satisfy national guidance, the Phase One Preliminary Risk Assessment should include a site reconnaissance with photographs, a full history of the Site and surrounds including the environmental setting of the Site and a preliminary conceptual site model and associated risk assessment.

# 2. Historical Review

AEL has reviewed available historical Ordnance Survey maps and pre-Ordnance Survey (County Series) maps plus recent aerial photography for the Site and surrounding area. This information, in conjunction with historical data provided by the Local Authority Environmental Heath & Planning Departments and information from the site visit, has been used to develop a description of the Site and the surrounding area.

## 2.1 Summary of Site and Surrounding Area

#### On Site

A review of historical maps from 1871 indicates that the Site was occupied by open land with a drainage channel in the south until c.1896 when an assumed residential property was developed in the north west. This building appeared to be divided into two c.1911, when part of it was labelled a blacksmiths, with an outbuilding located to the south. A further building was identified in the north east c.1930. Information from the client revealed this was a residential property.

In the 1965 mapping, the properties were know as Montreal Cottage and North Repps, with an outbuilding developed at North Repps, and the outbuilding at Montreal Cottage extended. These labels had been removed by the 1971 mapping.

Between 1971 and 1978, additional outbuildings had been developed in the centre east and south west, with one of the outbuilding extended. Whilst some of these outbuildings are likely to have been associated with the residential properties, the remainder are likely to have been associated with its use as a blacksmiths. By 1993 three of the outbuildings had been demolished and an assumed workshop constructed in the south west. Sometime after 2006 mapping, the footprint of the workshop increased in size and the house in the north east had been demolished.

Information from the Site representative indicates the Site has been in use as a blacksmiths since as early as the 1800s, and remained as such until approximately 2 years ago when it became disused.

#### Surrounding Area

The surrounding area was largely vacant from the first map edition in 1871, with assumed residential properties from 90m east and a railway line on an embankment from 130m south west. By 1896, residential properties were developed from adjacent east, alongside an area of plant nurseries from 14m south east. The development of housing gradually occurred to the north and east, with the nurseries cleared c.1930.

Further housing development had occurred in the wider area to the north and west c.1965 with a sewage works located from 170m south west, with filter beds and tanks noted c.1965. In addition, Deepnell garage was located 25m east. The footprint of the garage changed c.1971, and at this point, a plant nursery was also located adjacent west. By 1992, the aforementioned garage included a canopy, so it can be assumed this included petrol filling facilities.

Sometime in the early 2000s, additional housing had been developed form adjacent south east.

Information from recent satellite imagery and the site visit has revealed that the petrol filling station and the sewage works remain.

# 3. Site Location and Setting

The Site (2039.94m<sup>2</sup>) is located at (92, Yorktown Road, Sandhurst, GU47 9BH). Adjacent and nearby surrounding land uses include:

Direction	Current Surrounding Area
North	Yorktown road borders the north of the Site, with residential buildings and gardens from 10m north onwards. A library is located from 33m north west with an associated car park to the rear.
South	The drainage channel located in the south of the Site, extended off-site to the south, becoming culverted underneath the railway line 130m south west. This area before the railway line is generally in residential use, with a sewage works 170m south west and an assumed floodplain associated with Blackwater River from 200m south.
East	A residential property is located adjacent east of the Site. Beyond this is a coach yard and associated buildings 10m east, a petrol filling station 25m east, housing from 31m east, and then a recreation ground 130m east.
West	A commercial blinds and curtains shop is located adjacent west, which leads on to Coachmans Grove. Further commercial and then residential properties are located from 44m west onwards.

# 4. Site Inspection

A Site walkover was undertaken by Teree Scott and Matt Wagstaff on 21<sup>st</sup> February 2020 and the findings are summarised below:

Site Description	
General description	The Site is currently a disused blacksmiths, with disused machinery, storage of chemicals/fuels and waste areas. The Site representative indicated that it was in use as a blacksmiths from as early as the 1800s, until approximately 2 years ago. We were also informed that they manufactured steel beams, which included welding and fabrication processes. The Site is accessed via Yorktown Road to the north. The Site visit revealed the storage of a number of disused chemicals/fuels and waste items. These include, but are not limited to: multiple 2051 metal and plastic drums (some of which contained oil), a number of smaller 5-251 containers for items such as grease and hydraulic oil, steel beams, generators, gas cylinders including Acetylene. Furthermore, the site visit revealed evidence of oily spills/puddles, particularly in the west of the Site, which is potentially the result of disused metal drums being left to degrade since the blacksmiths became disused.
	this part of the Site.
	Argyll have not been provided with service plans for the Site, however the Site representative reported that each flat block will be connected to mains gas, electricity and water supply.
	<image/>

#### Site Description

Buildings and infrastructure

The Site is occupied by three main buildings:

1. In the north west is a brick house, built in the late 1800s, with extensions in 1980s according to the Site representative.

2. In the south is a workshop - brick built and single storey, with a corrugated steel roof. According to mapping, it was built between the 1970s and early 1990s. This has a steel frame lean-to structure attached to it. Both were laid to good quality hard-standing. They contained machinery and tools such as rolling machines, cutting machines and various small quantities of chemicals/fuels such as greases and hydraulic oil. A digger was also noted. Steel beams and metal shavings were observed in the workshop.

3. In the central west of the Site is a further workshop/storage unit, with a derelict steel frame structure attached to the building. This is metal clad construction and single storey, built in the 1990s according to mapping. This also contained machinery and tools.

Two metal containers were identified in the north east of the Site, one of which was empty upon inspection and the other was locked. A further metal container was identified in the south western corner of the Site which was also inaccessible.





The house in the north west.



Workshop in the south.

Rolling and cutting machines in workshop in the south.

### Site Description

Site topography

The Site and surrounding area appeared to be relatively flat.

# Surface conditions

Areas of soft landscaping/topsoil were noted in the north east, south, and some central areas. Rubble/stones/bricks and areas of exposed soil/grass were also noted along the eastern boundary. The remainder of the Site and building surfaces comprise of concrete hard-standing. The quality of the hard-standing was good inside the buildings, but poor in parts of the yard, with evidence of cracks and vegetation growth. Finally the site visit revealed evidence of oily spills/puddles, particularly in the west of the Site.

Vegetation	Areas of soft la	andscaping and vegetation growth a	are described in the surface conditions

Vegetation	Areas of soft landscaping and vegetation growth are described in the surface conditions section above. In addition to this, areas of overgrown vegetation comprising of brambles and bushes were noted along the southern boundary, with two mature trees along the eastern boundary and one in the south eastern corner.
Drainage	Argyll have not been provided with service plans for the Site, however the client confirmed that the flats will be connected to the sewer network.
	No surface water drains were observed during the site visit, but due to the quantity of material being stored on-site, and the overgrown nature of some sections of the Site, drainage could not be confirmed.

Sources of Contamination			
Source	Description		
Above-ground Storage	Age: Unknown		
Tank 1	Condition: poor		
	Volume: Assumed c.500 litres		
	Contents: according to Site representative, the tank is empty, but previously contained fuel (assumed diesel) for vehicles on-site (such as forklift trucks)		
	Type: assumed single skin		
	Construction: steel		
	The tank is located along the central eastern boundary of the Site, atop a metal container. There was evidence of damage to the tank and corrosion. A pump was attached.		
	During the site visit, it was situated atop concrete hard-standing, but there was evidence of vegetation growth, suggesting cracks in some parts of the hard- standing. Some minor staining was also observed.		

#### Sources of Contamination

Above-ground Storage Tank 2 Age: Unknown Condition: poor

Volume: Assumed c.1000 litres

Contents: according to Site representative, the tank is empty, but previously contained diesel to fuel generators/machinery

Type: assumed single skin

Construction: steel

The tank is located in the southern half of the Site along the western boundary; adjacent to the central workshop. The tank was sited atop bricks and there was evidence of corrosion.

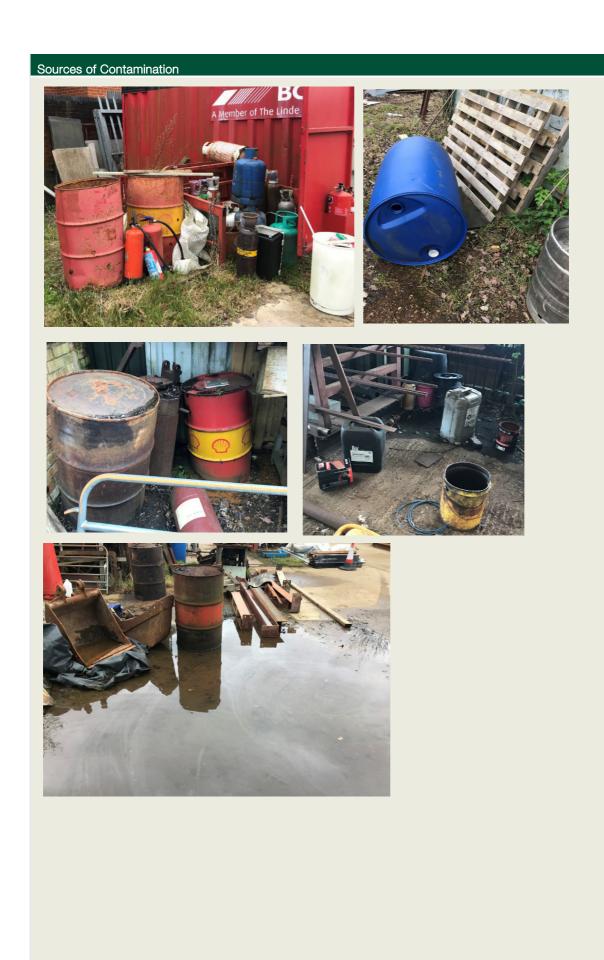
During the site visit, it was situated atop concrete hard-standing, but there was evidence of vegetation growth suggesting cracks in some parts of the hard-standing.



Tank 2

Tank 1

Storage of other hazardous chemicals and hazardous waste The Site visit revealed the storage of a number of disused chemicals/fuels and waste items. These include, but are not limited to: multiple 205l metal and plastic drums (some of which contained oil), a number of smaller 5-25l containers for items such as grease and hydraulic oil, steel beams, generators, gas cylinders including Acetylene. Furthermore, the site visit revealed evidence of oily spills/puddles, particularly in the west of the Site, which is potentially the result of disused metal drums being left to degrade since the blacksmiths became disused.



# Sources of Contamination Made Ground The majority of the Site is laid to concrete hard-standing, presumed to be underlain by made ground. The made ground may contain materials that include heavy metals and asbestos. Some buildings have been demolished over time, with evidence of a concrete slab in the north east, which remains from a demolished house. In addition, crushed hardcore comprised of brick/rubble/stone was observed in the east of the Site. Image: State of the Site of the Site of the Site of the Site. Image: State of the Site of the S

# 5. Regulatory Authority Consultation

Statutory bodies and authorities have been consulted as part of this assessment. Responses are summarised in the table below:

Regulatory Authority	Response
Environmental Health Department	Enquires were directed to the Bracknell Forest Council's Environmental Health Department. A written response was received from Dr Sophie Needs (Environmental Protection Officer) on 03/04/2020:
	<ul> <li>The Site was identified as part of their Contaminated Land Strategy due to its previous use as a smithy, and given a low risk rating.</li> </ul>
	• The Site had an initial desk-based investigation and site walkover, and there are no plans to look into the Site further unless additional information is received.
Online Planning Records	Entries on the online planning platform of Bracknell Forest Council identified the following applications:
	• Ref. No: 02/00795/OUT for outline application for the erection of 1no. building accommodating retail floor space and 8no. flats with associated parking and access to Yorktown Road. This was approved September 2003 with a contaminated land condition (9) requiring a site investigation in order to prevent pollution of groundwater and surface water.
	An environmental report was submitted to the the Local Authority for approval of condition 9 in May 2004. The Local Authority appear to have not accepted the report due to it not meeting the requirements of a phase 1 report.
	• Ref. No: 03/01204/REM for submission of details of design, external appearance and landscaping for the erection of 1no. building accommodating retail (class A1) floor space and 8no. flats with associated parking and access onto Yorktown Road pursuant to outline planning permission 02/00795/OUT. This was approved April 2004, but the contaminated land condition 9 was still outstanding.

# 6. Data Review

AEL reviewed the following data as part of this assessment. A copy is attached in Appendix 1.

## 6.1 Landmark Data

A review of a Landmark data (ref: 234793456-1-1) was undertaken as part of this assessment. Relevant information from the report on Site is summarised below:

According to trade directories, current and recent operations at the Site include ornamental metalwork, which appear to relate to the disused blacksmiths on-site.

In addition a summary of the relevant information from the report in proximity to the Site is as follows:

- Data indicates tanks c.1978 (42m east) and an environmental permit (27m east), both of which relate to the petrol station identified in Section 2.
- According to trade directories, current and recent operations in proximity to the Site include:
  - Blinds, awnings and canopies (12m north), which is likely to relate to a commercial blinds and curtains shop adjacent west.
  - Petrol filling station entries (from 26m east) associated with the filling station from 25m east.
  - Carpet, curtain & upholstery cleaners (27 north) recorded as inactive and is likely to relate to the business owner's home address rather than where operations occur.
  - Car body repairs (56m north) recorded as active and held by Doctor Dent located at 2a The Broadway. Following an internet search, car body repairs do not occur at this property and occur at clients' properties.
  - Electrical engineering (59 east) recorded as inactive and associated with Technology House, 104 Yorktown Road. This relates to a commercial building and so it is assumed that this relates to administrative offices.

# 7. Site Sensitivity

The following information on geology, hydrogeology and hydrology was obtained from available maps and reports.

## 7.1 Geology

The BGS online geological map viewer and available borehole data in the vicinity of the Site indicates that the Site is underlain by the following geological sequence:

Geological Unit	Description	Anticipated Thickness	Permeability
Made Ground			
Made Ground	A mixture of concrete, loose stone/gravel/brick and areas of topsoil over an assumed made ground of variable composition	Anticipated to be <1m	Variable
Superficial Deposits			
Alluvium	Clay, Silt, Sand and Gravel	Unknown	Moderate
Solid Geology			
Windlesham Formation	Sand, Silt and Clay	Unknown	Moderate

AEL reviewed BGS borehole data in the vicinity of the Site. This identified information regarding the geological sequence at the Site;

- Borehole Ref. SU86SW212 is located 55m south west. This identified Topsoil to 0.15m below ground level (bgl); loose brown sandy gravelly Fill to 0.9mbgl, turning grey to borehole completion at 1.3mbgl. Water was not struck.
- Borehole Ref. SU86SW213 is located 80m south east. This identified Topsoil to 0.3mbgl; silty clayey SAND to 0.9mbgl, very sandy GRAVEL to 1.8mbgl, and very silty sandy GRAVEL to borehole completion 2.5mbgl. Roots were found down to 400mm, and water was struck at 1.4mbgl.

## 7.2 Hydrogeology

Aquifer designation	Description	Permeability
Superficial deposits an	d Bedrock geology	
Secondary Aquifer - A	These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.	Moderate

There is one groundwater abstraction point within 1000m of the Site:

Operated by Mr A I Johnstone under licence number 28/39/24/0219, for general farming and domestic use, located 679m west.

Shallow groundwater in the Site area is anticipated to flow in a southerly direction, towards The Blackwater River approximately 330m south.

The Site does not lie within a Source Protection Zone.

## 7.3 Hydrology

The nearest water feature is a drainage channel along the southern border of the Site. The nearest main watercourse is Blackwater River approximately 330m south.

There are currently no licensed surface water abstractions located within 1000m of the Site.

## 7.4 Sensitive Land Uses

The following designated eco-receptors were identified within 1000m:

- Blackwater Valley Site of Special Scientific Interest located 389m south
- Sandhurst To Owlsmoor Bogs And Heaths Site of Special Scientific Interest located 845m north east, and
- Thames Basin Heaths Special Protection Area located 845m north east.

In addition, the nearest residential property is located adjacent east.

Furthermore, the Site is to be redeveloped and therefore ground workers and end users (residents) are considered to be sensitive receptors.

# 8. Risk Assessment

The following Conceptual Site Model (CSM) comprises an evaluation of the findings detailed in the previous sections of this report and outlined in the scope of works described in section 1.

## 8.1 Conceptual Site Model: Outline

The potential for an environmental risk to be present is assessed qualitatively using the contaminant-pathway-receptor concept introduced by Part 2A of the Environmental Protection Act 1990.

The National Planning and Policy Framework (NPPF) details re/development should prevent unacceptable risks from pollution and should ensure that new development is appropriate for its location and its new use and to such a standards that the Site cannot meet the definition of "Contaminated Land".

In accordance with the above and CLR 11, Model Procedures for the Management of Land Contamination, the following tabulated discussion is based on the observations gathered from the Site inspection and evaluation of the other available information.

## 8.1.1 Potential Contamination Sources

On Site Contamination Sources Identified	Associated Contaminants
Historic and Current	
Blacksmiths c.1800s-2018	Hydrocarbons such as Polycyclic Aromatic and Petroleum Hydrocarbons (PAHs and PHs), Volatile Organic Compounds (VOCs), heavy metals, acids/alkalis, ash, and clinker.
Made Ground	Asbestos, ash, clinker, heavy metals, PAHs and PHs, sulphates, VOCs and ground gas (Carbon dioxide and Methane) from the decomposition of organic matter.
Superficial deposits: Alluvium	Ground gases from the decomposition of organic matter.
Potential for Asbestos Containing Materials (ACMs) in building fabric	Asbestos
Off Site Contamination Sources Identified	Associated Contaminants
Historic and Current	
A garage 25m east c.1965; later a petrol station from at least c.1992-2020	Hydrocarbons including PAHs and PHs (fuels), VOCs including solvents, Additives (MTBE), and heavy metals
A railway 130m south west c.1877-2020	Hydrocarbons including PAHs, solvents, ash, clinker, heavy metals, herbicides, asbestos, sulphates
Sewage works 170m south west c.1961-2020	Sewage, fungi/microbes, algae
A plant nursery adjacent west c.1971 until at least 2009, and further nurseries from 14m south east c.1896-1930	Pesticides, herbicides, fertilisers, PAHs and PHs.
A coach yard 10m east c.1993-2020	Hydrocarbons including PHs and PHs (fuels), VOCs including solvents, PAHs, Additives (MTBE), acids/alkalis, and heavy metals

## 8.1.2 Pathways considered

- 1. Dermal contact
- 2. Ingestion
- 3. Inhalation
- 4. Diffusion
- 5. Surface run off drainage
- 6. Vertical migration
- 7. Lateral migration
- 8. Plant uptake
- 9. Building contact

## 8.1.3 Potential Receptors

Potential Receptors	Comments
Site users	Proposed Site users include ground workers during re/development and future end users (residents).
Hydrogeology	The superficial deposits beneath the Site [Alluvium] and the bedrock geology [Windlesham Formation] are both classified as a Secondary (A) Aquifers and are expected to have a moderate permeability.
	The Site does not lie within a Source Protection Zone.
	There is one groundwater abstraction point within 1000m of the Site: operated by Mr A I Johnstone under licence number 28/39/24/0219, for general farming and domestic use, located 679m west.
Hydrology	A drainage channel forms the southern border of the Site.
	There are currently no licensed surface water abstractions located within 1000m of the Site.
Eco receptors	The following designated eco-receptors were identified within 1000m:
	Blackwater Valley Site of Special Scientific Interest located 389m south,
	<ul> <li>Sandhurst To Owlsmoor Bogs And Heaths Site of Special Scientific Interest located 845m north east, and</li> </ul>
	Thames Basin Heaths Special Protection Area located 845m north east.
Third parties	The nearest residential property is located adjacent east.

## 8.2 Conceptual Site Model: Tabular Summary

Plausible pathway present

Contaminants	Organic Contaminants	Inorganic Contaminants	Ground Gases and VOCs	Acid/Alkali
Receptors				
Site users		A 10 A		
Groundwater				
Surface water				
Eco receptors				
Third parties				
Ground workers		×		
Buildings			Image: A state of the state	
/Services				

#### 8.3 Conceptual Site Model: Risk Assessment

Based on our evaluation of the CSM and all available information gathered during this study, AEL's qualitative risk assessment focuses on below ground contamination issues and indicates:

Contaminant	Pathway	Receptor	Risk
Blacksmiths c.1800s-2018	Ingestion	Site users	Moderate
Hydrocarbons such PAHs	Dermal contact	Groundwater	
and PHs, VOCs, heavy metals, acids/alkalis, ash, and clinker	Inhalation	Surface water	
	Lateral migration	Third parties	
	Vertical migration	Buildings/services	
	Surface water run off		
	Plant uptake		
	Building contact		

Historical mapping revealed that the Site has been occupied by a blacksmiths from c.1911, although information from the Site representative indicated that it was in this use from as early as the 1800s. The blacksmiths has been disused for the last 2 years, but whilst operational, information from the client suggests they manufactured steel beams, which included welding and fabrication processes. From the site visit, a number of cutting and rolling machines were noted, as well as two above-ground storage tanks in poor condition. Information from the site representative suggested one of the tanks previously contained fuel for vehicles (diggers and forklift trucks) and the other contained diesel used to fuel diesel generators/power machinery.

Due to the length of time it has been in use as a blacksmiths (120+ years), and the operations associated with this use, it is likely contamination exists beneath the Site, which could impact identified receptors.

The Site visit also revealed a number of waste items/disused materials across the Site, which should all be removed by a licensed waste management contractor prior to development. These include, but are not limited to, multiple 2051 metal and plastic drums (some of which contained oil), a number of smaller 5-251 containers for items such as grease and hydraulic oil, steel beams, generators, and gas cylinders including Acetylene. Furthermore, the site visit revealed evidence of oily spills/puddles, particularly in the west of the Site, which is potentially the result of disused metal drums left to degrade since the blacksmiths became disused. Areas of staining were also observed within the workshop in the south, and in proximity to the above-ground tanks.

Many of the disused/waste items are situated atop soft landscaped areas or in areas where hard-standing is in poor condition. It is also likely parts of the Site have been soft landscaping since construction of the

blacksmiths. Therefore, any spills/leaks from such containers or previous operations could migrate into the sub-surface soils to impact third parties, or migrate vertically to impact deep groundwater (due to the permeable underlying aquifer).

In addition, a drainage channel is located in the south of the Site, which was not accessible during the site visit. Some waste 205l drums were stored in the proximity to the drainage channel. As such, it is possible contaminants could move via surface run off into the drainage channel, which is connected to a wider network of watercourses, in particular, the Blackwater River approximately 330m south.

Proposed plans indicate gardens in the north and south, which also creates an exposure pathway for future residents to come into contact with contamination. In addition, the installation of building services, in particular the water supply, will be sensitive to any residual contamination in the shallow surface. As the redevelopment includes the breaking of ground; and taking into consideration the fact that the proposed redevelopment is sensitive, an intrusive investigation is required in order to accurately quantify the extent of the potential contamination from the historic use of Site, to ensure the protection of future residents and controlled waters (groundwater and surface water).

Contaminant	Pathway	Receptor	Risk
Blacksmiths c.1800s- 2018	Ingestion Dermal contact	Ground workers Eco receptors	Low to Moderate
Hydrocarbons such PAHs and PHs, VOCs, heavy metals, acids/alkalis, ash, and clinker	Inhalation Lateral migration Plant uptake		

Providing ground workers wear appropriate Personal Protective Equipment (PPE) during the redevelopment, the risk to this receptor is considered minimal.

In addition, the closest eco-receptor is 389m south. So, any associated contaminants are not likely to reach such a distance due to natural attenuation and dispersion within the groundwater. In addition, Blackwater River approx. 330m south lies between the Site and the eco-receptors. This will act as an effective barrier and so a plausible significant contaminant linkage has not been identified.

Contaminant	Pathway	Receptor	Risk
Potential for ACMs in	Inhalation	Site users	Low to Moderate
building fabric		Ground workers	
Asbestos		Third parties	

Due to the age of the buildings on Site, the building fabric could include asbestos containing materials (ACMs). In there current state, such materials are unlikely to present a risk to human health. However, if disturbed during redevelopment, asbestos fibres may be released which could present a risk to site users (including ground workers and future residents) and nearby residents.

As such, a full demolition and refurbishment asbestos survey should be carried out before any refurbishment work is progressed, to confirm the presence of ACMs (or lack of), and make suitable recommendations for removal or making-safe if needed. Any recommendations made within the survey should be followed prior to and during redevelopment of the Site, for the protection of site workers, third parties, and eventual residents.

Finally, ground workers are anticipated to wear appropriate Personal Protective Equipment (PPE) during the redevelopment, which will further reduce the acute exposure potential.

Contaminant	Pathway	Receptor	Risk
Made Ground	Dermal contact	Site users	Moderate
Asbestos, ash, clinker,	Ingestion	Ground workers	
heavy metals, PAHs and	Inhalation	Groundwater	
PHS, sulphates, VOCs and ground gas	Lateral migration	Surface water	
ground gao	Vertical migration	Third parties	
	Surface water run off	Eco receptors	
	Plant uptake	Buildings/services	
	Building contact		

Made ground is a consideration on all brownfield sites and underlies the Site. Some building were demolished over time in mapping. However, there has been no significant repeat demolition and redevelopment of the Site. As such it is unlikely that there will be a sufficient depth of made ground beneath the Site to cause significant issues in relation to contaminants for identified receptors. In addition, the shallow depth of made ground is such that it is not considered likely to act as a significant source of ground gas.

However, the Site visit revealed the storage of a number of disused chemicals/fuels and waste items. These include, but are not limited to: multiple 2051 metal and plastic drums (some of which contained oil), two aboveground tanks, a number of smaller 5-251 containers for items such as grease and hydraulic oil, steel beams, generators, gas cylinders including Acetylene. The Site visit revealed evidence of oily spills/puddles, particularly in the west of the Site, which is potentially the result of some of these disused metal drums and fuel tanks being left to degrade since the blacksmiths became disused. As such, it is likely there is contamination in the made ground from these sources. We are unable to quantify the risk at this level of reporting.

However, the proposals for redevelopment includes ground works. The breaking of ground presents an additional pathway for direct dermal contact with any potentially impacted soils, as well as potential for direct ingestion and inhalation. By ensuring all ground workers wear appropriate Personal Protective Equipment (PPE) during the redevelopment, it will reduce the acute exposure potential.

Contaminant	Pathway	Receptor	Risk
Superficial deposits: Alluvium	Inhalation	Site users	Low to Moderate
Ground gases (Carbon dioxide,	Diffusion	Third parties	
Methane)	Building contact	Buildings/services	
		Ground workers	

The superficial deposits beneath the Site comprise of Alluvium, which is likely to have a high organic content. Degradation of this matter can cause gas generation which could lead to a problem if gases are able to build up in confined spaces.

Whilst the depth of Alluvium at the Site is not known, ground gas generation in natural organic soils is not ongoing or is very low as the gas is historically produced and effectively trapped in pore spaces of the soil. This can be confirmed as part of the intrusive investigation scope. In addition, all ground workers are anticipated to wear appropriate Personal Protective Equipment (PPE) during the redevelopment.

Contaminant	Pathway	Receptor	Risk
Off-site: a garage 25m east c.1965; later a petrol station from at least c.1992-2020	Lateral migration	Site users Ground workers Buildings/services	Moderate
Hydrocarbons including PAHs and PHs (fuels), VOCs including solvents, Additives (MTBE), and heavy metals		Groundwater	

Historical mapping indicates a garage 25m east from at least 1965, at which point it appeared to be a maintenance garage. However, the garage was later redeveloped c.1971 and again c.1992 when it was in use as a petrol station. Due to the appearance of mapping, it is possible the Site could have been in use as a petrol station from as early as the 1970s. Petrol stations are high risk land uses with significant bulk storage of fuel in underground tanks. As such, it is plausible associated contaminants could impact identified receptors, especially due to its proximity to the Site and the permeable Secondary A Aquifer.

As a result, the risk to the development cannot be quantified at this level of reporting, but the aforementioned proposed site investigation can be used to confirm the level of risk from this source.

Finally, by ensuring all ground workers wear appropriate Personal Protective Equipment (PPE) during the redevelopment, it will reduce the acute exposure potential.

Contaminant	Pathway	Receptor	Risk
Off-site: railways, a sewage works, plant nurseries, coach yard Hydrocarbons including PHs and PHs (fuels), VOCs including solvents, PAHs, Additives (MTBE), acids/alkalis, heavy metals, sulphates, herbicides, sewage, fungi/microbes, algae, pesticides, and fertilisers.	Lateral migration	Site users Ground workers Buildings/services Groundwater	Low

Some other current and former industry has been identified in the surrounding area which could impact the Site, including railways (125m south west), a sewage works (170m south west), a plant nursery (adjacent west) and a coach yard (10m east).

However, groundwater flow is anticipated to be in a southerly direction towards the Blackwater River. As such, any contaminants associated with the railways and sewage works are likely to be migrating south, away from the Site.

Whilst a plant nursery was located adjacent from c.1971 (street-level photography suggests disused some point after 2009), this land use was small-scale with only two greenhouses noted, and no tanks were labelled in mapping. Further nurseries were also noted from 14m south east c.1896-1930, but given the length of time since these were cleared, any associated contaminants are likely to have undergone significant degradation.

Furthermore, a coach yard is located 10m east, but aerial photography and mapping does not suggest any significant operations such as re-fuelling. It appears as though the Site is used predominantly as parking for coaches, and if any minor maintenance is taking place, this is likely to be within the workshop building. Finally, this Site is likely to have been situated atop hard-standing since construction, creating a physical barrier to any contaminants entering the sub surface soils and migrating to impact the Site.

## 8.4 Environmental Risk Assessment

Planning Issues	Risk	Comment
Identified	Moderate	The Site has been in use as a blacksmiths for 120+ years, with some evidence of oily spills/staining during the site visit. The Site visit revealed the storage of a number of disused chemicals/fuels, including multiple 2051 metal and plastic drums (some of which contained oil), and two above-ground tanks.
		Due to the sensitive proposed residential use with garden areas, an intrusive investigation should be undertaken to ensure the protection of future residents and controlled waters. Please see page 2 for details on all recommendations.

## **Overall Risk Rating**

Moderate

## **Overall Liability Assessment**

Contaminant linkages have been identified that may impact the proposed re/development. The risk under the planning regime (NPPF) is therefore considered to be moderate. It is likely that the Local Authority will require further investigation as part of the proposed redevelopment. Please refer to page 2 for recommendations.

# Appendix 1 – Environmental Data

## Contents of the Data Section

Tabular Summary	This section presents a tabular summary of information found for the Site and surrounding area. The data is presented in three buffer zones for ease of reference: data found at the Site, from 1-250m and from 251-500m.
	If a database has been searched the number of records found will be displayed under the relevant search band. If a database is not available or has not been searched, this will be represented by the abbreviation N/A under the relevant search band.
Current Land Use	This section provides information on current land uses and is divided into three sections, statutory information, waste and current industrial uses. It is preceded by two maps.
	The accurate large-scale Site Layout Plan confirms the Site boundary with statutory, waste and current land use information presented within 250m.
	The smaller scale map Site Location Map presents the Site's setting and statutory, waste and current land use information within 500m of the Site boundary.
Statutory Information	This section presents detailed statutory information for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
Waste	This section presents detailed information on waste and landfill sites for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
Current Industrial Land Use	This section presents detailed information on current land use for the Site and surrounding area (0-250m). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
Historical Land Use	This section presents selected information on historical land use for the Site and surrounding area (0-500m). These features are not mapped. A table listing the historical maps used in the risk assessment is also provided.
Aquifer Designations and Geology	This section is preceded by two maps that present information relating to the aquifer designations beneath the Site. The first of these maps indicates the designation of the Superficial geology. The second map presents the aquifer designation of the solid geology.
	These maps are followed by detailed information in relation to aquifer designations/groundwater vulnerability and geology at the Site and surrounding area (0-500m).

Environmental Sensitivity	This section presents detailed information on the environmental sensitivity of the Site and surrounding area (up to 500m depending upon dataset) and is preceded by two maps. The first shows areas with statutory designations, the second shows source protection zones. The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
Natural and Mining Related Hazards	This section contains information on natural and mining related hazards which may affect the Site. These include subsidence, radon and mining.
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# Tabular Summary

Statutory Information	On-site	1-250m	251-500m
Local Authority Pollution Prevention and Controls	0	1	2
Local Authority Integrated Pollution Prevention and Controls	0	0	0
Integrated Pollution Controls	0	0	0
Integrated Pollution Prevention And Control	0	0	0
Registered Radioactive Substances	0	0	0
Discharge Consents	0	0	14
Water Industry Act Referrals	0	0	2
Control of Major Accident Hazards Sites	0	0	0
Explosive Sites	0	0	0
Notification of Installations Handling Hazardous Substances	0	0	0
Planning Hazardous Substance Consents	0	0	0
Contaminated Land Register Entries and Notices	0	0	0
Local Authority Pollution Prevention and Control Enforcements	0	0	0
Enforcement and Prohibition Notices	0	0	0
Planning Hazardous Substance Enforcements	0	0	0
Substantiated Pollution Incident Register	0	0	1
Prosecutions Relating to Authorised Processes	0	0	0
Prosecutions Relating to Controlled Waters	0	0	0

Waste	On-site	1-250m	251-500m *(501 - 750m)
BGS Recorded Landfill Sites	0	0	0 (0) *
Integrated Pollution Control Registered Waste Sites	0	0	0
Licensed Waste Management Facilities (Landfill Boundaries)	0	0	0
Licensed Waste Management Facilities (Locations)	0	0	0 (0) *
Local Authority Recorded Landfill Sites	0	0	0 (0) *
Registered Landfill Sites	0	0	0 (0) *
Registered Waste Transfer Sites	0	0	0
Registered Waste Treatment or Disposal Sites	0	0	0
Historical Landfill Sites	0	0	0

Current Land Use	On-site	1-250m	251-500m
Contemporary Trade Directory Entries	2	10	57
Fuel Station Entries	0	1	1

Historical Land Use	On-site	1-250m	251-500m
Historical Tanks And Energy Facilities	0	7	22
Former Marshes	0	0	0
Potentially Infilled Land (Non-Water)	0	0	0
Potentially Infilled Land (Water)	0	0	0

Groundwater Vulnerability	On-site	1-250m	251-500m
Superficial Aquifer Designations	1	0	0
Bedrock Aquifer Designations	1	0	0
BGS 1:50,000 Bedrock Geology	2	0	1
BGS 1:50,000 Superficial Deposits	2	1	2
BGS 1:50,000 Geological Mapping Coverage	2	0	0
BGS 1:625,000 Solid Geology	1	N/A	N/A
BGS Borehole Logs	0	0	N/A

Environmental Sensitivity	On-site	1-250m	251-500m *(501 - 1km)
Areas of Outstanding Natural Beauty	0	0	0
Environmentally Sensitive Areas	0	0	0
Forest Parks	0	0	0
Local Nature Reserves	0	0	0 (0) *
Marine Nature Reserves	0	0	0 (0) *
National Nature Reserves	0	0	0 (0) *
National Parks	0	0	0
National Scenic Areas	0	0	0
Nitrate Sensitive Areas	0	N/A	N/A
Nitrate Vulnerable Zones	0	N/A	N/A
Ramsar Sites	0	0	0 (0) *
River Quality Biology Sampling Points	0	0	1
River Quality Chemistry Sampling Points	0	0	0
Nearest Surface Water Feature	1	0	0
Sites of Special Scientific Interest	0	0	1 (1) *
Special Areas of Conservation	0	0	0 (0) *
Special Protection Areas	0	0	O (1) *
Water Abstractions	0	0	O (1)*
Source Protection Zones	0	0	0

Natural and Mining Related Hazards	On-site	1-250m	251-500m
Collapsible Ground Stability Hazards	1	1	N/A
Compressible Ground Stability Hazards	1	1	N/A
Ground Dissolution Stability Hazards	1	0	N/A
Landslide Ground Stability Hazards	1	0	N/A
Running Sand Ground Stability Hazards	1	1	N/A

Natural and Mining Related Hazards	On-site	1-250m	251-500m
Shrinking or Swelling Clay Subsidence Hazards	1	0	N/A
Non-Coal Mining Hazards	0	0	N/A
Radon Potential	1	N/A	N/A
Radon Protection Measures	1	N/A	N/A
Brine Compensation Areas	0	N/A	N/A
Coal Mining Affected Areas	0	N/A	N/A
Natural and Mining Cavities	0	0	0
Mining Instability	0	0	N/A
BGS Recorded Mineral Sites	0	0	0

#### Tabular Summary Explanation

Argyll has carefully selected a range of datasets which are considered appropriate for the intended use of this report. Each dataset is searched to a set radius from the Site boundary and the tabular summary is divided into different search bands accordingly. If a database is searched and information is found, then the number of records available are detailed in the table above. If the database was searched and no data was found, then a zero will be present. If a database was not searched then the abbreviation N/A will be found, indicating this information was not available at the radius searched.

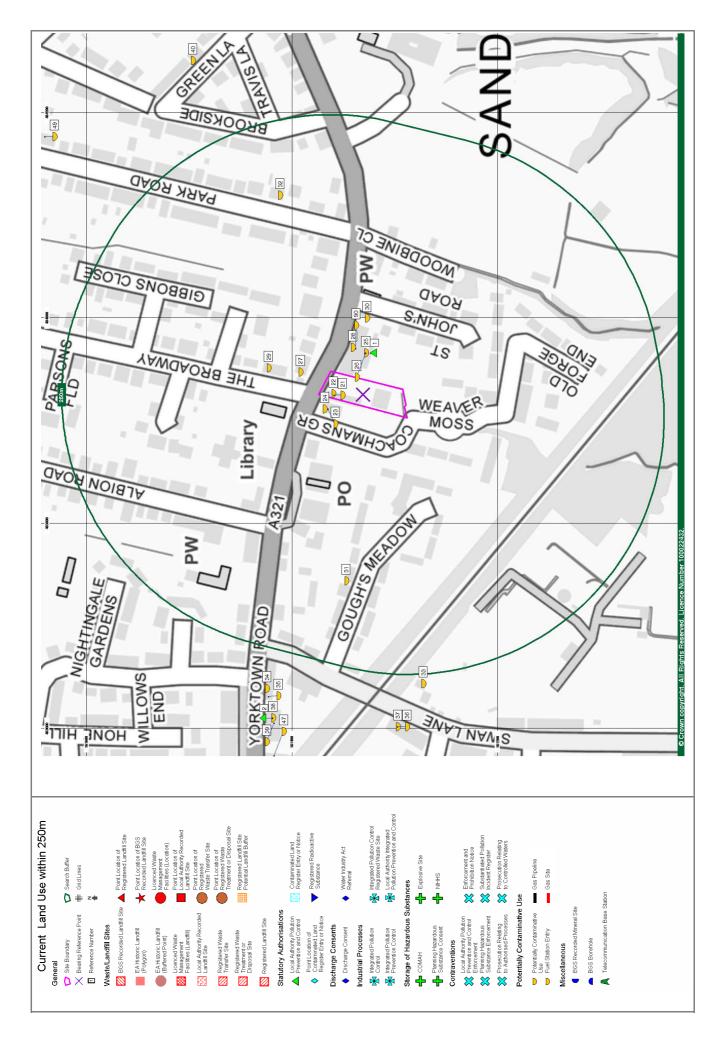
#### Landfill Site Information

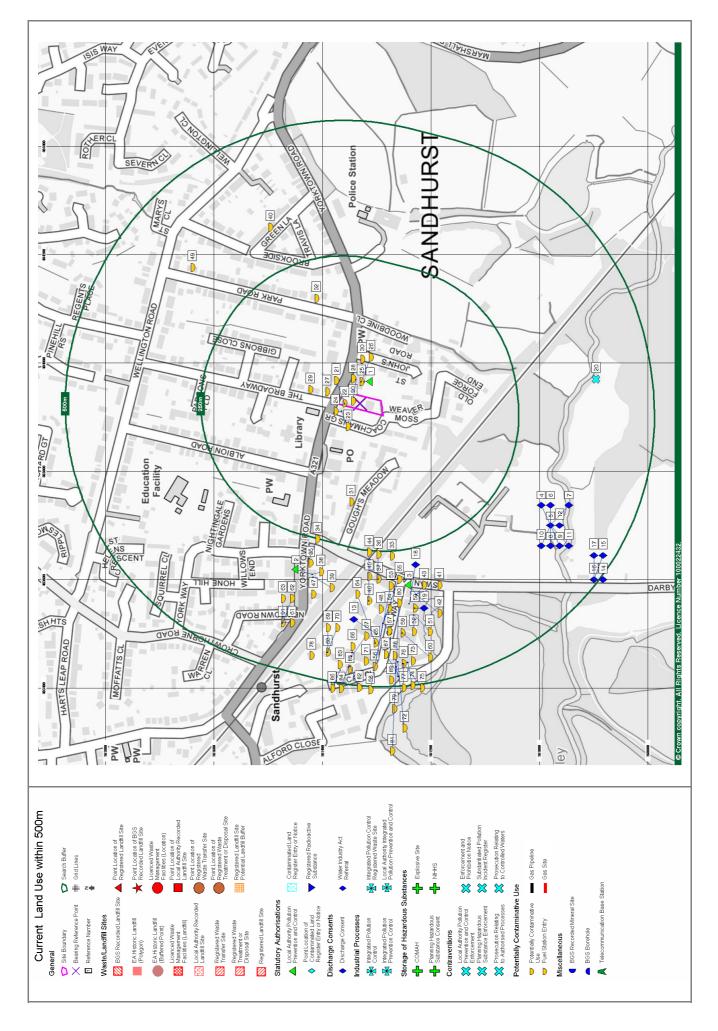
Registered landfill site boundaries (where available), are shown on the map as a red diagonal hatched polygon and referred to in the map legend as Registered Landfill Sites. At present no complete national dataset exists for landfill site boundaries, therefore a point grid reference provided by the data supplier is used for some landfill sites. The point grid references supplied provide only an approximate position, and can vary from the site entrance to the centre of the site. A point cannot properly define landfill boundaries therefore Landmark constructs a 250 metre or 100 metre "buffer" zone around the point to warn of the possible presence of landfill. The "buffer" zone is shown on the map as an orange crosshatched area and is referred to in the map legend as Potential Landfill Buffer.

Local Authority landfill data is sourced from individual local authorities that were able to provide information on sites operating prior to the introduction of the Control of Pollution Act (COPA) in 1974. Appropriate authorities are listed under Local Authority Landfill Coverage with an indication of whether or not they were able to make landfill data available. Details of any records identified are disclosed. You should be aware that if the local authority had landfill data but passed it to the relevant Environment Agency office, it does not necessarily mean that local authority landfill data is now included in our other Landfill datasets. In addition if no data has been made available for all or part of the search area, you should be aware that a negative response under 'Local Authority Recorded Landfill Sites' does not necessarily confirm that no local authority landfills exist.

#### Subsidence Hazards

Information on subsidence hazards is provided by the British Geological Survey (BGS). Information present within 250m of the Site is reported under Natural and Mining Related Hazards. Due to the level of detail of this data and the complexities of the real world, the BGS recommends a precautionary approach when using this information and advises taking the worst reading noted for each dataset within the vicinity of a property. Therefore, Argyll reports the presence of a ground stability or non-coal related mining hazard in the Risk Analysis section based on the highest reading found within 50m of the Site boundary.





# Statutory Information

Map ID	Details	Distance	Direction
	Authorisations		
	Local Authority Pollution Prevention and Controls		
1	Name: Shell Sandhurst, Academy Service Station, Location: 102 Yorktown Road, SANDHURST, Berkshire, GU47 9BH, Authority: Bracknell Forest Borough Council, Environmental Health Department, Permit Ref: EP/000000023, Dated: 20th January 1999, Process Type: Local Authority Pollution Prevention and Control, Description: PG1/14 Petrol filling station, Status: Permitted, Positional Accuracy: Automatically positioned to the address.	27m	E
2	Name: Clean Image, Location: 16 Yorktown Road, Sandhurst, GU47 9DT, Authority: Bracknell Forest Borough Council, Environmental Health Department, Permit Ref: EP/00000052, Dated: 6th April 2007, Process Type: Local Authority Pollution Prevention and Control, Description: PG6/46 Dry cleaning, Status: Permitted, Positional Accuracy: Manually positioned to the address or location.	317m	W
3	Name: La Accident Repair Centre, Location: 2 Vulcan Way, Swan Lane, Sandhurst, CAMBERLEY, Surrey, GU17 8DD, Authority: Bracknell Forest Borough Council, Environmental Health Department, Permit Ref: BFBC/EA11, Dated: 29th March 1996, Process Type: Local Authority Pollution Prevention and Control, Description: PG6/34 Respraying of road vehicles, Status: Authorisation revoked, Positional Accuracy: Manually positioned to the address or location. <i>No authorised processes have been found.</i> <i>Discharges</i>	336m	W
	Discharge Consents		
10	Operator: Thames Water Utilities Limited., Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Cntd.0029, Permit Version: 5, Effective Date: 1st April 2009, Issued Date: 28th January 2009, Revocation Date: 31st March 2010, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	369m	SW
11	Operator: Thames Water Utilities Ltd, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Csbd.0066, Permit Version: 1, Effective Date: 5th October 1989, Issued Date: 5th October 1989, Revocation Date: 5th December 1989, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	369m	SW

Map ID	Details	Distance	Direction
12	Operator: Thames Water Utilities Limited., Property Type: Sewage Disposal Works - Water Company, Location: Sandhurst Stw, Camberley, Surrey Sandhurst Sewage Treatment Works Swan Lane Sandhurst, Camberley Surrey Gu17 8du, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Casm.0178, Permit Version: 1, Effective Date: 10th May 2002, Issued Date: 22nd May 2002, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	369m	SW
4	Operator: Thames Water Utilities Ltd, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Cntd.0029, Permit Version: 7, Effective Date: 31st March 2018, Issued Date: 6th March 2018, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: Varied under EPR 2010, Positional Accuracy: Located by supplier to within 10m.	369m	SW
5	Operator: Thames Water Utilities Limited., Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Cntd.0029, Permit Version: 1, Effective Date: 5th December 1989, Issued Date: 5th December 1989, Revocation Date: 30th June 1991, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: By direction of Secretary of State (Water Act 1989, Schedule 26 & 25(4)(5)), Positional Accuracy: Located by supplier to within 10m.	369m	SW
6	Operator: Thames Water Utilities Limited., Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Cntd.0029, Permit Version: 4, Effective Date: 31st March 2005, Issued Date: 31st March 2005, Revocation Date: 31st March 2009, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	369m	SW
7	Operator: Thames Water Utilities Limited., Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Given, Permit Ref: CNTD.0029, Permit Version: 2, Effective Date: 1st July 1991, Issued Date: 5th December 1989, Revocation Date: 20th December 2000, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	369m	SW

Map ID	Details	Distance	Direction
8	Operator: Thames Water Utilities Limited., Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Cntd.0029, Permit Version: 6, Effective Date: 1st April 2010, Issued Date: 1st April 2010, Revocation Date: 30th March 2018, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	369m	SW
9	Operator: Thames Water Utilities Limited., Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Cntd.0029, Permit Version: 3, Effective Date: 21st December 2000, Issued Date: 21st December 2000, Revocation Date: 30th March 2005, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: River Blackwater, Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	369m	SW
13	Operator: Sandhurst Partition Blocks Ltd, Property Type: MAKING OF GLASS/CERAMICS/CEMENT/CUTTING STONE, Location: Unit 7, Vulcan Way, Sandhurst, Camberley, Surrey, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Ctwc.3362, Permit Version: 1, Effective Date: 16th June 1989, Issued Date: 16th June 1989, Revocation Date: 27th September 1993, Discharge Type: Discharge Of Other Matter-Surface Water, Discharge Environment: Freshwater Stream/River, Receiving Water: Trib Of The River Blackwater, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	403m	W
14	Operator: Easthampstead Rdc (Thames Water (S+W)), Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Ctcr.1335, Permit Version: 1, Effective Date: 9th April 1973, Issued Date: 9th April 1973, Revocation Date: 4th December 1989, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Blackwater, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	493m	SW
15	Operator: Thames Water Utilities Ltd, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Temp.2881, Permit Version: 1, Effective Date: 2nd November 1989, Issued Date: 2nd November 1989, Revocation Date: 2nd September 2010, Discharge Type: Public Sewage: Storm Sewage Overflow, Discharge Environment: Freshwater Stream/River, Receiving Water: Blackwater, Status: Temporary Consents (Water Act 1989, Section 113), Positional Accuracy: Located by supplier to within 100m.	493m	SW

Map ID	Details	Distance	Direction
16	Operator: Thames Water Utilities Ltd, Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst, Authority: Environment Agency, Thames Region, Catchment Area: Not Supplied, Permit Ref: Temp.2881, Permit Version: 2, Effective Date: 3rd September 2010, Issued Date: 3rd September 2010, Revocation Date: Not Supplied, Discharge Type: Public Sewage: Storm Sewage Overflow, Discharge Environment: Freshwater Stream/River, Receiving Water: Blackwater, Status: Varied under EPR 2010, Positional Accuracy: Located by supplier to within 100m.	493m	SW
17	Operator: Thames Water Utilities Limited., Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY), Location: Sandhurst Stw, Sandhurst, Berks, Authority: Environment Agency, Thames Region, Catchment Area: Not Given, Permit Ref: Ctcr.0963, Permit Version: 1, Effective Date: 16th January 1979, Issued Date: 9th October 1967, Revocation Date: 16th January 1979, Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company, Discharge Environment: Freshwater Stream/River, Receiving Water: Blackwater, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	493m	SW
	Water Industry Act Referrals		
18	Name: Acorn Plating Ltd, Location: 4 VULCAN WAY, SWAN WAY, SANDHURST, CAMBERLEY, SURREY, GU17 8BU, Authority: Environment Agency, Thames Region, Permit Ref: AW0377, Date: 25th June 1996, Process Type: Permissions or amendments to discharge under the Water Industry Act 1991, Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations, Status: Application cancelled, Positional Accuracy: Manually positioned to the address or location.	350m	W
19	Name: Acorn Plating Ltd, Location: ACORN PLATING LTD, UNIT 4 VULCAN WAY, UNIT 4 VULCAN WAY, SANDHURST, BERKSHIRE, GU47 9DB, Authority: Environment Agency, Thames Region, Permit Ref: BX9153, Date: 12th May 2004, Process Type: Permissions or amendments to discharge under the Water Industry Act 1991, Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations, Status: Application received by the EA but is not yet authorised, Positional Accuracy: Automatically positioned to the address.	360m	W
	Hazardous Sites		
	No hazardous sites have been found.		
	Contraventions		
	Substantiated Pollution Incident Register		
20	Authority: Environment Agency - Southern Region, Solent and South	398m	S

 20
 Authority: Environment Agency - Southern Region, Solent and South
 398m
 S

 Downs, Date: 17th March 2016, Incident Ref: 1420225, Pollutant: 1.Crude
 Sewage, Water Impact: Category 3 - Minor Incident, Air Impact: Category 4
 - No Impact, Land Impact: Category 2 - Significant Incident, Positional
 Accuracy: Located by supplier to within 10m.

## Waste

Map ID	Details	Distance	Direction
	Waste/Landfill Sites		
	Local Authority Landfill Coverage		
	Bracknell Forest Unitary Council - Has no landfill data to supply		
	Hart District Council - Has no landfill data to supply		
	Hampshire County Council - Had landfill data but passed it to the relevant environment agency		

No Waste/Landfill sites have been found.

### Current Land Use

Map ID	Details	Distance	Direction
	Current Potentially Contaminative Uses		
	Contemporary Trade Directory Entries		
21	Ornamental Metalwork, Name: J C Donnelly & Son	On Site	Ν
	Status: Inactive, Location: Sandhurst Forge, 92, Yorktown Road, Sandhurst, Berkshire, GU47 9BH, Positional Accuracy: Automatically positioned to the address.		
22	Ornamental Metalwork, Name: Anvil Southern Ltd	On Site	Ν
	Status: Active, Location: Sandhurst Forge, 92, Yorktown Road, Sandhurst, GU47 9BH, Positional Accuracy: Automatically positioned to the address.		
23	Blinds, Awnings & Canopies, Name: Blinds & Awnings	12m	Ν
	Status: Inactive, Location: 90, Yorktown Road, Sandhurst, GU47 9BH, Positional Accuracy: Automatically positioned to the address.		
24	Blinds, Awnings & Canopies, Name: Blinds & Awnings	12m	Ν
	Status: Active, Location: 90, Yorktown Road, Sandhurst, GU47 9BH, Positional Accuracy: Automatically positioned to the address.		
25	Petrol Filling Stations, Name: Shell Service Station	26m	E
	Status: Active, Location: Academy Service Station, 102, Yorktown Road, Sandhurst, Berkshire, GU47 9BH, Positional Accuracy: Automatically positioned to the address.		
26	Petrol Filling Stations, Name: Shell Sandhurst Service Station	26m	Е
	Status: Inactive, Location: Academy Service Station, 102, Yorktown Road, Sandhurst, Berkshire, GU47 9BH, Positional Accuracy: Automatically positioned to the address.		
27	Carpet, Curtain & Upholstery Cleaners, Name: United Carpet Cleaning Masters	27m	Ν
	Status: Inactive, Location: 103c Yorktown Rd, Sandhurst, Berkshire, GU47 9BN, Positional Accuracy: Manually positioned to the address or location.		
28	Petrol Filling Stations, Name: Shell Service Station	28m	E
	Status: Inactive, Location: Academy Service Station, 102, Yorktown Road, Sandhurst, GU47 9BH, Positional Accuracy: Automatically positioned to the address.		
29	Car Body Repairs, Name: Doctor Dent	56m	Ν
	Status: Active, Location: 2a, The Broadway, Sandhurst, Berkshire, GU47 9AB, Positional Accuracy: Manually positioned to the address or location.		
30	Electrical Engineers, Name: Integrated Technology Solutions	59m	E
	Status: Inactive, Location: Technology House, 104, Yorktown Road, Sandhurst, Berkshire, GU47 9BH, Positional Accuracy: Manually positioned to the address or location.		
31	Cleaning Services - Domestic, Name: Pro Cleaners Sandhurst	169m	W
	Status: Inactive, Location: 10, Goughs Meadow, Sandhurst, Berkshire, GU47 9BY, Positional Accuracy: Automatically positioned to the address.		
32	Antiques - Repairing & Restoring, Name: Time Interiors	179m	NE
	Status: Inactive, Location: 4, Park Road, Sandhurst, Berkshire, GU47 9AA, Positional Accuracy: Automatically positioned to the address.		

Map ID	Details	Distance	Direction
33	Air Conditioning & Refrigeration Contractors, Name: Emserve Ltd	260m	W
	Status: Inactive, Location: 17, Swan Lane, Sandhurst, Berkshire, GU47 9DA, Positional Accuracy: Automatically positioned to the address.		
34	Electronic Equipment - Manufacturers & Assemblers, Name: Penmix Ltd	290m	W
	Status: Inactive, Location: 26a, Yorktown Road, Sandhurst, Berkshire, GU47 9DT, Positional Accuracy: Automatically positioned to the address.		
35	Laboratories, Name: Eden Bookmakers	297m	W
	Status: Inactive, Location: 24, Yorktown Road, Sandhurst, Berkshire, GU47 9DT, Positional Accuracy: Automatically positioned to the address.		
36	Commercial Vehicle Servicing, Repairs, Parts & Accessories, Name: Onus Technologies	302m	W
	Status: Inactive, Location: Unit 1, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
37	Sheet Metal Work, Name: T E L Fabrications Ltd	302m	W
	Status: Inactive, Location: Unit 1, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Manually positioned to the address or location.		
38	Dry Cleaners, Name: Clean Images Ltd	316m	W
	Status: Inactive, Location: 16, Yorktown Road, Sandhurst, Berkshire, GU47 9DT, Positional Accuracy: Automatically positioned to the address.		
39	Bathroom Fixtures - Manufacturers, Name: Bathrooms & More Ltd	321m	W
	Status: Inactive, Location: 12, Yorktown Road, Sandhurst, Berkshire, GU47 9DT, Positional Accuracy: Automatically positioned to the address.		
40	Car Body Repairs, Name: Brooks Services	332m	NE
	Status: Inactive, Location: 14, Green Lane, Sandhurst, Berkshire, GU47 9AG, Positional Accuracy: Automatically positioned to the address.		
41	Garage Services, Name: Halfords Autocentre	336m	W
	Status: Active, Location: 2, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
42	Car Body Repairs, Name: Sandhurst Car Centre	336m	W
	Status: Inactive, Location: 2, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
43	Garage Services, Name: Trade Tyres	336m	W
	Status: Inactive, Location: 2, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
44	Sheet Metal Work, Name: M M G Ltd	343m	W
	Status: Inactive, Location: 3-5, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
45	Engineers - General, Name: Whitcol Engineering	343m	W
	Status: Inactive, Location: 3-5, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
46	Precision Engineers, Name: Whitcol Engineering Ltd	343m	W
	Status: Inactive, Location: 3-5, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
47	Painting & Decorating Supplies, Name: C M Decorative Supplies	352m	W
	Status: Active, Location: 4, Yorktown Road, Sandhurst, Berkshire, GU47 9DT, Positional Accuracy: Automatically positioned to the address.		

Map ID	Details	Distance	Direction
48	Car Body Repairs, Name: R A Vehicle Body Repair Specialists	357m	W
	Status: Active, Location: Unit 5, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
49	Carpet, Curtain & Upholstery Cleaners, Name: Mr Clean	360m	NE
	Status: Inactive, Location: 50, Park Road, Sandhurst, Berkshire, GU47 9AA, Positional Accuracy: Automatically positioned to the address.		
50	Metal Finishing Services, Name: Acorn Plating Ltd	360m	W
	Status: Active, Location: Unit 4b, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
51	Precision Engineers, Name: Turner Engineering (Farnborough) Ltd	372m	W
	Status: Inactive, Location: 6, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
52	Control Panels, Name: Falcon Reed	372m	W
	Status: Inactive, Location: 6, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
53	Car Body Repairs, Name: Perfect Paint Ltd	383m	W
	Status: Inactive, Location: Unit 10a, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Manually positioned within the geographical locality.		
54	Mot Testing Centres, Name: Vulcan Motors Ltd	383m	W
	Status: Active, Location: Unit 7a-7b, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
55	Garage Services, Name: Vulcan Motors Ltd	383m	W
	Status: Inactive, Location: Unit 7a-7b, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
56	Garage Services, Name: Vulcan Motors Ltd	383m	W
	Status: Inactive, Location: 7a-7b, Unit, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
57	Car Body Repairs, Name: Perfect Paint	383m	W
	Status: Inactive, Location: Unit 10b Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Manually positioned within the geographical locality.		
58	Car Dealers - Used, Name: Oakdown Cars	383m	W
	Status: Inactive, Location: Unit 7e, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Manually positioned to the address or location.		
59	Car Dealers - Used, Name: Fleet Agents Direct	403m	W
	Status: Active, Location: Unit 7a, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Manually positioned within the geographical locality.		
60	Car Dealers, Name: Usebmdirect.Co.Uk	403m	W
	Status: Inactive, Location: Unit 7a, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Manually positioned within the geographical locality.		
61	Car Dealers - Used, Name: Thompsons Of Sandhurst	417m	W
	Status: Inactive, Location: 33, Yorktown Road, Sandhurst, Berkshire, GU47 9DX, Positional Accuracy: Automatically positioned to the address.		

Map ID	Details	Distance	Direction
62	Car Dealers, Name: Wellington Motors	417m	W
	Status: Inactive, Location: 33, Yorktown Road, Sandhurst, Berkshire, GU47 9DX, Positional Accuracy: Automatically positioned to the address.		
63	Garage Services, Name: Thompsons	417m	W
	Status: Inactive, Location: 33, Yorktown Road, Sandhurst, Berkshire, GU47 9DX, Positional Accuracy: Automatically positioned to the address.		
64	Commercial Vehicle Servicing, Repairs, Parts & Accessories, Name: I & J Engineers Ltd	420m	W
	Status: Inactive, Location: 9, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Manually positioned to the address or location.		
65	Road Haulage Services, Name: Andy Crane Transport Ltd	420m	W
	Status: Active, Location: 9, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
66	Metal Finishing Services, Name: Advanced Electro Plating Ltd	441m	W
	Status: Inactive, Location: Unit 5, Vulcan Court, Vulcan Way, Sandhurst, Berkshire, GU47 9DR, Positional Accuracy: Automatically positioned to the address.		
67	Electric Motor Sales & Service, Name: Premier Electric Ltd	448m	W
	Status: Active, Location: Unit 6, Vulcan Court, Vulcan Way, SANDHURST, Berkshire, GU47 9DR, Positional Accuracy: Automatically positioned to the address.		
68	Car Dealers, Name: Berkshire Specialist Cars Ltd	448m	W
	Status: Active, Location: 4, Vulcan Close, Sandhurst, Berkshire, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
69	Car Body Repairs, Name: Sandhurst Bodyworks	448m	W
	Status: Inactive, Location: 4b, Vulcan Close, Sandhurst, Berkshire, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
70	Car Body Repairs, Name: Sandhurst Body Works	448m	W
	Status: Inactive, Location: 4, Vulcan Close, Sandhurst, Berkshire, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
71	Classic Car Specialists, Name: Cherished Car The Co Ltd	454m	W
	Status: Inactive, Location: Unit 2, Vulcan Court, Vulcan Way, Sandhurst, Berkshire, GU47 9DR, Positional Accuracy: Automatically positioned to the address.		
72	Tyre Dealers, Name: Sandhurst Tyres	455m	W
	Status: Active, Location: Unit 14-18, Vulcan Way, Sandhurst, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
73	Metal Finishing Services, Name: Techblast	456m	W
	Status: Inactive, Location: Unit 20, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
74	Tyre Dealers, Name: Chessington Tyres Ltd	458m	W
	Status: Inactive, Location: 18, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
75	Mot Testing Centres, Name: Sandhurst M O T Centre Ltd	459m	W
	Status: Active, Location: Unit 14-18, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
76	Garage Services, Name: Sandhurst Service Centre Status: Inactive, Location: 14-16, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.	459m	W

Map ID	Details	Distance	Direction
77	Motor Cycle Repairs, Name: Sandhurst Motorcycles Ltd	459m	W
	Status: Inactive, Location: Unit 14-18, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
78	Car Dealers - Used, Name: The Webcarsite	462m	W
	Status: Inactive, Location: 4d, Vulcan Close, Sandhurst, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
79	Printers, Name: Belmont Motors	463m	W
	Status: Inactive, Location: 12, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
80	Printers, Name: Sycamore Press Ltd	463m	W
	Status: Inactive, Location: 12, Vulcan Way, Sandhurst, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
81	Printers, Name: Sycamore Press Ltd	463m	W
	Status: Active, Location: Unit 12, Vulcan Way, SANDHURST, Berkshire, GU47 9DB, Positional Accuracy: Automatically positioned to the address.		
82	Electronic Component Manufacturers & Distributors, Name: Rogas Separations Corporation Ltd	467m	W
	Status: Inactive, Location: 4a, Vulcan Close, Sandhurst, Berkshire, GU47 9DD, Positional Accuracy: Automatically positioned in the proximity of the address.		
83	Antiques - Repairing & Restoring, Name: Berkshire Metal Finishers Ltd	467m	W
	Status: Inactive, Location: 3, Factory, Vulcan Close, Sandhurst, Berkshire, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
84	Spraying - Paint & Coatings, Name: Cove Industrial Enterprises	468m	W
	Status: Inactive, Location: 2, Vulcan Close, Sandhurst, Berkshire, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
85	Car Dealers - Used, Name: Berkshire Specialist Cars	472m	W
	Status: Inactive, Location: 2, Vulcan Close, Sandhurst, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
86	Car Dealers, Name: Autospec	476m	W
	Status: Active, Location: 3, Vulcan Close, Sandhurst, GU47 9DD, Positional Accuracy: Automatically positioned to the address.		
87	Precision Engineers, Name: R K Components	481m	W
	Status: Inactive, Location: Unit 14, Lakeside Business Park, Swan Lane, Sandhurst, Berkshire, GU47 9DN, Positional Accuracy: Automatically positioned to the address.		
88	Precision Engineers, Name: A P B Engineering	482m	W
	Status: Inactive, Location: Unit 14, Lakeside Business Park, Swan Lane, Sandhurst, GU47 9DN, Positional Accuracy: Automatically positioned to the address.		
89	Precision Engineers, Name: D P E	488m	W
	Status: Inactive, Location: Unit 13, Lakeside Business Park, Swan Lane, Sandhurst, GU47 9DN, Positional Accuracy: Automatically positioned to the address.		
	Fuel Station Entries		
90	Name: Mfg Sandhurst, Location: 102, Yorktown Road , , Sandhurst, Bracknell Forest, GU47 9BH, Brand: Shell, Premises Type: Petrol Station, Status: Open, Positional Accuracy: Manually positioned to the address or location.	28m	E

Map ID	Details	Distance	Direction
91	Name: Thompsons Garage, Location: 33-37, Yorktown Road Newtown Road, Sandhurst, Camberley, Bracknell Forest, GU47 9DX, Brand: Obsolete, Premises Type: Not Applicable, Status: Obsolete, Positional Accuracy: Automatically positioned to the address.	417m	W

### Historical Land Use

Details	Distance	Direction
Historical Potentially Contaminative Uses		
Historical Tanks and Energy Facilities		
Potential Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	42m	E
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	111m	Ν
Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	190m	SW
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	212m	SW
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	235m	SW
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	242m	W
Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	245m	W
Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	271m	SW
Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	283m	SW
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	283m	SW
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	312m	Ν
Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	313m	Ν
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	325m	SW
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	326m	SW
Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	330m	SW
Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	339m	W
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	346m	SW
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	348m	W
Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	378m	W
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	381m	W
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	382m	W
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	383m	NW
Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	394m	NW
Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	397m	W
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	405m	W
Potential Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1971.	417m	W
Potential Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	417m	W
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978.	465m	SW
Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1978 - 1989.	481m	NE

## Potentially Infilled Land

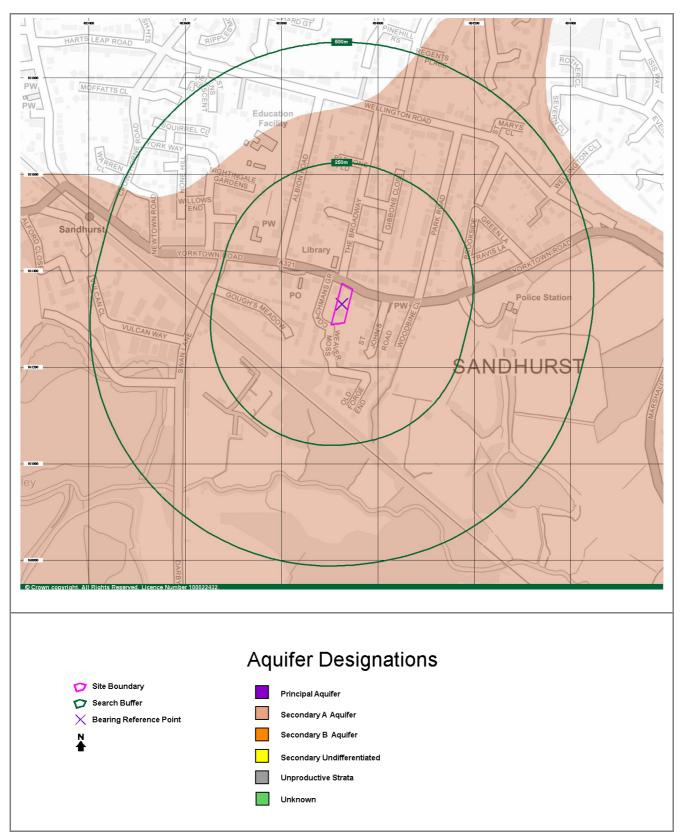
No potentially infilled land has been found.

Scale	Map Sheet	Published Date
1:2,500	Berkshire 046_16	1871
1:2,500	Hampshire & Isle Of Wight 006_16	1871
1:2,500	Hampshire & Isle Of Wight 012_04	1871
1:2,500	Berkshire 049_04	1877
1:2,500	Hampshire & Isle Of Wight 006_16	1896
1:2,500	Berkshire 046_16	1899
1:2,500	Berkshire 049_04	1899
1:2,500	Hampshire & Isle Of Wight 012_04	1899
1:2,500	Berkshire 046_16	1911
1:2,500	Berkshire 049_04	1911
1:2,500	Berkshire 049_04	1931
1:2,500	Berkshire 046_16	1932
1:2,500	National Grid SU8361	1965
1:2,500	National Grid SU8360	1968
1:2,500	National Grid SU8461	1968
1:2,500	National Grid SU8361	1971
1:2,500	National Grid SU8360	1972
1:2,500	National Grid SU8461	1974
1:2,500	National Grid SU8360	1974
1:2,500	National Grid SU8461	1975
1:10,560	Hampshire & Isle Of Wight 012_00	1874
1:10,560	Hampshire & Isle Of Wight 013_00	1874
1:10,560	Berkshire 046_00	1876
1:10,560	Berkshire 047_00	1876
1:10,560	Surrey 015_00	1876
1:10,560	Surrey 009_00	1881
1:10,560	Hampshire & Isle Of Wight 012_NE	1897
1:10,560	Hampshire & Isle Of Wight 006_SE	1898
1:10,560	Hampshire & Isle Of Wight 013_NW	1898
1:10,560	Surrey 015_NW	1898
1:10,560	Berkshire 046_SE	1900
1:10,560	Berkshire 047_SW	1900
1:10,560	Berkshire 049_NE	1900
1:10,560	Berkshire 050_NW	1900
1:10,560	Berkshire 046_SE	1912
1:10,560	Berkshire 049_NE	1912
1:10,560	Berkshire 050_NW	1912
1:10,560	Hampshire & Isle Of Wight 006_SE	1912
1:10,560	Hampshire & Isle Of Wight 012_NE	1912
1:10,560	Hampshire & Isle Of Wight 013_NW	1912
1:10,560	Berkshire 047_SW	1913
1:10,560	Surrey 015_NW	1920
1:10,560	Berkshire 046_SE	1930
1:10,560	Hampshire & Isle Of Wight 006_SE	1930

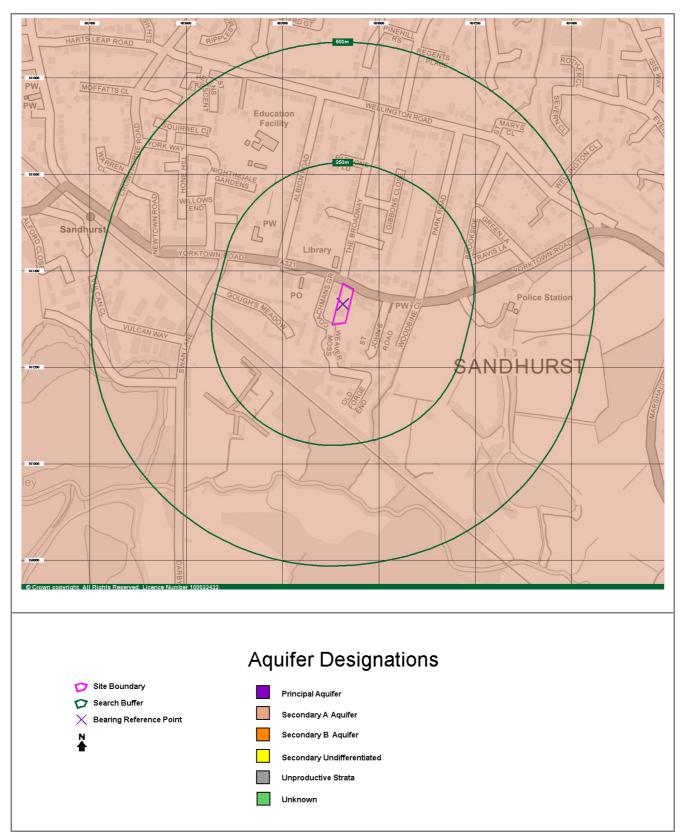
The following maps have been manually reviewed by a consultant and presented in the Risk Analysis section at the front of this report.

Scale	Map Sheet	Published Date
1:10,560	Berkshire 049_NE	1932
1:10,560	Hampshire & Isle Of Wight 012_NE	1932
1:10,560	Hampshire & Isle Of Wight 013_NW	1933
1:10,560	Berkshire 050_NW	1938
1:10,560	Surrey 015_NW	1938
1:10,560	National Grid SU86SW	1961
1:10,000	National Grid SU86SW	1970
1:10,000	National Grid SU86SW	1974
1:10,000	National Grid SU86SW	1992
1:10,000	National Grid SU86SW	2014
1:1,250	National Grid SU8360NE	1978
1:1,250	National Grid SU8361NE	1978
1:1,250	National Grid SU8361SE	1978
1:1,250	National Grid SU8461NW	1978
1:1,250	National Grid SU8461SW	1978
1:1,250	National Grid SU8461NW	1989
1:1,250	National Grid SU8360NE	1993
1:1,250	National Grid SU8361NE	1993
1:1,250	National Grid SU8361SE	1993
1:1,250	National Grid SU8461NW	1993
1:1,250	National Grid SU8461SW	1993
1:1,250	National Grid SU8461SW	1995
1:1,250	National Grid SU8461NW	1981
1:1,250	National Grid SU8361NE	1990
1:1,250	National Grid SU8461NW	1987

## Aquifer Designation (Superficial)

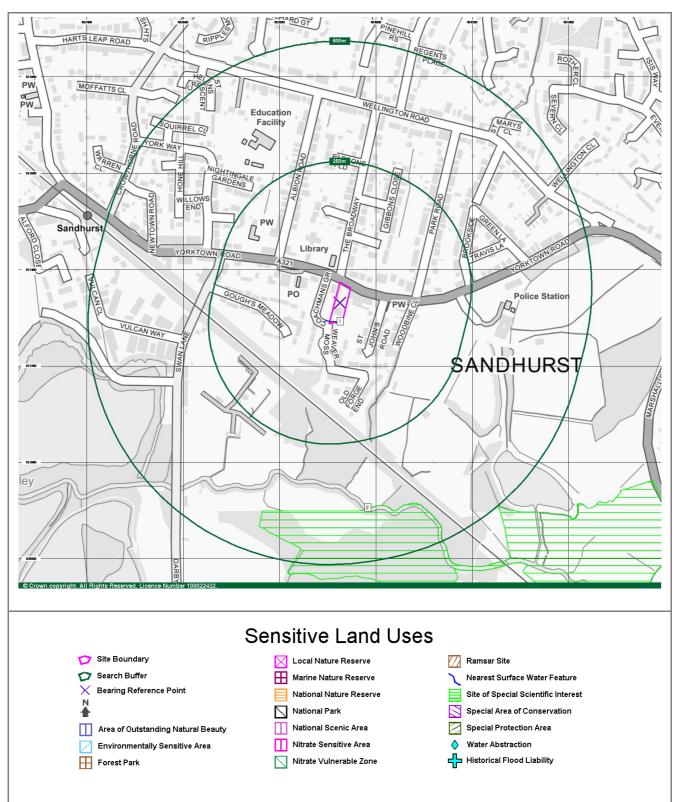


## Aquifer Designation (Bedrock)



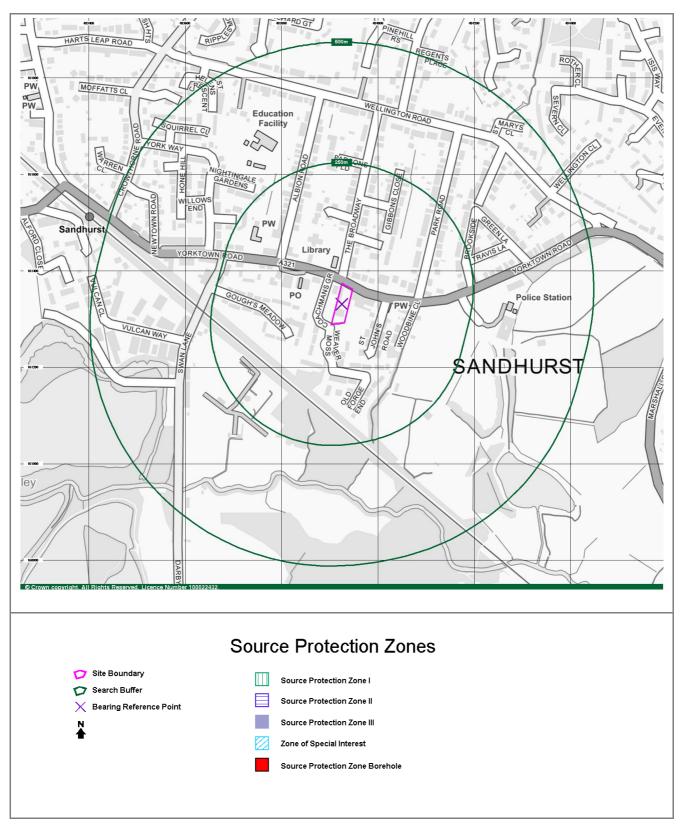
# Groundwater Vulnerability

Map ID	Details	Distance	Direction
	Hydrogeology		
	Superficial Aquifer Designations		
	Secondary Aquifer - A	On Site	-
	These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.		
	Bedrock Aquifer Designations		
	Secondary Aquifer - A	On Site	-
	These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.		
	Geology		
	BGS 1:50,000 Bedrock Geology		
	LEX Code: WIDS, Rock Name: Windlesham Formation, Rock Type: Sand, Silt and Clay, Min Age: Not Supplied, Max Age: Eocene.	On Site	S
	LEX Code: WIDS, Rock Name: Windlesham Formation, Rock Type: Sand, Silt and Clay, Min Age: Not Supplied, Max Age: Eocene.	On Site	-
	LEX Code: CMBS, Rock Name: Camberley Sand Formation, Rock Type: Sand, Min Age: Not Supplied, Max Age: Lutetian.	481m	NW
	BGS 1:50,000 Superficial Deposits		
	LEX Code: ALV, Rock Name: Alluvium, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Holocene.	On Site	S
	LEX Code: ALV, Rock Name: Alluvium, Rock Type: Clay, Silt, Sand and Gravel, Min Age: Not Supplied, Max Age: Holocene.	On Site	-
	LEX Code: RTD2, Rock Name: River Terrace Deposits, 2, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Quaternary.	38m	Ν
	LEX Code: RTD2, Rock Name: River Terrace Deposits, 2, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Quaternary.	364m	W
	LEX Code: RTD2, Rock Name: River Terrace Deposits, 2, Rock Type: Sand and Gravel, Min Age: Not Supplied, Max Age: Quaternary.	480m	NE
	BGS 1:50,000 Geological Mapping Coverage		
	Map Sheet No: 269, MapName: Windsor, Map Date: 1999, Bedrock Geology: Available, Superficial Geology: Available, Artificial Geology: Available, Faults: Not Supplied, Landslip: Available, Rock Segments: Not Supplied.	On Site	-
	Map Sheet No: 285, MapName: Guildford, Map Date: 2001, Bedrock Geology: Available, Superficial Geology: Available, Artificial Geology: Available, Faults: Not Supplied, Landslip: Available, Rock Segments: Not Supplied.	On Site	S
	BGS 1:625,000 Solid Geology		
	Description: Bracklesham Group And Barton Group (Undifferentiated).	On Site	-



### Environmentally Sensitive Features

### Source Protection Zones



# Environmentally Sensitive Features

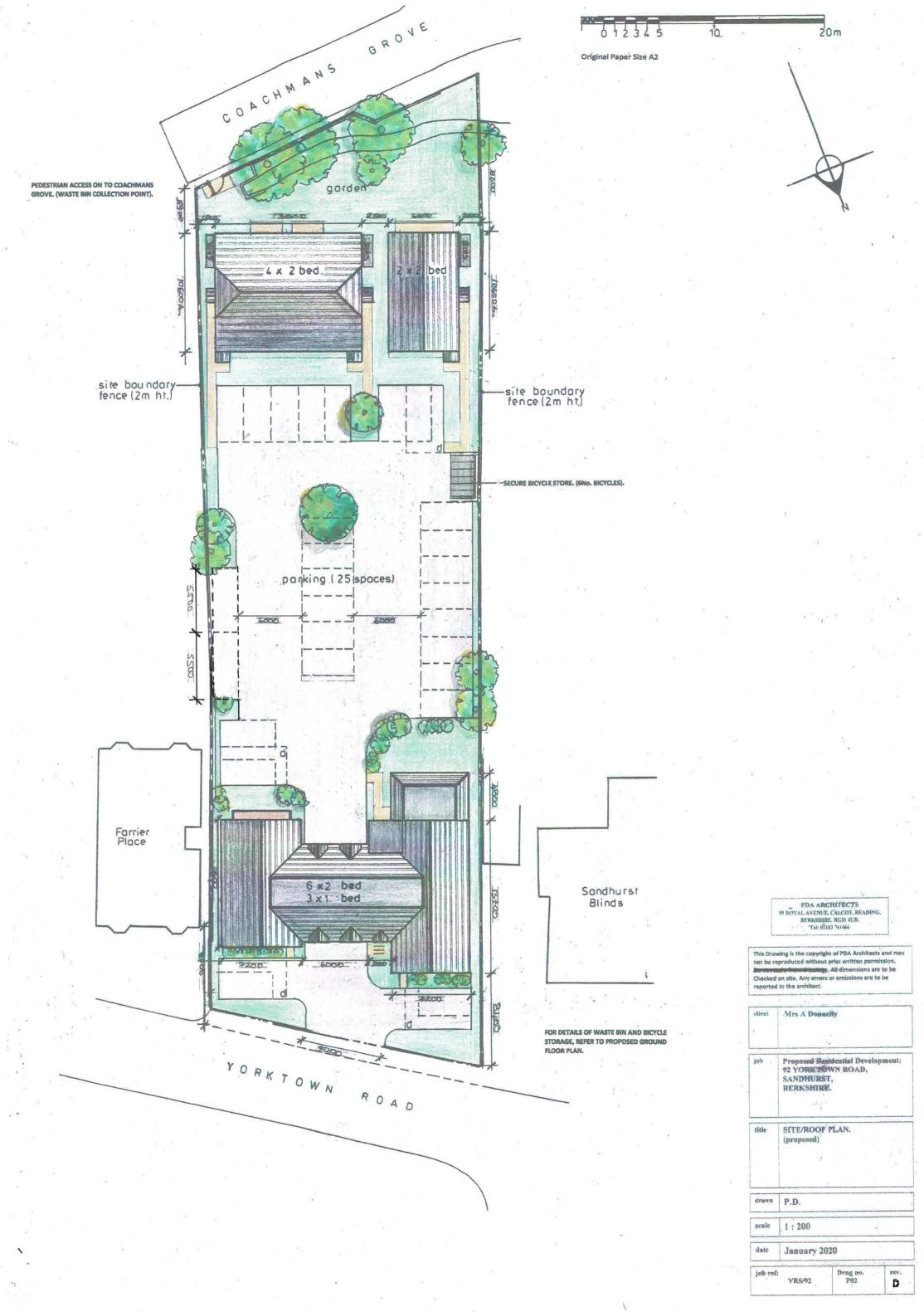
Map ID	Details	Distance	Direction
	Environmentally Sensitive Features		
	River Quality Biology Sampling Points		
	Name: Blackwater (Thames), Reach: Sandhurst Sewage Treatment Works To Eversley, Estimated Distance: 8.20, Positional Accuracy: Located by supplier to within 100m, GQA Grade: River Quality Biology GQA Grade D - Fair, Year: 1990.	493m	SW
	Nearest Surface Water Feature		
1	Surface water feature identified in proximity.	On Site	S
	Sites of Special Scientific Interest		
2	Name: Blackwater Valley, Multiple Area: N, Area (m <sup>2</sup> ): 339225.52, Source: Natural England, Reference: 1003263, Designation Date: 25th March 1992, Date Type: Notified, Designation Details: Local Wildlife Site.	389m	S
	Name: Sandhurst To Owlsmoor Bogs And Heaths, Multiple Area: N, Area (m <sup>2</sup> ): 858078.4, Source: Natural England, Reference: 1004008, Designation Date: 10th June 1983, Date Type: Notified, Designation Details: Local Nature Reserve.	845m	NE
	Special Protection Areas		
	Name: Thames Basin Heaths, Multiple Area: Y, Area (m <sup>2</sup> ): 83094952.51, Source: Natural England, Reference: UK9012141, Designation Date: Not Supplied.	845m	NE
	Water Abstractions		
	Operator: Mr A I Johnstone, Licence Number: 28/39/24/0219, Permit Version: 100, Location: Breach Farm, Sandhurst - Borehole, Authority: Environment Agency, Thames Region, Abstraction: General Farming And Domestic, Abstraction Type: Water may be abstracted from a single point, Source: Groundwater, Daily Rate(m <sup>3</sup> ): 1, Yearly Rate (m <sup>3</sup> ): 200, Breach Farm, Sandhurst, Authorised Start: 01 January, Authorised End: 31 December, Permit Start Date: 20th June 1995, Permit End Date: Not Supplied, Positional Accuracy: Located by supplier to within 10m.	679m	W
	Source Protection Zones		

None

# Natural and Mining Related Hazards

Map ID	Details	Distance	Direction
	Subsidence		
	Collapsible Ground Stability Hazards		
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	38m	Ν
	Compressible Ground Stability Hazards		
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	38m	Ν
	Ground Dissolution Stability Hazards		
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Landslide Ground Stability Hazards		
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Running Sand Ground Stability Hazards		
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	38m	Ν
	Shrinking or Swelling Clay Subsidence Hazards		
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Non-Coal Mining Hazards		
	No Hazard. Radon		
	Radon Potential		
	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level)		
	Radon Protective Measures		
	None, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Mining		
	Brine Compensation Areas		
	None.		
	Coal Mining Affected Areas		
	In an area which may not be affected by coal mining.		

# Appendix 2 – Proposed site plan





# Appendix 3 - Report Methodology, Limitations and Reliance

#### Reliance

AEL has prepared this Phase One Environmental Assessment with all reasonable skill, care and diligence within the terms and conditions for Environmental Consultancy Services September 2011. This report has been prepared solely and exclusively for Phillip Doudney. If reliance on this report is required by a third party, this may be arranged for an agreed fee.

The assessment has been carried out with due regard to industry guidelines including the Contaminated Land Guidance documents issued by the Department for Environment, Food and Rural Affairs (and its Predecessors), the British Standards Institute (the BSi), the Royal Institution of Chartered Surveyors (RICS). The methods used follow a risk-based approach, with the potential environmental risk assessed qualitatively using the 'contaminant-pathway-receptor pollutant linkage' concept introduced in the Environmental Protection Act 1990.

#### **Report Methodology and Limitations**

The evaluations and recommendations presented within this report are based only on the examination of available historical maps, directories, environmental records, discussions with regulatory bodies, and any previous reports made available to AEL. No intrusive surveys or environmental sampling was conducted as part of this study. AEL accepts no responsibility for the accuracy or completeness of third party data reviewed within this assessment. Copies of the third party data used in this report can be provided upon request (subject to any copyright limitations).

Where budget estimates have been provided, the figures have been identified on the basis of documentation gathered on the Site and discussions with Site management. AEL is unable to warrant the accuracy of these figures and you are recommended to seek appropriate quotations where reliance on a budget estimate is required.

The scope of this report does not include an assessment of the presence of asbestos containing materials within or below buildings at the Site. However if the presence of asbestos is known or suspected, recommendations will be provided to develop an asbestos management plan to comply with current regulations and additional survey/sampling works may then be required.

The conclusions of this study are not necessarily indicative of future conditions or operating practices at or adjacent to the Site.

The liabilities for contaminated land in England and Wales are primarily set out under Part 2A of the Environmental Protection Act 1990, although in certain circumstances action may also be taken under the Water Resources Act 1991. Where re/development is taking place then any necessary remediation is carried out under the statutory planning regime. The main policy document is the National Planning Policy Framework (NPPF) March 2012 which sets out the principles that local planning authorities should follow when determining planning applications for contaminated or potentially contaminated land. The key paragraphs for contamination are 120 and 121 which read:

'Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner' (Para 120) 'after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990' (Para 121).

More detailed guidance is provided in Planning Practice Guidance – Land Affected by Contamination (6 March 2014). The legislation that is relevant to the remediation of contaminated land (Part 2A of the Environmental Protection Act 1990, the Water Resources Act 1991 and the relevant provisions of the statutory planning regime) are referred to here as Relevant Legislation.

The interpretation of the wording "significant risk" within the context of exiting legislation is based on the following:

"Significant harm is being caused or there is a significant possibility of such harm being caused, (where harm is defined as harm to health of living organisms or other interference with the ecological systems of which they form a part and, in the case of man, includes harm to his property); and / or, pollution of Controlled Waters is being caused".

AEL's assessment of risk and environmental liability under the Relevant Legislation is thus based upon the principle of determining the presence of a potential contaminant-pathway-receptor relationship. Where a 'contaminant' is a source of contamination, a 'pathway' a medium through which the contamination can mobilise and 'a receptor' something that could be detrimentally affected by the contamination. Where each of these elements is present, it is considered that a potential contaminant linkage exists at the Site.

A Site will be assessed by AEL, based on the risk of there being contaminative substances present in, under or on the Site (excluding asbestos containing materials, lead based paints, invasive plant species or mould infestations) such that, on the basis of its proposed use, there is a reasonable likelihood of a Local Planning Authority requiring the remediation of the Site to the requirements of Para 121 of the NPPF.

### Glossary of Terms

#### BS1075 Investigation of potentially contaminated sites. Code of Practice.

This British Standard provides recommendations and guidance on the investigation of land potentially affected by contamination or naturally elevated concentrations of potentially harmful substances in order to determine or manage any risks.

#### Contaminated Land (Part 2A definition)

Part 2A of the Environmental Protection Act 1990 was brought into force on 1<sup>st</sup> April 2000. The legal definition of contaminated land is

"any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on, or under the land that:

- A significant harm is being caused or there is the significant possibility of such harm being caused; or
- Significant pollution of controlled waters is being caused of there is a significant possibility of such pollution being caused.

A key element of the Part 2A regimes is the Source-Pathway-Receptor, known as the "contaminant linkage". Meaning: The source is the contamination in, on or under the land; the pathway is the route by which the contamination reaches the receptor; and the receptor is defined as living organisms, ecological systems or property which may be harmed.

Without these three elements of the contaminant linkage, land cannot be identified as contaminated land under the Part 2A regime.

#### CLR 11 Model Procedures for the Management of Land Contamination

This document provides the technical framework for applying a risk management process when dealing with land affected by contamination which is consistent with government policies and legislation within the UK.

#### Conceptual Site Model

A conceptual site model (CSM) identifies all the potential contaminant linkages (contaminant-pathway-receptors) and drives the risk assessment.

#### National Planning Policy Framework (NPPF 2012)

NPPF acts as guidance for local planning authorities about planning applications. Planning practice guidance are regularly updated online in support of the framework. The paragraphs below highlight the relevant sections are Paragraph 120 and 121 of the NPPF.

#### Paragraph 120 of NPPF

'To prevent unacceptable risks from pollution and land instability, planning policies and decision should ensure that new development is appropriate for its location.'

#### Paragraph 121 of NPPF

'Ensure that site is suitable for its new use and after remediation, as a minimum should not be capable of being determined as contaminated land under Part IIA of EPA 1990. Site investigation information must be prepared by competent person.'

#### Phase 1 Land Contamination Assessment or Preliminary Risk Assessment (PRA)

To establish the previous uses of land under consideration or land nearby or adjacent to it, and to identify potential sources of contamination, receptors and pathways.

#### Phase 2 Intrusive Site Investigation

Assessment consists of an intrusive site investigation with quantitative risk assessment from chemical analysis. The aim of a Phase 2 is to get a representation of the ground conditions on the entire Site.

#### Phase 3 Land Remediation

AEL-4491-PP1-990623

Required after Phase 1 and 2 and develops a land contamination remediation strategy to demonstrate how the site will be safely developed in respect to the land's end use.

#### Phase 4 Verification

Verification of remediation, provides documentary evidence that the remediation has been carried out to the required standard.

#### Watching brief

A watching brief is a document maintained on site during site clearance works to determine the presence of previously unidentified zones of soils or groundwater contamination. Documentation will need to be produced if a planning condition needs to be discharged. The developer should contact the contaminated land officer to agree the required extent of reporting.

It is best to employ a 'competent person' to provide ongoing advice, undertake a site inspections and produce or review and sign off a report.

The 'watching brief' will implement a series of actions as follows:

- General removal of topsoil and subsoils should be undertaken in a manner that limited exposure of soil to surface water run-off and allows visual and olfactory observation of all materials by a competent, designated clerk of works or equivalent;
- In an event that visual or olfactory evidence indicates a potential area of concern, then all excavation works will cease to ensure that potentially unknown sources of contamination from the ground or groundwater are not mobilised further;
- The clerk of works will contact the environmental advisor will determine what steps can be taken to isolate the material pending further investigation. The Environment Agency and Local Planning Authority will be informed and an appropriate course of action will be agreed;
- The potential area of concern will be appropriately assessed, primarily through sampling and laboratory analysis, and any requirement for remedial works will be identified. This scope of works must be agreed by the Local Planning Authority and Environment Agency prior to the works taking place.
- Records should be maintained of all areas investigated and actions taken to remediate these including validation/verification reports. These then should be submitted to the Local Planning Authority.

#### 1APP

Online planning portal for planning applications which is used by the Local Authorities.