Preliminary Environmental Risk Assessment

Proposed Residential Dwellings at Land South of Camp Road

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This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 and BS OHSAS 18001:2007)

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Comments

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Objectives

Waterman Infrastructure & Environment Limited ("Waterman") was instructed by Dorchester Group to undertake a Preliminary Environmental Risk Assessment for ground contamination for the proposed redevelopment of Land South of Camp Road for residential use. The Application Site is part of the wider Former RAF Upper Heyford.

Site Setting

Current Use	The Application Site is currently part of the Former RAF Upper Heyford which was a former NATO Airbase. The Application Site comprises a former school which is now disused and in disrepair. The school was operational when the United States Air force occupied the Application Site. A Petroleum Oil Lubrication (POL) supply pipeline is located to the south.
History	Until 1916 the Application Site was used as agricultural land, when it then became part of the wider Upper Heyford Airbase. From the early 1930s until 1950s it was occupied by the RAF and then by the United States Air Force until the mid-1990s. The school buildings, formally used as housing for families of servicemen was eventually refurbished and turned into a school in the 1970's.
Geology	Made ground on the Application Site comprises topsoil and may in areas be underlain by a thin layer of reworked natural material with fragments of concrete, brick and metal fragments. Considerable significant deposits of made ground are not expected. Natural underlying soils comprise sand and gravel and clay over interbedded limestone and sandstones. Mudstone is also known to exist at depth.
Controlled Waters	A Shallow and deep groundwater body are present beneath the site, both are principal aquifers. Groundwater beneath the site flows in a southerly direction

Conceptual Model

The Application Site has been disused since the airbase closed in 1993. The POL supply pipeline has been foam filled as part of remedial works. Previous investigations on or close to the Application Site included three trial pits and two boreholes, including the sampling of Gallos Brook (Stream I) to the south. Slightly elevated levels of TPH were detected in the shallow groundwater on the east side of the Application Site, although these reduced over the three month sampling period.

Although ground gas monitoring has not taken place on the Application Site it has been carried out in other areas of the Former RAF Upper Heyford with similar geology. Natural deposits on the Application Site are considered unlikely to be capable of generating significant volumes of ground gas.

Residual contamination may remain in shallow soils or made ground on the Application Site which may impact on the proposed use;

- Future Application Site users may come into direct contact, ingest or inhalation contact with potentially contaminated residual soils;
- Hydrocarbon impact on groundwater quality from of the presence of USTs and ASTs on the Application Site;
- Construction workers may come into direct contact with potentially contaminated residual soils;
- Off-site users may inhale potentially contaminated soils and dust during construction/demolition works; and

Direct contact of potential contaminated soils with proposed structures on the Application Site, including potable water supplies.

Conclusions

Based on the findings of the desk based assessment, the overall risk for the Application Site is considered to be Medium

Recommendations

The potential contamination receptor linkages identified in this report should be evaluated by a site investigation. The investigation should include soil and groundwater sampling and testing.

The findings of the investigation should be used to undertake a Generic Environmental Risk Assessment (GERA). This will determine the presence of contamination receptor linkages.

- Based on the findings of the GERA a Remediation Strategy should be prepared detailing how identified contamination receptor linkages will be broken;
- If during site works an area UST's or potentially contaminated land is identified, works should cease to operate and be reported to a competent person for further inspection;
- Construction workers should wear appropriate PPE and RPE and adopt appropriate hygiene practices; and
- A pre-demolition asbestos survey should be carried out to establish the quantity and type of asbestos (if any) is present on the Application Site.

1. Introduction

1.1 Objectives

Waterman Infrastructure & Environment Limited ("Waterman") was instructed by Dorchester Group to undertake a Preliminary Environmental Risk Assessment (PERA) for ground contamination for the Proposed Residential Dwellings at Land South of Camp Road, Heyford Park, Oxford, Oxfordshire, (here after termed 'the Application Site'). The Application Site is part of the Former RAF Upper Heyford is a former NATO air base where MOD operations ceased in the mid 1980's.

1.2 Proposed Development

It is proposed to redevelop the Application Site for residential use with the demolition of the former school and associated structures. The Proposed Development will include the construction of up to 300 residential dwellings with associated open space.

1.3 Regulatory Context

The National Planning Policy Framework (NPPF) sets out Government planning policy for England and how this is expected to be applied to development. Paragraphs 120 to 122 of Section 11 – Conserving and enhancing the natural environment of the NPPF relate to contaminated land matters and state the following:

"To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location. The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account. Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

Planning policies and decisions should ensure that:

- *the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining, pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation;*
- *after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and*
- *Adequate site investigation information, prepared by a competent person, is presented.*

In doing so, local planning authorities should focus on whether the development itself is an acceptable use of the land and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities."

In order to assess the contamination status of the Site, with respect to the proposed end use, it is necessary to assess whether the Site could potentially be classified as "Contaminated Land", as defined

in Part IIA of the Environmental Protection Act 1990 and Contaminated Land Statutory Guidance 2012. This is assessed by the identification and assessment of potential pollutant linkages. The linkage between the potential sources and potential receptors identified needs to be established and evaluated.

To fall within this definition, it is necessary that, as a result of the condition of the land, substances may be present in, on or under the land such that:

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) significant pollution of controlled waters is being caused, or there is significant possibility of such pollution being caused.

It should be noted that DEFRA has advised (Ref. Section 4, DEFRA Contaminated Land Statutory Guidance 2012) Local Authorities that land should not be designated as "Contaminated Land" where:

a) the relevant substance(s) are already present in controlled waters;

b) entry into controlled waters of the substance(s) from land has ceased; and

c) it is not likely that that further entry will take place.

These exclusions do not necessarily preclude regulatory action under the Environmental Permitting (England and Wales) Regulations 2010, which make it a criminal offence to cause or knowingly permit a water discharge of any poisonous, noxious or polluting matter to controlled waters. In England and Wales, under The Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009, a works notice may be served by the regulator requiring appropriate investigation and clean-up.

1.4 Constraints

The assessment was undertaken in accordance with the scope agreed between Waterman and Dorchester Group, as documented in Waterman's email dated 22 April 2016 with Waterman's standard Terms of Appointment.

The benefit of this report is made to Dorchester Group.

The information contained in this report is based on a review of available historical, geological, hydrogeological sources and Landmark Envirocheck Report.

Waterman has endeavoured to assess all information provided to them during this investigation, but makes no guarantees or warranties as to the accuracy or completeness of this information.

The scope of this report includes an assessment of the presence of asbestos containing materials in the ground at the site but not within buildings or structures or below ground structures (basements, buried service ducts and the like).

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

2. Methodology

This Preliminary Environmental Risk Assessment has been undertaken in general accordance with the Model Procedures for Management of Land Contamination (Contaminated Land Report 11 – Environment Agency, September 2004).

The report includes the following:

- collation of available documentary information;
- site reconnaissance;
- hazard identification and assessment;
- formulation of a Conceptual Model for the Site;
- identification of potentially unacceptable risks; and
- recommendations for further action.

3. Site Setting

3.1 Description and Reconnaissance

The Application Site is located at National Grid Reference 450960, 226530 located within Former RAF Upper Heyford, Oxfordshire.

Figure 1: Current Application Site Layout shown by Red Line.

Source: Pegasus Urban Design

The Application Site is located within Former RAF Upper Heyford to the south of Camp Road. When Former RAF Upper Heyford was occupied by the United States Air Force (USFA) during the 1960s/1970s, the Application Site was converted to provide housing for service families. The accommodation was eventually refurbished (according to historical maps in 1974 to 1976), turned into a secondary school with accompanying baseball courts, and grassed areas. Currently the former school on the Application Site is disused and in disrepair.

A report prepared by Aspinwall in 1997 indicated that a boiler house located in the centre of the Application Site contained three aboveground fuel tanks (AST's) and at least one underground fuel tank (UST). The report also identifies an additional boiler house located in the north east of the Application Site. This previously housed an aboveground fuel tank. The Aspinwall Report confirmed that this tank had been removed. Another AST was located on the south west of the Application Site, adjacent to the petroleum oil lubricant system (POL) supply pipeline. The POL system was present on Former RAF Upper Heyford Flying Field and consisted of above and below ground infrastructure of pipework, pumps, valves, storage tanks and aircraft ancillaries and was used to transport aviation fuel around the airbase. The POL system was previously connected to the national fuel pipeline which was present on the Application Site, adjacent to the southern boundary.

The POL pipeline has been cleaned, foam filled and made safe, but remains beneath eastern portion of the Application Site. A chamber where the POL previously connected with the National Fuel Pipeline is also present on the Application Site adjacent to the southern boundary. The Clean and Make Safe remedial work confirmed the POL was disconnected from the National Fuel Pipe Line. An interceptor is located on the south west of the Application Site. Water from this interceptor discharges directly into Gallos Brook.

There are no consents or licences listed to the Application Site.

A Site location plan and site layout plan are presented as Appendix A.

Current potentially contaminative site uses were identified during desk based research and are summarised in Table 1 below:

Table 1: Summary of potentially contaminative activities on-site

Potential Issue	Description
1 No. Aboveground Storage Tank adjacent to building 826.	Former boiler house with possible bulk storage facility for fuel oil. No visual evidence of contamination during Aspinwall investigation (1997).
1 No. Aboveground fuel oil tank adjacent to building 570.	Small fuel AST empty metal bunded tank. No visual evidence of contamination reported in the Aspinwall report (1997).
3 No. Aboveground fuel oil tanks adjacent to building 867.	Former boiler house with 3 No. AST's for fuel oil. No visual evidence of contamination during Aspinwall investigation (1997).
Underground storage tank adjacent to building 867.	Unknown number of tanks and unknown capacity. Tank is reported in Aspinwall (1997) investigation, however no further information is given.
Drainage	To the southern side of the Application Site an oil interceptor discharges to Gallos Brook.
POL Network	A supply pipeline associated with the POL network is fed from an offsite pipe to the south, the pipeline runs adjacent to the east of the former school. The pipeline has been cleaned and foam filled.

3.1.1 Site Surroundings

A summary of the current surrounding land uses, including relevant licences and consents, is shown in Table 2.

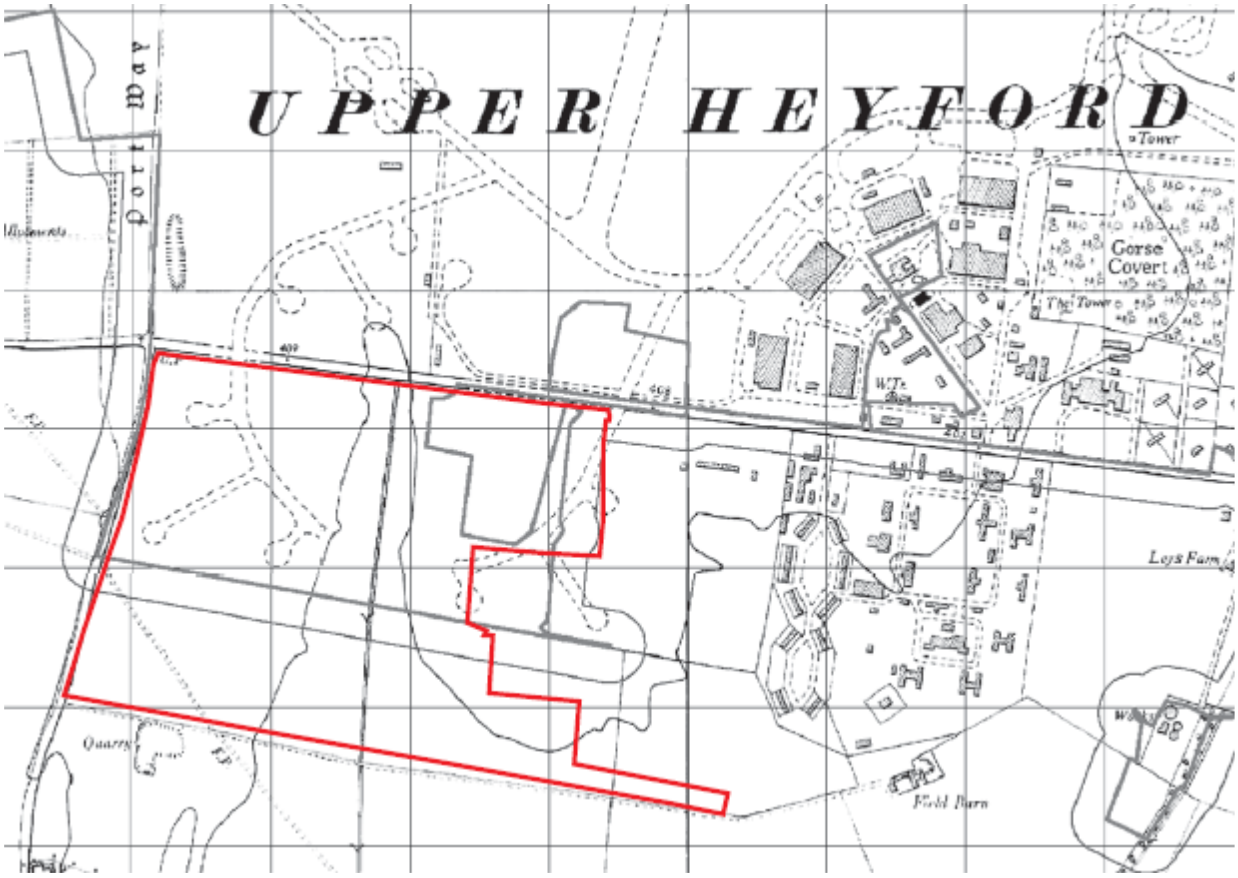
Table 2: Summary of surrounding land uses

Location	Description
North	Camp Road and Former RAF Upper Heyford Flying Field (disused) with agricultural farmland and disused buildings beyond.
East	Baseball pitches and football pitch associated with the former school. Adjacent to this are recently built houses.
South	Predominantly agricultural farmland.
West	Agricultural farmland with Upper Heyford village beyond.

No notification of Installations Handling Hazardous Substances (NIHHS), Planning Hazardous Substances Consents, licenced Waste Management Facilities or landfills are registered to the Application Site.

3.2 History

Figure 2: Historical Site Use



A review of historical maps obtained from Landmark Information Group Historical Maps has been undertaken, and a summary of relevant information is shown in chronological order in Table 3.

Table 3: History for the subject site

Source	Site	Surroundings
1884 – 1885 OS Map (1:10,000)	The Application Site is in use as Agricultural Farmland.	Upper Heyford village is approximately 250m to the west of the Application Site boundary.
1900 OS Map (1:10,000)	No significant changes.	A ***quarry*** is located approximately 20m to the south.
1923 OS Map (1:10,000)	No significant changes.	No significant changes.
Aerial Photograph 1947- 1949 (1:10,000)	No significant changes (It is considered likely due to aerial photography restrictions during WWII this photograph is not representative of site activities and actually the airbase was fully operational during this period).	No significant changes.
1955 OS Map (1:10,000)	No significant changes.	No significant changes.
1966 OS Map (1:10,000)	The Application Site is now referred to as RAF Upper Heyford with roads and taxiways located across the Application Site.	RAF Upper Heyford is located immediately north of the Application Site boundary. Buildings associated with the airfield are located (approximately 400m) to the north east and east of the Application Site. Land to the north is occupied by ***runways***, ***taxiways***, ***aircraft stands***, ***hardened aircraft shelters***, ***fuel storage***, ***tanks*** *and* ***maintenance areas***.
OS Map 1974 – 1976 (1:2,500) 1980 – 1982 (1:10,000)	The Application Site has undergone further development and is occupied by the USAF. The Application Site now consists of a series of small buildings, including an ***Electricity Sub Station*** and Water Tower. The buildings were originally used as houses for families living on the airbase. Once the airbase was expanded, these were converted into the 'Upper Heyford American High School' with a playing field to the south and boiler house in the centre A ***pipeline*** feeds into the Application Site from the south which supplies the POL system.	A school recreation park and running track are located 10m – 20m to the east. Land to the immediate west remains undeveloped. Housing is located approximately 140m east. Land to the south predominantly remains as undeveloped farmland. A ***pipeline*** feeds into the Application Site from the south which has been combined into Gallos Brook. The ***quarry*** located 20m to the south is no longer shown.
1993 OS Map (1,10,000)	No significant changes denoted. Operations at the air base were closed in 1993.	No significant changes.
2006 OS Map (1:10,000)	School buildings are still present across the Application Site, but are disused and in disrepair.	No significant changes.
2014 OS Map (1:10,000)	No significant changes	Extensive demolition and construction works have taken place in the surrounding areas to facilitate the building of residential developments.

[a] potentially contaminative uses are shown in bold italics.

3.2.1 Previous Environmental Assessments

A number of Environmental Assessments have been undertaken across the whole of Former RAF Upper Heyford. Table 4 below lists the reports which are considered supplementary to this PERA.

Table 4: List of previous environmental reports reviewed

Author	Title	Date and Reference
DRPS	RAF Upper Heyford Radiation Monitoring Report	(1995)
Aspinwall	Ground Investigation RAF Upper Heyford	(1997)
Waterman Group	Former RAF Upper Heyford – Flying Field and Hydrological Characterisation and Groundwater Quality Assessment.	EED10658-109-R-9.3.1-FA (2012)
Vertase	POL System – Clean and Make Safe, Upper Heyford, Oxfordshire. Contract Completion Report.	1246DOR (2012)

3.2.2 RAF Upper Heyford Radiation Monitoring Report, DRPS Report 9/95, April 1995

Radiological testing was carried out on the wider Former RAF Upper Heyford Site and it was not deemed high risk by the (Ministry of Defence) MOD. Testing carried out in targeted areas indicated radiation levels were consistent with normal background concentrations

3.2.3 Aspinwall 1997 – Ground Investigation RAF Upper Heyford

In 1997 a ground investigation was undertaken by others and reported by Aspinwall. The area covered by the investigation included the former administrative and residential area of the air base (currently referred to as the New Settlement Area (NSA)) and the Flying Field, including the area south of camp road, including the former school.

Three trial pits and one borehole were carried out on the Application Site as part the assessment.

A review of the trial pit and borehole logs carried out on the Application Site indicated the underlying drift consisted of a clayey, sandy, silty deposit with varying quantities of limestone gravels and cobbles. Made ground encountered predominantly consisted of reworked natural with intermixed fragments of concrete, breeze block, kerbstone, tarmac and wire. Visual and olfactory evidence of hydrocarbon odour was present in a borehole located in the area of the former POL supply pipeline to the south of the Application Site.

Three trial pits were undertaken in the area of the former school to target areas surrounding the location of AST's and UST's. One trial pit was reported to have up to 0.5m of Made Ground and was located in an area of a UST. The two remaining trial pits did not have a large quantity of made ground or fill materials.

One borehole was undertaken adjacent to the former POL supply pipeline to the south of the Application Site. The borehole was drilled to 16m with a screening length from 13m to 16m targeting the deep aquifer. A moderate hydrocarbon odour was noted at 0.3m and 1.86m below ground level (bgl).

A number of soil samples were submitted for chemical analysis as part of the investigation. Samples collected from the Application Site indicated one trial pit had a Solvent Extractable Matter (SEM) value above 5000mg/kg at 0.95m bgl, thought to be associated with asphalt. The trial pit was also located in an

area of an AST. The reminder of the samples showed no elevated concentrations of contaminants above the Generic Assessment Criteria at the time.

As part of the 1997 Ground Investigation, samples were also submitted for a range of organic analysis including Dichlorin Methanol, SEM, Mineral Oil, Total Non-Volatile Aromatics, Non Specific Organics/Resins, Diesel Range Organics, Total Solvent Extract and Total Volatiles. These methodologies are predominately generic types of organic analysis and include the combined concentrations of many different organic compounds. More recent risk characterisation has been undertaken to define the hazardous associated with individual Poly-aromatic Hydrocarbons and Total Petroleum Hydrocarbon fractions. Consequently, the results of the previously completed analysis cannot be compared to the current GACs.

3.2.4 Waterman November 2012 – Former RAF Upper Heyford – Flying Field and Hydrological Characterisation and Groundwater Quality Assessment (Ref EED10658-109-R-9.3.1-FA)

An intrusive investigation was carried out in April and May of 2011 to examine the hydrogeological characteristics of the Flying Field and adjacent areas to determine to what extent groundwater quality has been impacted by historic activities. The eastern extent of the Application Site fell within this investigation area.

Former RAF Upper Heyford comprised a number of areas which were considered sources of potential contamination. This is included the flying field to the north of the Application Site, which comprised a runway with associated taxi ways and aircraft stands, hardened aircraft shelters, the POL, maintenance areas, offices, warehouses and undeveloped grassed areas.

A POL pipeline was present at the southern boundary of the Application Site.

The findings of the investigation revealed that the Flying Field is underlain by a series of interbedded fractured limestones, sandstones, mudstones and siltstones of varying thickness which is underlain at depth by a significant deposit of mudstone

A shallow and deep groundwater body were encountered underlying Flying Field. Significant mixing of the water bodies is considered likely, particularly at the edges of the Flying Field. Groundwater flow in the upper groundwater body was found to be radiating in all directions from northern central area of the Flying Field. Groundwater in the deep water body was found to be flowing from a high point located on the northern boundary in a south westerly, southerly and south easterly direction.

Groundwater quality underlying the investigation area was considered good and did not pose a risk to off Site receptors. Specific contamination patterns, resembling plumes or contamination watersheds, were not obvious. The report indicated that these factors indicate the lack of a gross site-wide contamination and that the presence of an onsite reservoir of free product is remote.

BH201 was drilled to target the shallow aquifer in the Application Site as part of the assessment. This was north of the POL supply pipeline which is located adjacent to the south of the Application Site boundary. The results of groundwater sampling from this borehole indicated elevated levels of phenol and TPH during the three month sampling period (June to August). Phenol exceeded the limit of detection (LOD) at 0.90 µg/l in June, but exceedances were not recorded above LOD for July or August.

TPH exceedances were also detected in BH201 which is down gradient of two of the most significantly impacted boreholes (BH223 and BH224) located to the north of the Application Site. However,

concentrations of TPH detected in BH201 show that the TPH concentrations reduced significantly after reaching BH201.

As part of the assessment of Former RAF Upper Heyford Flying Field surface water samples were collected from streams issuing at the edges of the Former RAF Upper Heyford. One of these locations (Stream I) was to the south of the Application Site and received water from an interceptor next to the southern boundary. The results of this analysis indicated that the quality of the surface water in the streams was reasonably good.

3.2.5 POL System – Clean and Make Safe Upper Heyford, Oxfordshire. Contract Completion Report February 2012.

The report details the activities undertaken during the POL Clean and Make Safe works. It confirmed all tanks of the POL system have been cleaned emptied and grouted and pipe work has been cleaned and foam filled. This includes the supply pipe to the south and east of the Application Site. During these works it was also confirmed that the POL has been disconnected from the National Fuel Pipe Line.

A planning condition associated with the redevelopment of Former RAF Upper Heyford was discharged to the satisfaction of the Environment Agency on completion of these works.

3.3 Geology

The geology beneath the Application Site has been established from the British Geological Survey (BGS) 1: 50,000 scale Geological Map, Sheet 281, Chipping Norton Edition, BGS borehole logs and previous intrusive investigations undertaken by Waterman and Aspinwall.

A summary of the geology is provided in Table 5 below:

Table 5: Site geology

Stratum	Area Covered	Estimated Thickness (m)	Typical Description
Top Soil	Whole Application Site	0.1 - 0.3	Sandy gravelly topsoil
Made Ground	Whole Application Site	0.3 – 0.5	Concrete, breeze block, kerbstone, tarmac and wire.
Sandy Gravel	Whole Application Site	2.8 – 3.0	Sandy gravel with limestone cobbles becoming increasingly dense at depth.
Limestone	Whole Application Site	Proved to 10.0m	Occasionally fissured pale grey crystalline limestone with occasional shell fragments, weathered at top of strata.
Sandstone	Whole Application Site	Proved to 13.0m	Occasionally fissured yellow and pale grey calcareous sandstone with occasional shell fragments.
Siltstone/Mudstone	Whole Application Site	Proved to 7m	Grey Siltstone and pale grey mudstone occasional bands of coarse shelly limestone.

3.3.1 Ground Stability

The BGS map did reveal any structural, geomorphological or geochemical features on or near to the Application Site.

The Application Site is not in an area that could be affected by coal mining activity.

3.3.2 Ground Gas

According to the Landmark Envirocheck report and Health Protection Agency, the Application Site is not located in an area of elevated radon gas levels (a naturally occurring gas). Correspondingly, radon protection measures are not required in the development of new buildings or extensions.

There are no registered landfills within 500m of the subject Application Site.

3.4 Controlled Waters

3.4.1 Surface Waters

The nearest surface water to the Application Site is Gallos Brook to the south which discharges to the River Cherwell further south. A surface water oil interceptor is located to the south of the Application Site which issues into Gallos Brook. As detailed in Section 3.2.3 the results of the surface water testing from streams at the edge of the Former RAF Upper Heyford, including Stream I to the south of the Application Site, indicated that surface water quality was reasonably good, given the former historic activity.

Currently there are no discharge consents registered to the Application Site. The nearest consent is located 4 miles south east and is consented to discharge combined sewage and trade waste into Gallos Brook to the south of the Application Site. The state of the consent is classed as a 'New Consent by Application' (Water Resources Act, 1991, Section 88).

There are no abstraction licences registered to the Application Site or within the surrounding areas.

According to the EA's indicative flooding data, the Application Site is not located in an area of fluvial flooding or on a floodplain. There are no recorded flood defences in the area.

3.4.2 Groundwater

According to the EA Groundwater Vulnerability Map and intrusive investigations undertaken by Waterman the geological deposits underlying the Application Site are classified as per Table 6 below:

Table 6: Summary of hydrogeological properties of the main geological strata

Stratum	EA Classification	Hydrogeological Significance
Great Oolite Limestone	Principal Aquifer	Strategically important for abstraction and maintaining flow on rivers.
Interior Oolite Limestone	Principal Aquifer	Strategically important for abstraction and maintaining flow on rivers.
Lias Group	Non-productive Strata	Relatively impermeable with insignificant reserve of mobile groundwater.

The Application Site is not located within a groundwater Source Protection Zone (I, II, III).

From the Waterman Report (ref EED10658 – R - 9.3.1.FA) it has been established a shallow and deep groundwater body both underlay the Application Site. The report also indicated that groundwater flow direction beneath the Application Site in both the shallow and deep aquifers is in a south easterly direction.

Groundwater depth in BH106 measured between 15.7m and 15.9m bgl in the deep aquifer and between 3.51 and 3.60 in the shallow aquifer in BH201. There are no groundwater abstractions within 500m of the Application Site.

The findings of the Waterman Report indicated that groundwater underlying the eastern half of the Application Site was generally of good quality and did not pose a risk to offsite receptors.

4. Preliminary Conceptual Site Model

The Preliminary Conceptual Site Model for the Application Site is presented in Table 7 below. The risk rating has been assessed qualitatively using the criteria given in Appendix D. A graphical representation is presented in Appendix A.

Table 7: Preliminary Conceptual Application Site Model

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
Human Health					
Existing and Future Site users and Maintenance Staff	Contaminated groundwater on Application Site from historic activities and ASTs and USTs	Dermal Contact, Ingestion.	**Medium**	The Application Site is currently unused. There will be no contact with deep groundwater and limited contact with shallow groundwater during redevelopment works. The results of onsite groundwater monitoring detected low concentrations of TPHs. The risk due to vapours is considered not to be significant given available data. The POL supply pipeline, present on the southern portion of the Application Site, has been cleaned and made safe. The remainder of the POL on the land to the north has also been cleaned and made safe. A potential source of groundwater contamination has therefore been removed. The status of the UST on the Application Site not known, therefore residual contamination could be locally impacting shallow groundwater and Gallos Brook (Spring I). Groundwater monitoring on the eastern portion of the Application Site indicated marginally elevated levels of TPH that did not pose a risk to offsite receptors. A site investigation on the western portion of the Application site will determine groundwater quality and subsequent remedial actions if required. As part of the redevelopment remaining USTs and ASTs tanks would be removed and made safe, and therefore would remove the potential source.	**Low**

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
	Contaminated soil and made ground.	Dermal Contact, Ingestion and Inhalation.	**Medium**	Hydrocarbon odours were noted in soils in BH106 close to the POL supply pipeline on the south of the Application Site. Employees / maintenance workers currently using the Application Site are only there for short periods and are not in contact with soil. USTs and ASTs were present on the western portion of the Site. It is not known if they impacted on surrounding soil quality. A site investigation will determine the contamination status of the Application Site. Based on the outcome of the investigation mitigation measures will be employed to break the contamination receptor linkages.	**Low**
	Petroleum Oil and Lubrication Storage (POL) supply pipeline and Surface water interceptor	Migration through soil and groundwater. Dermal contact and ingestion.	**Medium**	The POL supply pipelines present on the southern and eastern portion of the Application Site have been cleaned and made safe. The remainder of the POL on the rest of the Former RAF Upper Heyford also been cleaned and made safe. Future site users should not be exposed to the POL supply pipeline. If the surface water interceptor is not managed and appropriately maintained, a build-up of oily liquid could leak from the interceptor. Currently the oil interceptors are maintained across Former RAF Upper Heyford.	**Low**
	Hydrocarbon vapours	Inhalation, migration through soils and groundwater.	**Medium**	POL supply pipeline located on the Application Site has been foam filled and made safe. The remainder of the POL on the rest of the Former RAF Upper Heyford has also been cleaned and made safe. It is unknown if the USTs and AST have been removed from the Application Site, however, the risk due to vapours is considered not significant as volatile fractions are unlikely to be present given the age of any fuel impacted soil or groundwater. This is confirmed by the results of groundwater analysis. A site investigation will determine the contamination status of the Application Site. Based on the outcome of the investigation mitigation measures will be employed to break the contamination receptor linkages.	**Low**

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
	Historic activities including spills and accidents.	Migration through soils, and groundwater.	**Low**	Former RAF Upper Heyford is no longer in operation as an active air base and there is no bulk storage of oils, solvents or chemicals existing on the Application Site. The POL supply pipeline present on the southern portion of the Application Site has been cleaned and made safe. The remainder of the POL on the rest of Former RAF Upper Heyford has also been cleaned and made safe. Future Application Site users should not be exposed to the POL pipeline.	**Low**
Offsite residents/users	Contaminated groundwater migrating off Application Site.	Migration off Application Site. Dermal contact, inhalation and ingestion.	**Low**	It is considered that there will be no opportunity for contact with potentially contaminated groundwater migrating off the Application Site. The results of groundwater analysis for the east of the Application Site indicates that low concentrations of TPH was present. The risk of vapours is not considered significant due to low concentrations TPHs detected. A site investigation on the western portion of the Application Site will determine groundwater quality and subsequent remedial actions if required. As part of the redevelopment remaining USTs and ASTs tanks would be removed and made safe, and therefore would remove the potential source.	**Low**
	Dust generated as part of demolition works	Direct contact, Inhalation and ingestion.	**Medium**	Offsite users may be exposed to dust generated by demolition. Appropriate measures should be implemented during the construction works to prevent fugitive emissions.	**Low**
Construction Workers	Contaminated groundwater. Ground gas and hydrocarbon vapours.	Direct contact, inhalation, ingestion and dermal absorption.	**Medium**	It is unknown if all USTS and AST's have been made safe and removed from the Application Site and therefore residual contamination could exist in the soils or shallow groundwater. Appropriate PPE together with other suitable control measures, should be utilised. Any works involving ground excavation and/or entrance into confined spaces will be minimised. Where necessary, such works would be undertaken using normal hygiene and safe working procedures, and with the Confined Space Regulations. All construction works will be subject to legislative and best practice.	**Low**

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
Property					
Onsite structures and services	Potential residual contamination in Made Ground and groundwater.	Direct Contact.	**Low**	Considerable deposits of made ground not are expected on site. Any structures or services that could be exposed to underlying material will be designed to be resistant to contamination, e.g. concrete would be suitably designed in accordance with BRE Special Digest 1 “Concrete in aggressive ground”.	**Low**
Controlled Waters					
Surface waters	Offsite Petroleum Oil and Lubrication Storage (POL)	Migration through soil.	**Low**	The POL pipeline has been cleaned and made safe. The results of groundwater analysis indicates that significant hydrocarbon contamination is not present. Results of monitoring collected from a stream receiving drainage from the Application Site did not indicate considerable amounts of contamination.	**Low**
	Historic activities including spills and accidents. Oil/fuel related accidents during construction works.	Migration through soil	**Low**	The results of groundwater analysis indicates that significant hydrocarbon contamination is not present on the eastern portion of the Site. Results of monitoring collected from a stream receiving drainage from the Application Site did not indicate considerable amounts of contamination. Protection measures shall be put in place to ensure fuel is stored correctly during constructions works. Spill response procedures shall also be in place.	**Low**
	Surface Water interceptor	Direct contact, ingestion and dermal absorption	**Low**	Results of monitoring collected from a stream receiving drainage from the interceptor did not indicate significant amounts of contamination.	**Low**
Groundwater	Offsite Petroleum Oil and Lubrication Storage (POL)	Migration through soil.	**Low**	The POL pipeline present on the southern portion of the Application Site has been cleaned and made safe. The remainder of the POL on the rest of the Former RAF Upper Heyford has also been cleaned and made safe. The results of onsite groundwater monitoring has indicated that significant concentrations of TPHs are not present.	**Low**

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
	Historic activities including spills and accidents and oil and fuel storage. Oil/fuel related accidents during construction works.	Migration through soil	**Low**	The results of onsite groundwater monitoring has indicated that significant concentrations of TPHs are not present. Additional investigation shall be carried out to determine if the former ASTs and USTs caused an impact on the western portion of the Site. As part of the redevelopment remaining USTs and ASTs tanks would be removed and made safe, and therefore would remove the potential source.	**Low**

5. Conclusions

Based on the findings of the desk based assessment, the overall risk for the Application Site is considered to be **Medium**. However following completion of the Proposed Development including incorporation of relevant remedial measures the risk would be reduced to **Low**.

The Application Site has not historically been known to store chemicals since the airbase was closed in 1993 and the POL supply pipeline has been foam filled, made safe and cleaned.

Although ground gas monitoring has not taken place on the Application Site, it has been carried out in other areas of Former RAF Upper Heyford with similar geology. Natural deposits on the Application site are considered not to be capable of generating significant volumes of ground gas.

Residual contamination may remain in shallow soils or made ground on the Application Site which may impact on the proposed use of the Application Site;

- Future Application Site users may come into direct contact, ingest or inhalation contact with potentially contaminated residual soils;
- Hydrocarbon impact on groundwater quality from of the presence of USTs and ASTs on the western portion of the Application Site;
- Construction workers may come into direct contact with potentially contaminated residual soils;
- Off-site users may inhale potentially contaminated soils and dust during construction/demolition works; and
- Direct contact of potential contaminated soils with proposed structures on the Application Site, including potable water supplies.

6. Recommendations

The potential contamination receptor linkages identified in this report should be evaluated by a site investigation. The investigation should include soil sampling and groundwater testing.

The findings of the investigation should be used to produce a Generic Environmental Risk Assessment (GERA). This will determine the presence of contamination receptor linkages.

In addition:

- Based on the findings of the GERA a Remediation Strategy should be prepared detailing how identified contamination receptor linkages will be broken;
- If during site works an area UST's or potentially contaminated land is identified, works should cease to operate and be reported to a competent person for further inspection;
- Construction workers should wear appropriate PPE and RPE and adopt appropriate hygiene practices; and
- A pre-demolition asbestos survey should be carried out to establish the quantity and type of asbestos (if any) is present on the Application Site.

GLOSSARY

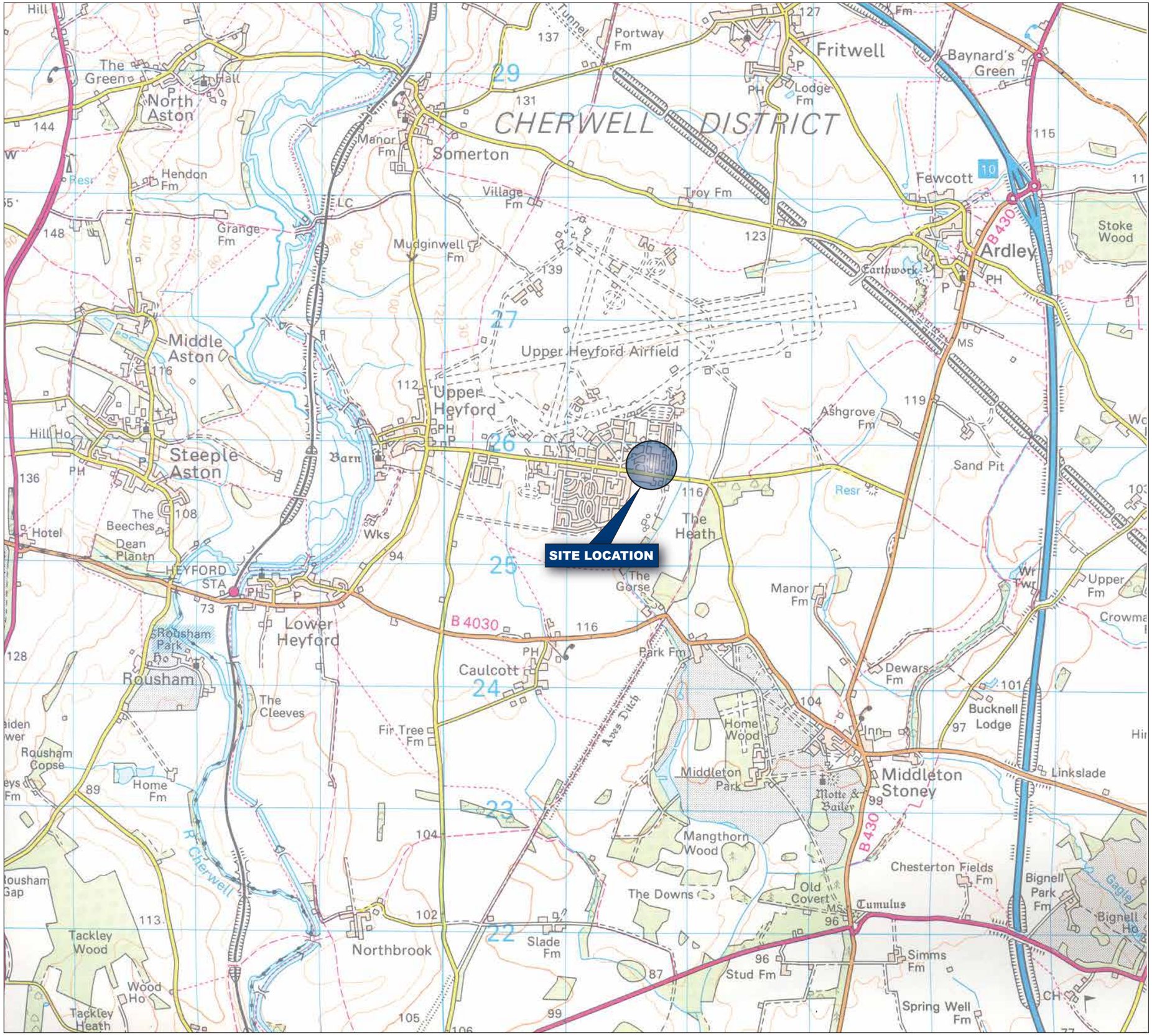
For the purpose of this report, the following terms and definitions apply (see BS 10175:2001).

Accuracy	Level of agreement between true value and observed value.
Conceptual Exposure model	Textual and or schematic hypothesis of the nature and sources of contamination, potential migration pathways (including description of the ground and groundwater) and potential receptors, developed on the basis of the information from the preliminary investigation and refined during subsequent phases of investigation and which is an essential part of the risk assessment process. **Note 1:** The conceptual exposure model is initially derived from the information obtained by the preliminary investigation. This conceptual model is used to focus subsequent investigations, where these are considered to be necessary, in order to meet the objectives of the investigations and the risk assessment. The results of the field investigation can provide additional data that can be used to further refine the conceptual model.
Contamination	Presence of a substance which is in, on or under land, and which has the potential to cause significant harm or to cause significant pollution of controlled water. **Note 1:** There is no assumption in this definition that harm results from the presence of the contamination. **Note 2:** Naturally enhanced concentrations of harmful substances can fall within this definition of contamination. **Note 3:** Contamination may relate to soils, groundwater or ground gas.
Controlled water	Inland freshwater (any lake, pond or watercourse above the freshwater limit), water contained in underground strata and any coastal water between the limit of highest tide or the freshwater line to the three mile limit of territorial waters. **Note 1:** See Section 104 of The Water Resources Act 1991.
Harm	Adverse effect on the health of living organisms, or other interference with ecological systems of which they form part, and, in the case humans, including property.
Hazard	Inherently dangerous quality of a substance, procedure or event.
Pathway	Mechanism or route by which a contaminant comes into contact with, or otherwise affects, a receptor.
Precision	Level of agreement within a series of measurements of a parameter.
Receptor	Persons, living organisms, ecological systems, controlled water, atmosphere, structures and utilities that could be adversely affected by the contaminant(s).
Risk	Probability of the occurrence, magnitude and consequences of an unwanted adverse effect on a receptor.
Risk assessment	Process of establishing, to the extent possible, the existence, nature and significance of risk.
Sampling	Methods and techniques used to obtain a representative sample of the material under investigation.
Soil	Upper layer of the earth's crust composed of mineral parts, organic substance, water, air and living matter. **Note 1:** In accordance with BS 10175:2001 the term soil has the meaning ascribed to it through general use in civil engineering and includes topsoil and subsoil; deposits such as clays, silt, sand, gravel, cobbles, boulders and organic deposits such as peat; and material of natural or human origin (e.g. fills and deposited wastes). The term embraces all components of soil, including mineral matter, organic matter, soil gas and moisture, and living organisms.
Source	Location from which contamination is, or was, derived. **Note 1:** This could be the location of the highest soil or groundwater concentration of the contaminant(s).
Uncertainty	Parameter, associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the measurement.

APPENDICES

Appendix A Application Site Plans

- **Site Location Plan**
- **Site Plan**
- **Conceptual Model**



Not to Scale

Project Details	WIB14371-100: Upper Heyford - Land South of Camp Road
Figure Title	Figure A1: Site Location Plan
Figure Ref	WIB14371-100_GR_PERA_A1
Date	June 2016
File Location	\\nt-lncs\weedl\projects\eed14371\100\graphics\pera321\issued figures

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KEY:

- APPLICATION AREA (12.04HA)
- RESIDENTIAL LAND USE (8.90HA INC. GREEN CORRIDORS)
- PUBLIC OPEN SPACE PROVISION (ALLOTMENT PROVISION ASSUMED OFF SITE. INCLUDES ATTENUATION AREA) (2.90HA)
- ACCESS POINTS
- CAMP ROAD
- IZZARD DRIVE
- PRIMARY SPACE
- SECONDARY SPACE
- PRINCIPAL ROUTE
- MEWS / SHARED SURFACE
- LANE
- CYCLEWAY
- PEDESTRIAN FOOTPATH
- GREEN CORRDIOR
- NEIGHBOURHOOD EQUIPPED AREA OF PLAY
- LOCAL EQUIPPED AREA OF PLAY
- LOCAL AREA OF PLAY
- TRIM TRAIL
- EXISTING PORTWAY ROUTE
- EXISTING VEGETATION TO BE RETAINED
- INDICATIVE ENHANCEMENT VEGETATION
- ATTENUATION POND
- 3 STOREY DWELLINGS TO BE CIRCA 13M HEIGHT ABOVE FINISHED GROUND LEVEL
  THE REMAINDER WILL BE 2/2.5 STOREY DWELLINGS AT UP TO CIRCA 11.5M HEIGHT ABOVE FINISHED GROUND LEVEL

NOTE:
GROUND LEVEL ALLOWS FOR MAXIMUM 2M +/- EXISTING GROUND LEVEL, THIS ESTABLISHES APPROPRIATE DRAINAGE, BALANCE CUT & FILL AND BUILDING/ROAD ALIGNMENT TO CONSISTENT LEVEL.

Project Details	WIB14371-100 Upper Heyford - Land South of Camp Road
Figure Title	Figure A2: Site Plan
Figure Ref	WIB14371-100_GR_PERA_A2D
Date	November 2016
File Location	\\nt-lncs\weedl\projects\eed14371\100\graphics\pera321\issued figures

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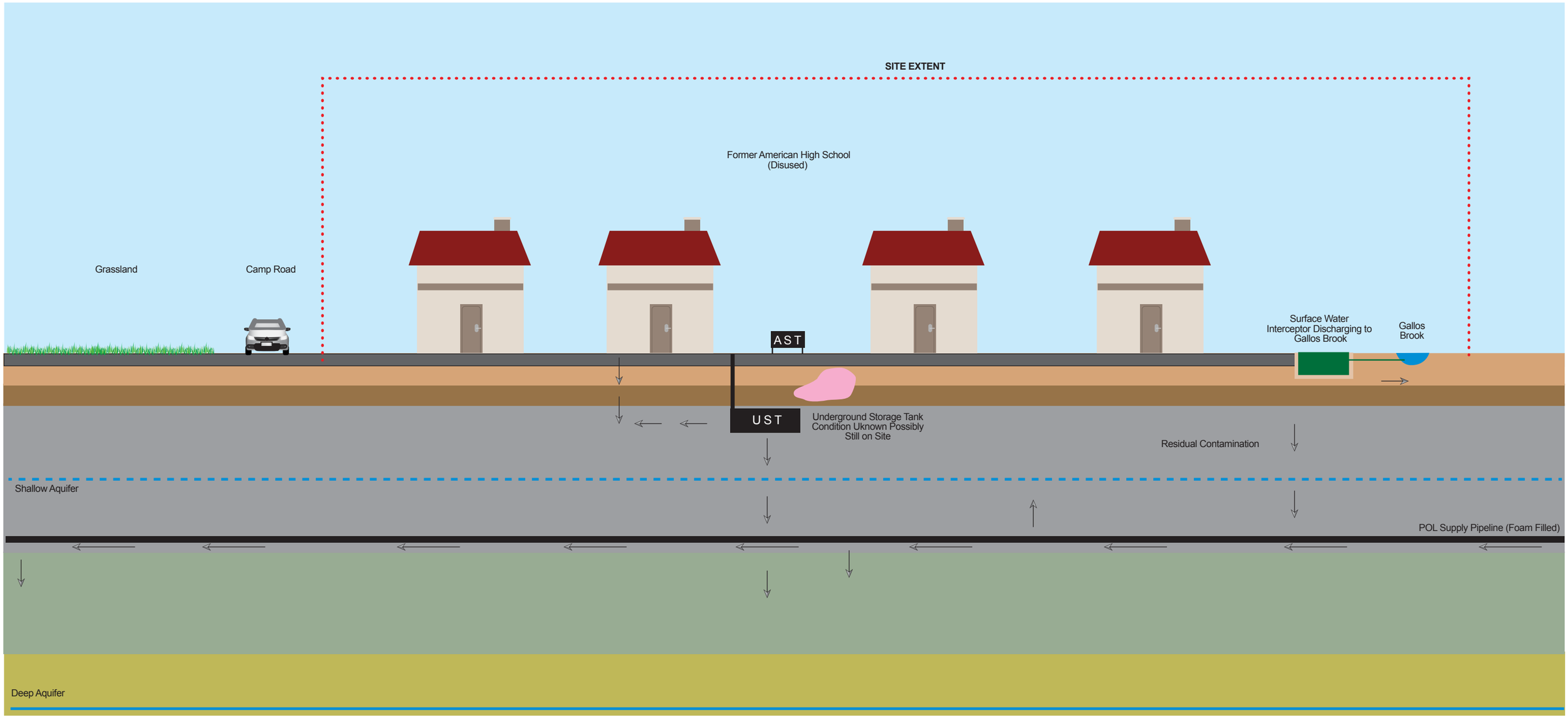


Hardstanding

Top Soil

Made Ground

Sandy Gravel

Limestone

Sandstone

Vertical Migration

Horizontal Migration

AST Above Ground Storage Tanks Capacity / Condition Unknown. Uknown if Tanks are still Present on SIte

UST Underground Ground Storage Tanks Capacity / Condition Unknown. Uknown if Tanks are still Present beneath the SIte

Project Details	WIB14371-100: Upper Heyford - Land South of Camp Road
Figure Title	Figure A3: Conceptual Site Model
Figure Ref	WIB14371-100_GR_PERA_A3
Date	June 2016
File Location	\\nt-lncs\weedl\projects\eed14371\100\graphics\pera321\issued figures

Appendix B Consultation Information

- **Landmark Technical Report**

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
56261419_1_1

Customer Reference:
E10658 - 109

National Grid Reference:
450960, 226530

Slice:
A

Site Area (Ha):
460.65

Search Buffer (m):
50

Site Details:

Heyford Park
Oxfordshire

Client Details:

Mr J Coates
Waterman Energy Environment & Design Ltd
Clink Street
Pickfords Wharf
London
SE1 9DG

Contents

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.
For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Copyright Notice

Natural England Copyright Notice

Ove Arup Copyright Notice

Peter Brett Associates Copyright Notice

Radon Potential dataset Copyright Notice

Report Version v47.0

Data Type	Page Number	On Site	0 to 50m (*up to 250m)
Agency & Hydrological			
Contaminated Land Register Entries and Notices			
Discharge Consents	pg 1		4
Enforcement and Prohibition Notices			
Integrated Pollution Controls			
Integrated Pollution Prevention And Control			
Local Authority Integrated Pollution Prevention And Control			
Local Authority Pollution Prevention and Controls	pg 1	2	
Local Authority Pollution Prevention and Control Enforcements			
Nearest Surface Water Feature	pg 2	Yes	
Pollution Incidents to Controlled Waters	pg 2	4	
Prosecutions Relating to Authorised Processes	pg 2		1
Prosecutions Relating to Controlled Waters			
Registered Radioactive Substances	pg 3	2	
River Quality			
River Quality Biology Sampling Points			
River Quality Chemistry Sampling Points			
Substantiated Pollution Incident Register	pg 3	1	
Water Abstractions			
Water Industry Act Referrals			
Groundwater Vulnerability	pg 3	Yes	n/a
Bedrock Aquifer Designations	pg 3	Yes	n/a
Superficial Aquifer Designations	pg 3	Yes	n/a
Source Protection Zones			
Extreme Flooding from Rivers or Sea without Defences			
Flooding from Rivers or Sea without Defences			
Areas Benefiting from Flood Defences			
Flood Water Storage Areas			
Flood Defences			
Detailed River Network Lines	pg 4	Yes	Yes
Detailed River Network Offline Drainage			

Summary

Data Type	Page Number	On Site	0 to 50m (*up to 250m)
Waste			
BGS Recorded Landfill Sites			
Historical Landfill Sites			
Integrated Pollution Control Registered Waste Sites			
Licensed Waste Management Facilities (Landfill Boundaries)			
Licensed Waste Management Facilities (Locations)			
Local Authority Recorded Landfill Sites			
Registered Landfill Sites			
Registered Waste Transfer Sites			
Registered Waste Treatment or Disposal Sites			
Hazardous Substances			
Control of Major Accident Hazards Sites (COMAH)	pg 6	2	2
Explosive Sites	pg 6	2	
Notification of Installations Handling Hazardous Substances (NIHHS)			
Planning Hazardous Substance Consents			
Planning Hazardous Substance Enforcements			
Geological			
BGS 1:625,000 Solid Geology	pg 7	Yes	n/a
BGS Estimated Soil Chemistry	pg 7	Yes	Yes
BGS Recorded Mineral Sites	pg 8	2	1
BGS Urban Soil Chemistry			
BGS Urban Soil Chemistry Averages			
Brine Compensation Area			n/a
Coal Mining Affected Areas			n/a
Mining Instability			n/a
Man-Made Mining Cavities			
Natural Cavities			
Non Coal Mining Areas of Great Britain			
Potential for Collapsible Ground Stability Hazards	pg 9	Yes	
Potential for Compressible Ground Stability Hazards			
Potential for Ground Dissolution Stability Hazards	pg 9	Yes	
Potential for Landslide Ground Stability Hazards	pg 9	Yes	
Potential for Running Sand Ground Stability Hazards			
Potential for Shrinking or Swelling Clay Ground Stability Hazards			
Radon Potential - Radon Affected Areas	pg 10	Yes	n/a
Radon Potential - Radon Protection Measures			n/a

Data Type	Page Number	On Site	0 to 50m (*up to 250m)
Industrial Land Use			
Contemporary Trade Directory Entries	pg 11	18	5
Fuel Station Entries			
Sensitive Land Use			
Areas of Adopted Green Belt			
Areas of Unadopted Green Belt			
Areas of Outstanding Natural Beauty			
Environmentally Sensitive Areas			
Forest Parks			
Local Nature Reserves			
Marine Nature Reserves			
National Nature Reserves			
National Parks			
Nitrate Sensitive Areas			
Nitrate Vulnerable Zones	pg 14	1	
Ramsar Sites			
Sites of Special Scientific Interest			
Special Areas of Conservation			
Special Protection Areas			

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: North Oxfordshire Consortium Ltd. Property Type: Undefined Or Other Location: Heyford Park, Upper Heyford, Near Bicester, Oxfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CATM.2805 Permit Version: 1 Effective Date: 27th March 1997 Issued Date: 27th March 1997 Revocation Date: Not Supplied Discharge Type: Sewage And Trade Combined - Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Gallows Brook **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 10m	A4NE (SE)	4	1	451710 225280
2	**Discharge Consents** Operator: North Oxfordshire Consortium Ltd. Property Type: Undefined Or Other Location: Heyford Park, Upper Heyford, Near Bicester, Oxfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CATM.2849 Permit Version: 1 Effective Date: 27th March 1997 Issued Date: 27th March 1997 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge Environment: Freshwater Stream/River Receiving Water: Leys Farm Ditch **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Manually corrected supplier location	A3NE (S)	13	1	450900 225495
2	**Discharge Consents** Operator: North Oxfordshire Consortium Ltd. Property Type: Undefined Or Other Location: Heyford Park, Upper Heyford, Near Bicester, Oxfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CATM.2848 Permit Version: 1 Effective Date: 27th March 1997 Issued Date: 27th March 1997 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge Environment: Freshwater Stream/River Receiving Water: Leys Farm Ditch **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Manually corrected supplier location	A3NE (S)	18	1	450905 225495
2	**Discharge Consents** Operator: North Oxfordshire Consortium Ltd. Property Type: Undefined Or Other Location: Heyford Park, Upper Heyford, Near Bicester, Oxfordshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CATM.2850 Permit Version: 1 Effective Date: 27th March 1997 Issued Date: 27th March 1997 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge Environment: Freshwater Stream/River Receiving Water: Leys Farm Ditch **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Manually corrected supplier location	A3NE (S)	21	1	450900 225505
3	**Local Authority Pollution Prevention and Controls** Name: Paragon Fleet Solutions Location: 125 Camp Road, Heyford Park, UPPER HEYFORD, Oxon, OX6 3HA Authority: Cherwell District Council, Environmental Health Department Permit Reference: CDC P 8/95 Dated: 21st November 1995 Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles **Status: Authorised** Positional Accuracy: Automatically positioned to the address	A8NW (SE)	0	2	451227 225979

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Local Authority Pollution Prevention and Controls** Name: Walon Ltd Location: 342 Heyford Park, Upper Heyford, Bicester, Oxfordshire, Ox6 5hb Authority: Cherwell District Council, Environmental Health Department Permit Reference: CDC10/95 Dated: 17th October 1995 Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles **Status: Application exempt from APC** Positional Accuracy: Manually positioned to the address or location	A7NE (S)	0	2	451035 225942
	Nearest Surface Water Feature	A7SW (S)	0	-	450547 225548
5	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Heyford Ley Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 26th April 1995 Incident Reference: W1950199 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A4NE (SE)	0	1	451800 225400
6	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UPPER HEYFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 22nd August 1994 Incident Reference: W1940464 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NE (E)	0	1	451800 226195
6	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: UPPER HEYFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 21st January 1991 Incident Reference: W1910034 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (E)	0	1	451800 226200
7	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Raf Upper Heyford Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 24th October 1991 Incident Reference: W1910467 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (SE)	0	1	451800 225800
8	**Prosecutions Relating to Authorised Processes** Location: Heyford Park, Bicester, Ox25 Prosecution Text: Failure to comply with packaging waste regulations Prosecution Act: Pro97 Hearing Date: 10th October 2007 Verdict: Guilty Fine: 16964 Costs: 1429 Positional Accuracy: Manually positioned to the address or location	A8SW (SE)	33	1	451307 225869

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	**Registered Radioactive Substances** Name: Oxford Bio-Innovation Ltd Location: 77, Heyford Park, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Authority: Environment Agency, Thames Region Permit Reference: CA4765 Dated: 1st November 2006 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under the Act of an open source which is also the subject of an authorisation **Status: Authorisation either revoked or cancelledCancelled** Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	0	1	451658 225928
9	**Registered Radioactive Substances** Name: Oxford Bio-Innovation Ltd Location: 77, Heyford Park, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Authority: Environment Agency, Thames Region Permit Reference: CA4773 Dated: 1st November 2006 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA **Status: Authorisation either revoked or cancelledCancelled** Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	0	1	451658 225928
10	**Substantiated Pollution Incident Register** Authority: Environment Agency - Thames Region, West Area Incident Date: 22nd May 2007 Incident Reference: 496617 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Sewage Materials: Final Effluent	A4NE (SE)	0	1	451720 225309
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H3)- Coarse textured or moderately shallow soils which readily transmit non-absorbed pollutants and liquid discharges but which have some ability to attenuate absorbed pollutants because of their large clay or organic matter contents Map Sheet: Sheet 30 Northern Cotswolds Scale: 1:100,000	A10NE (NW)	0	1	450301 226864
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H3)- Coarse textured or moderately shallow soils which readily transmit non-absorbed pollutants and liquid discharges but which have some ability to attenuate absorbed pollutants because of their large clay or organic matter contents Map Sheet: Sheet 30 Northern Cotswolds Scale: 1:100,000	A10SW (W)	0	1	449929 226496
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 30 Northern Cotswolds Scale: 1:100,000	A11SE (SW)	0	1	450957 226534
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Desination: Principal Aquifer	A10SW (W)	0	3	450000 226534
	Bedrock Aquifer Designations Aquifer Desination: Principal Aquifer	A11SE (SW)	0	3	450957 226534
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	A10NW (W)	0	3	449973 226619
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	(NE)	0	3	452384 227384
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
11	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	(SE)	0	1	451942 225682
12	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A7SW (S)	0	1	450547 225548
13	**Detailed River Network Lines** River Type: Secondary River River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A3NE (S)	22	1	450910 225480
	Detailed River Network Offline Drainage None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Cherwell District Council - Has supplied landfill data		0	2	450957 226534
	Local Authority Landfill Coverage Name: Oxfordshire County Council - Has supplied landfill data		0	8	450957 226534

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	**Control of Major Accident Hazards Sites (COMAH)** Name: Cosmic Fireworks Ltd Location: Raf Upper Heyford, Upper Heyford, Oxfordshire, OX6 3HD Reference: 1037428 Type: Upper Tier **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A8SW (S)	0	4	451248 225804
15	**Control of Major Accident Hazards Sites (COMAH)** Name: Cosmic Fireworks Ltd Location: Northern Bomb Site, RAF Upper Heyford, Camp Road, Upper Heyford, Oxfordshire, OX25 5HE Reference: Not Supplied Type: Lower Tier **Status: Active** Positional Accuracy: Manually positioned to the address or location	A8NW (SE)	0	4	451424 226144
16	**Control of Major Accident Hazards Sites (COMAH)** Name: Heyford Park Management Company Limited Location: Southern Bomb Store/Site, Heyford Park, Camp Road, Upper Heyford, Oxfordshire, Ox25 5hd Reference: Not Supplied Type: Lower Tier **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A8SW (SE)	3	4	451423 225774
16	**Control of Major Accident Hazards Sites (COMAH)** Name: Black Cat Fireworks Ltd Location: Heyford Park, Upper Heyford, Oxford, Oxfordshire, OX6 3HE Reference: Not Supplied Type: Lower Tier **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A8SW (SE)	5	4	451436 225770
17	**Explosive Sites** Name: Northern Bomb Store/Heyford Management Co Ltd Location: Camp Road, Upper Heyford, Cherwell, Oxon, Ox25 5he **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A16NE (NE)	0	4	451672 227326
18	**Explosive Sites** Name: Cosmic Fireworks Limited Location: Northern Bomb Site, RAF Upper Heyford, Camp Road, Upper Heyford, Oxfordshire, OX25 5HE **Status: Not Active** Positional Accuracy: Manually positioned to the address or location	A8NW (SE)	0	4	451425 226144

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Great Oolite	A11SE (SW)	0	3	450957 226534
	BGS 1:625,000 Solid Geology Description: Upper Lias	A10NE (W)	0	3	450141 226716
	BGS 1:625,000 Solid Geology Description: Inferior Oolite	A11NW (NW)	0	3	450756 226635
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (S)	0	5	450957 226000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (S)	0	5	451000 226000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10NW (W)	0	5	449973 226619
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10SW (W)	0	5	450000 226534
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11SE (SW)	0	5	450957 226534

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11SE (E)	0	5	451000 226534
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A15SE (N)	0	5	450957 227000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A15SE (N)	0	5	451000 227000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10NW (W)	6	5	449880 226644
19	**BGS Recorded Mineral Sites** Site Name: North Leys Farm Location: , Upper Heyford, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 57204 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Great Oolite Group Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A16SW (NE)	0	3	451373 227111
20	**BGS Recorded Mineral Sites** Site Name: Gorse Covert Location: , Upper Heyford, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 57208 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Great Oolite Group Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	0	3	451705 225928

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	**BGS Recorded Mineral Sites** Site Name: The Tower Location: Camp Road, Upper Heyford, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 57206 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Great Oolite Group Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A8SW (S)	24	3	451224 225780
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NW (W)	0	3	449973 226619
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A7NE (S)	0	3	450957 226075

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 1 and 3% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A7NE (S)	0	3	450957 226075
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	0	3	450000 226534
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A11SE (SW)	0	3	450957 226534

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	**Contemporary Trade Directory Entries** Name: O C B Location: 88, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Car Breakdown & Recovery Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	0	-	451582 225992
22	**Contemporary Trade Directory Entries** Name: Protyre Location: 86, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Tyre Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	0	-	451582 225992
22	**Contemporary Trade Directory Entries** Name: Ranik Ltd Location: 88, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Plastic Products - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	0	-	451582 225992
22	**Contemporary Trade Directory Entries** Name: The Poffins Co Location: 77 Heyford Pk,Camp Rd, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Pet Cemeteries & Crematoria **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A8NE (SE)	0	-	451582 225992
23	**Contemporary Trade Directory Entries** Name: Microbial Solutions Ltd Location: Bicester, Oxfordshire, Ox25 5hd Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A8NW (SE)	0	-	451458 225979
24	**Contemporary Trade Directory Entries** Name: Supply Engineering Ltd Location: 101, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HA Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (SE)	0	-	451361 225817
24	**Contemporary Trade Directory Entries** Name: Fs Engineering Location: 101, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HA Classification: Engineering Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SW (SE)	0	-	451361 225817
24	**Contemporary Trade Directory Entries** Name: Storm Graphics Location: Heyford Pk,Camp Rd, Upper Heyford, Bicester, Oxfordshire, OX25 5HA Classification: Screen Process Printers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A8SW (SE)	6	-	451377 225777
25	**Contemporary Trade Directory Entries** Name: Kingsground Narrow Boats Location: 103, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HA Classification: Boatbuilders & Repairers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SW (SE)	0	-	451295 225815
26	**Contemporary Trade Directory Entries** Name: Contact Silica Location: 77, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Electronic Component Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	0	-	451659 225928

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	**Contemporary Trade Directory Entries** Name: Telco Electronics Ltd Location: 77, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Electronic Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	0	-	451659 225928
26	**Contemporary Trade Directory Entries** Name: Advanced Paypoint Solutions Location: 77, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Cash Registers & Check-Out Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	0	-	451659 225928
26	**Contemporary Trade Directory Entries** Name: Raman Technical Research Ltd Location: Heyford Park,Camp Rd, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Medical Equipment Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A8NE (SE)	0	-	451640 225948
26	**Contemporary Trade Directory Entries** Name: Interactive Office Systems Ltd Location: 77, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Photocopiers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	0	-	451659 225928
26	**Contemporary Trade Directory Entries** Name: Steelweld Uk Location: 77, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Machine Tools - Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	0	-	451659 225928
26	**Contemporary Trade Directory Entries** Name: Everest Biotech Ltd Location: 77, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Scientific Apparatus & Instruments - Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	0	-	451659 225928
27	**Contemporary Trade Directory Entries** Name: Laundryquip Location: Heyford Pk, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Laundry Equipment - Sales & Service **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A8NE (SE)	0	-	451530 225940
27	**Contemporary Trade Directory Entries** Name: Sensor Technology Ltd Location: 68, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Electronic Equipment - Manufacturers & Assemblers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	0	-	451519 225917
28	**Contemporary Trade Directory Entries** Name: G-Force Ltd Location: 221, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HQ Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A16NW (NE)	0	-	451372 227404
29	**Contemporary Trade Directory Entries** Name: Pro-Auto Location: 260 Heyford Pk,Camp Rd, Upper Heyford, Bicester, Oxfordshire, OX25 5HA Classification: Garage Services **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A8SW (SE)	6	-	451461 225766
30	**Contemporary Trade Directory Entries** Name: A Buxton Location: 32 Heyford Pk,Camp Rd, Upper Heyford, Bicester, Oxfordshire, OX25 5HD Classification: Plant & Machinery Repairs **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A8SE (SE)	6	-	451578 225751

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	**Contemporary Trade Directory Entries** Name: Integration Technology Ltd Location: 115-119, Heyford Park, Camp Road, Upper Heyford, BICESTER, Oxfordshire, OX25 5HA Classification: Printing Equipment Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NW (SE)	29	-	451330 225905
31	**Contemporary Trade Directory Entries** Name: Abbess Dryers Ltd Location: 115-119, Heyford Park, Camp Road, Upper Heyford, Bicester, Oxfordshire, OX25 5HA Classification: Printing Equipment Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (SE)	29	-	451330 225905

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	**Nitrate Vulnerable Zones** Name: Not Supplied Description: NVZ Area Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A11SE (SW)	0	7	450957 226534

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Cherwell District Council - Environmental Health Department	February 2013	Annual Rolling Update
Discharge Consents		
Environment Agency - Anglian Region	February 2014	Quarterly
Environment Agency - Thames Region	February 2014	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Thames Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - Thames Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Environment Agency - Thames Region	February 2014	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Cherwell District Council - Environmental Health Department	March 2013	Annual Rolling Update
Local Authority Pollution Prevention and Controls		
Cherwell District Council - Environmental Health Department	March 2013	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Cherwell District Council - Environmental Health Department	March 2013	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters		
Environment Agency - Anglian Region	September 1999	Not Applicable
Environment Agency - Thames Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Thames Region	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - Thames Region	March 2013	As notified
Registered Radioactive Substances		
Environment Agency - Thames Region	February 2014	Quarterly
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency - Thames Region - West Area	February 2014	Quarterly
Water Abstractions		
Environment Agency - Anglian Region	December 2014	Quarterly
Environment Agency - Thames Region	December 2014	Quarterly
Water Industry Act Referrals		
Environment Agency - Thames Region	February 2014	Quarterly
Groundwater Vulnerability		
Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations		
British Geological Survey - National Geoscience Information Service	October 2012	Annually
Superficial Aquifer Designations		
British Geological Survey - National Geoscience Information Service	October 2012	Annually
Source Protection Zones		
Environment Agency - Head Office	December 2014	Quarterly

Agency & Hydrological	Version	Update Cycle
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	February 2014	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	February 2014	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	February 2014	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	February 2014	Quarterly
Flood Defences		
Environment Agency - Head Office	February 2014	Quarterly
Detailed River Network Lines		
Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage		
Environment Agency - Head Office	March 2012	Annually
Waste	**Version**	**Update Cycle**
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - South East Region - Kent & South London Area	February 2014	Quarterly
Environment Agency - South East Region - North East Thames Area	February 2014	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	February 2014	Quarterly
Environment Agency - South East Region - West Thames Area	February 2014	Quarterly
Environment Agency - Thames Region - West Area	February 2014	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Thames Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Kent & South London Area	February 2014	Quarterly
Environment Agency - South East Region - North East Thames Area	February 2014	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	February 2014	Quarterly
Environment Agency - South East Region - West Thames Area	February 2014	Quarterly
Environment Agency - Thames Region - West Area	February 2014	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - Thames Region - West Area	February 2014	Quarterly
Local Authority Landfill Coverage		
Cherwell District Council - Environmental Health Department	May 2000	Not Applicable
Oxfordshire County Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Cherwell District Council - Environmental Health Department	May 2000	Not Applicable
Oxfordshire County Council	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency - Thames Region - West Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Thames Region - West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - Thames Region - West Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2014	Bi-Annually
Explosive Sites Health and Safety Executive	November 2013	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Cherwell District Council Oxfordshire County Council	March 2014 November 2012	Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Cherwell District Council Oxfordshire County Council	March 2014 November 2012	Annual Rolling Update Annual Rolling Update
Geological	**Version**	**Update Cycle**
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2014	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	December 2013	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	**Version**	**Update Cycle**
Contemporary Trade Directory Entries Thomson Directories	February 2014	Quarterly
Fuel Station Entries Catalist Ltd - Experian	March 2014	Quarterly

Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt Cherwell District Council	February 2014	As notified
Areas of Unadopted Green Belt Cherwell District Council	February 2014	As notified
Areas of Outstanding Natural Beauty Natural England	January 2014	Bi-Annually
Environmentally Sensitive Areas Natural England	July 2013	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	July 2013	Bi-Annually
Marine Nature Reserves Natural England	July 2013	Bi-Annually
National Nature Reserves Natural England	January 2014	Bi-Annually
National Parks Natural England	January 2014	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2013	Annually
Ramsar Sites Natural England	July 2013	Bi-Annually
Sites of Special Scientific Interest Natural England	July 2013	Bi-Annually
Special Areas of Conservation Natural England	July 2013	Bi-Annually
Special Protection Areas Natural England	July 2013	Bi-Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	**Cherwell District Council - Environmental Health Department** Bodicote House, Bodicote, Banbury, Oxfordshire, OX15 4AA	Telephone: 01295 252535 extn 4511 Fax: 01295 270028 Website: www.cherwell-dc.gov.uk
3	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
4	**Health and Safety Executive** 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
5	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk
6	**Natural England** Northminster House, Northminster Road, Peterborough, Cambridgeshire, PE1 1UA	Telephone: 0845 600 3078 Fax: 01733 455103 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
7	**Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)** Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
8	**Oxfordshire County Council** County Hall, New Road, Oxford, Oxfordshire, OX1 1ND	Telephone: 01865 792422 Fax: 01865 810106 Email: environmental.services@oxfordshire.gov.uk Website: www.oxfordshire.gov.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / SEPA have a charging policy in place for enquiries.

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Pylon
Electricity Transmission Line
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

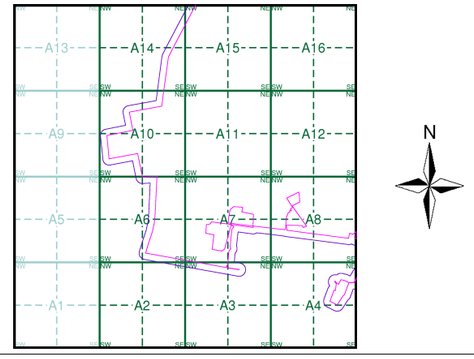
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Mud
Sand
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

Waterman

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Oxfordshire	1:10,560	1884 - 1885	2
Oxfordshire	1:10,560	1900	3
Oxfordshire	1:10,560	1923	4
Historical Aerial Photography	1:10,560	1947 - 1949	5
Ordnance Survey Plan	1:10,000	1955	6
Ordnance Survey Plan	1:10,000	1966	7
Ordnance Survey Plan	1:10,000	1979	8
Ordnance Survey Plan	1:10,000	1980 - 1982	9
Ordnance Survey Plan	1:10,000	1993	10
10K Raster Mapping	1:10,000	2006	11
VectorMap Local	1:10,000	2014	12

Historical Map - Slice A



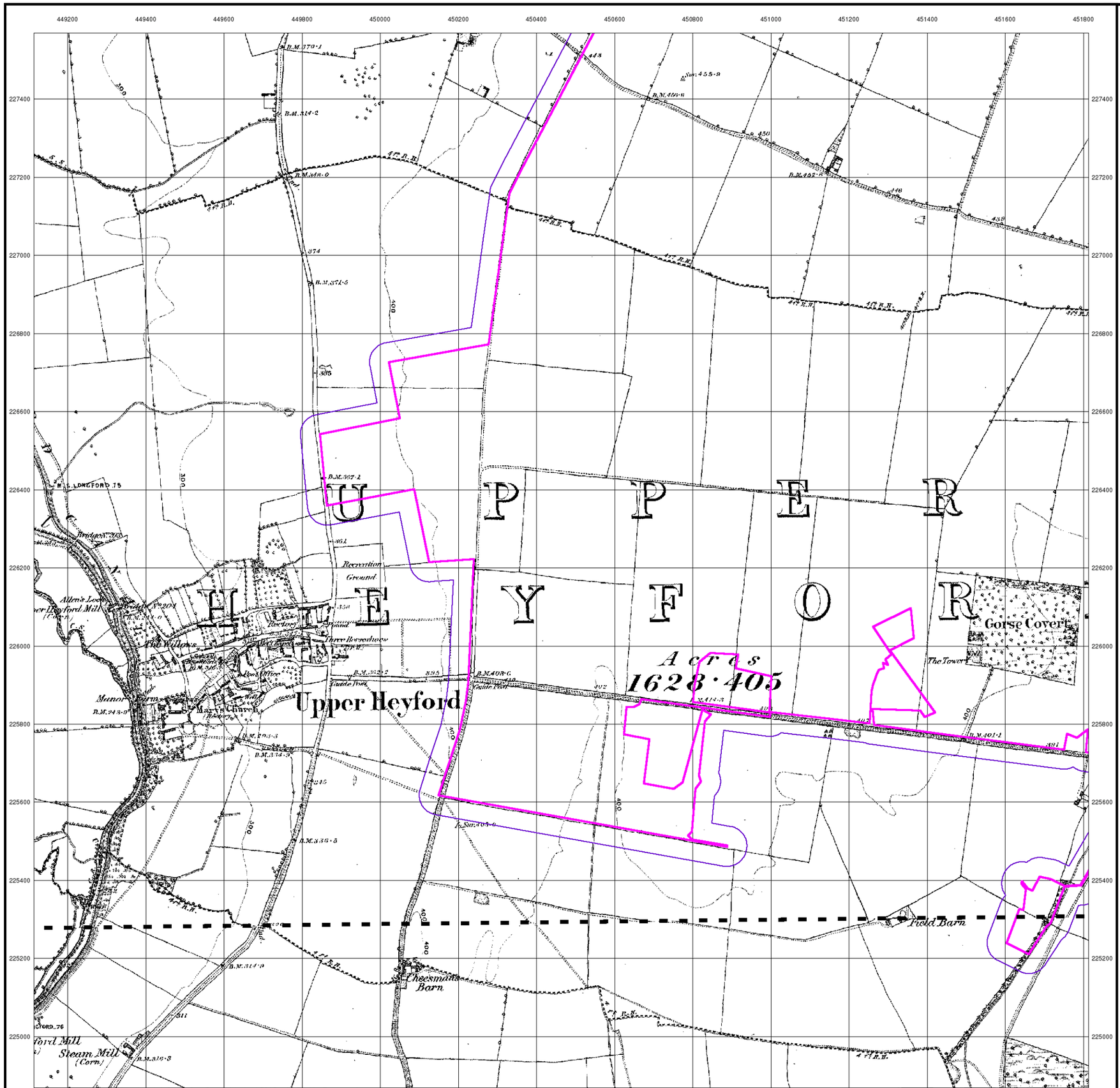
Order Details

Order Number: 56261419_1_1
Customer Ref: E10658 - 109
National Grid Reference: 450960, 226530
Slice: A
Site Area (Ha): 460.65
Search Buffer (m): 50

Site Details

Heyford Park, Oxfordshire

Landmark Information Group
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Oxfordshire

Published 1884 - 1885

Source map scale - 1:10,560

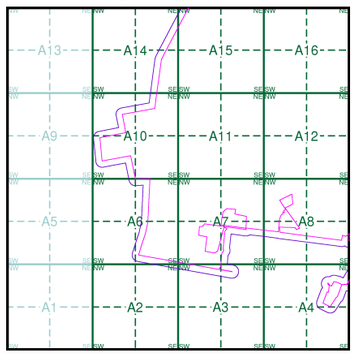
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

01600
1885
1:10,560

02200
1884
1:10,560

Historical Map - Slice A



Order Details

Order Number:	56261419_1_1
Customer Ref:	E10658 - 109
National Grid Reference:	450960, 226530
Slice:	A
Site Area (Ha):	460.65
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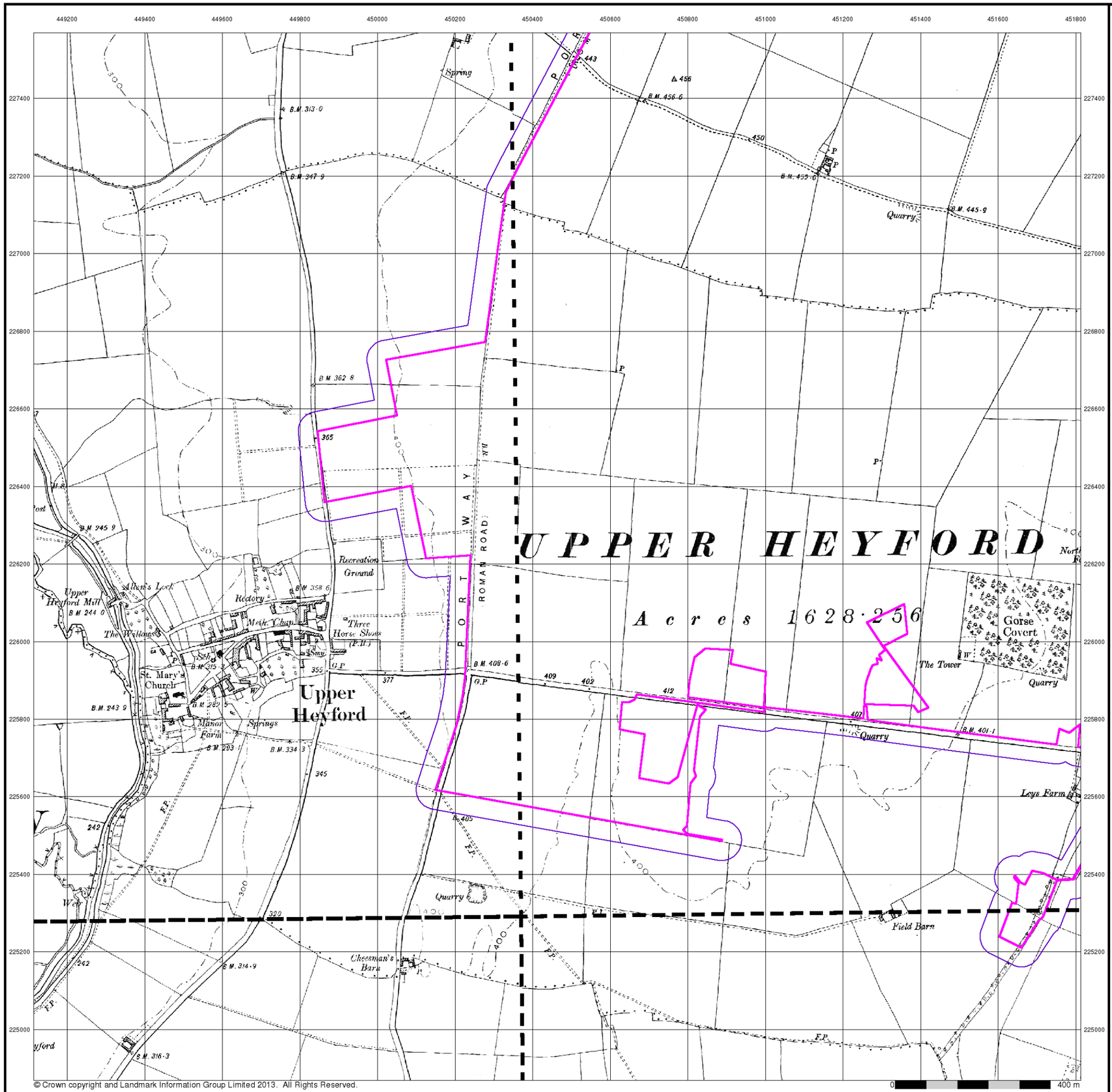

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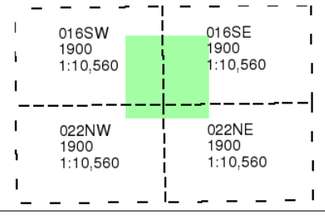
Oxfordshire

Published 1900

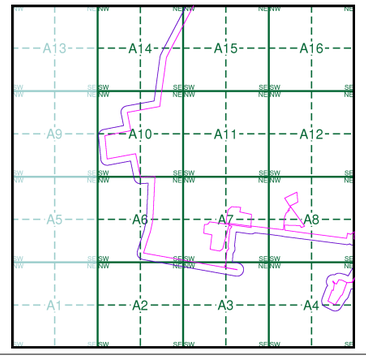
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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National Grid Reference:	450960, 226530
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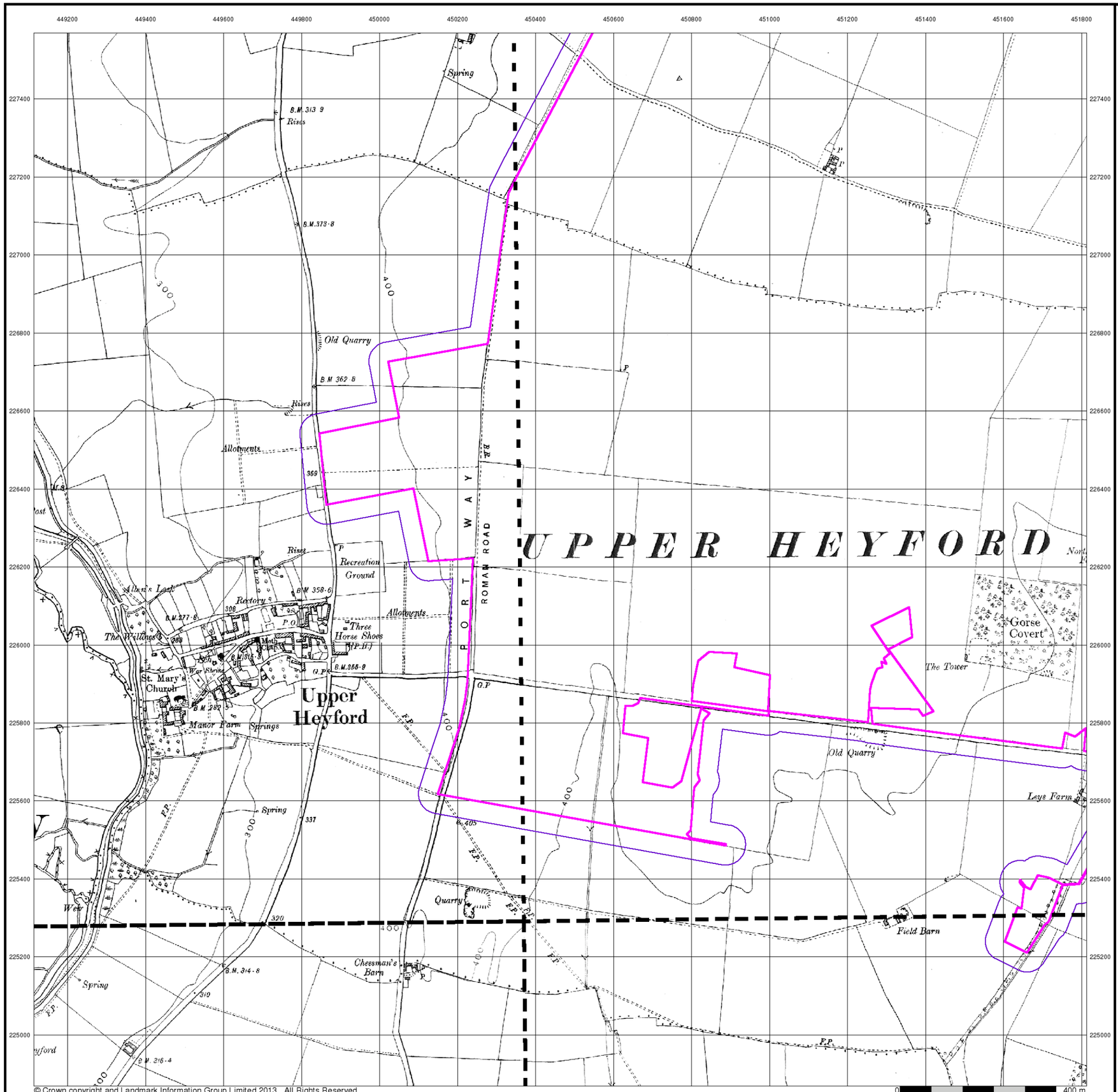


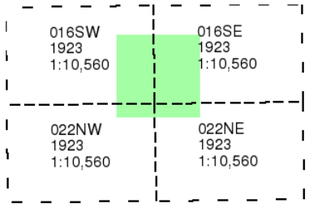
Oxfordshire

Published 1923

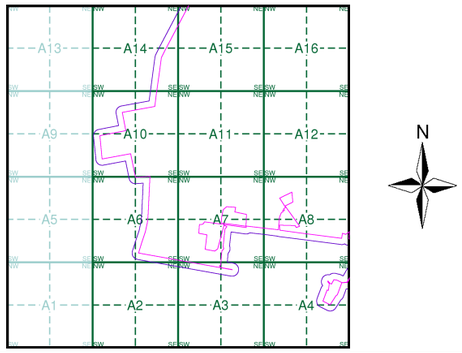
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



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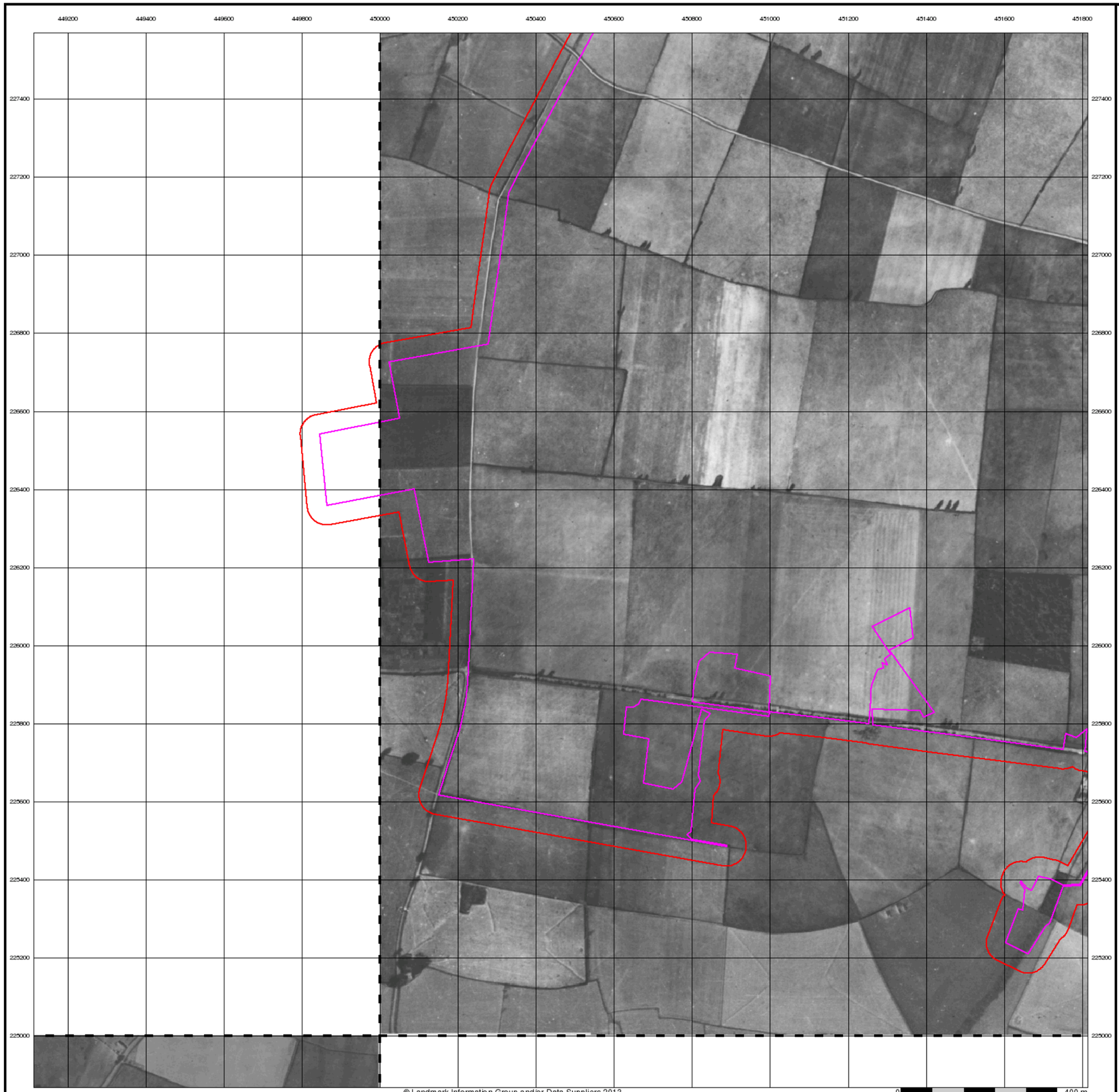


0 400 m

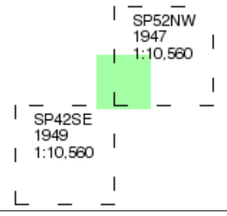
Historical Aerial Photography

Published 1947 - 1949

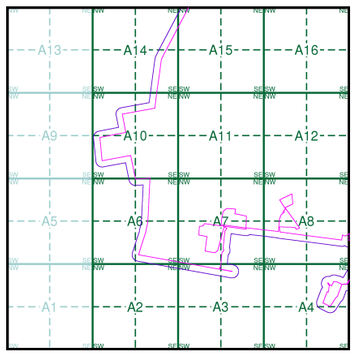
Source map scale - 1:10,560

The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

Order Number:	56261419_1_1
Customer Ref:	E10658 - 109
National Grid Reference:	450960, 226530
Slice:	A
Site Area (Ha):	460.65
Search Buffer (m):	50

Site Details

Heyford Park, Oxfordshire

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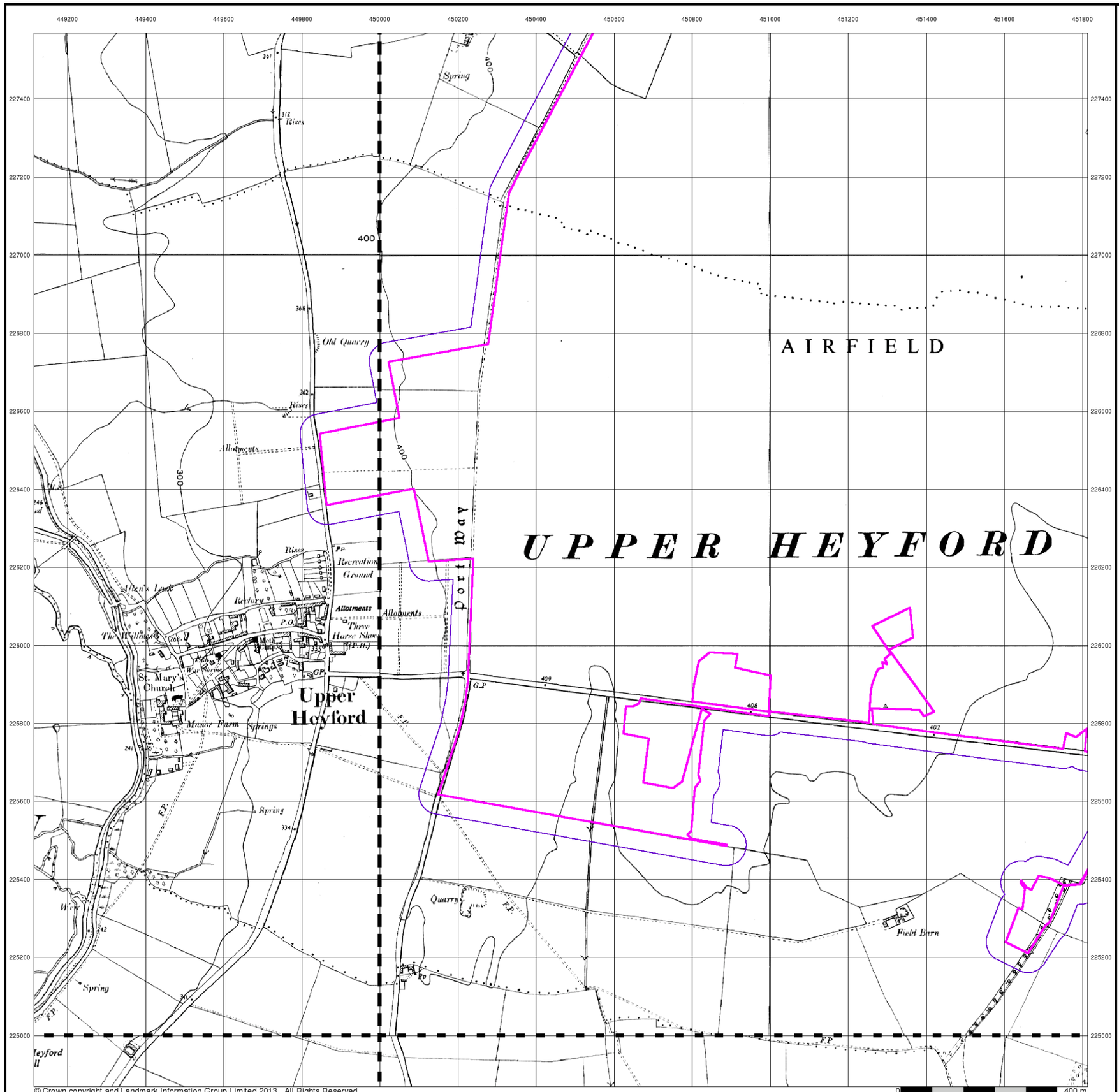


Waterman

Ordnance Survey Plan

Published 1955

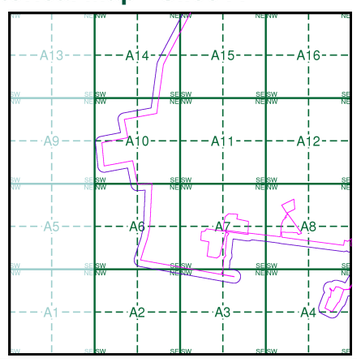
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SP42NE 1955 1:10,560	SP52NW 1955 1:10,560
SP42SE 1955 1:10,560	SP52SW 1955 1:10,560

Historical Map - Slice A



Order Details

Order Number:	56261419_1_1
Customer Ref:	E10658 - 109
National Grid Reference:	450960, 226530
Slice:	A
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Search Buffer (m):	50

Site Details

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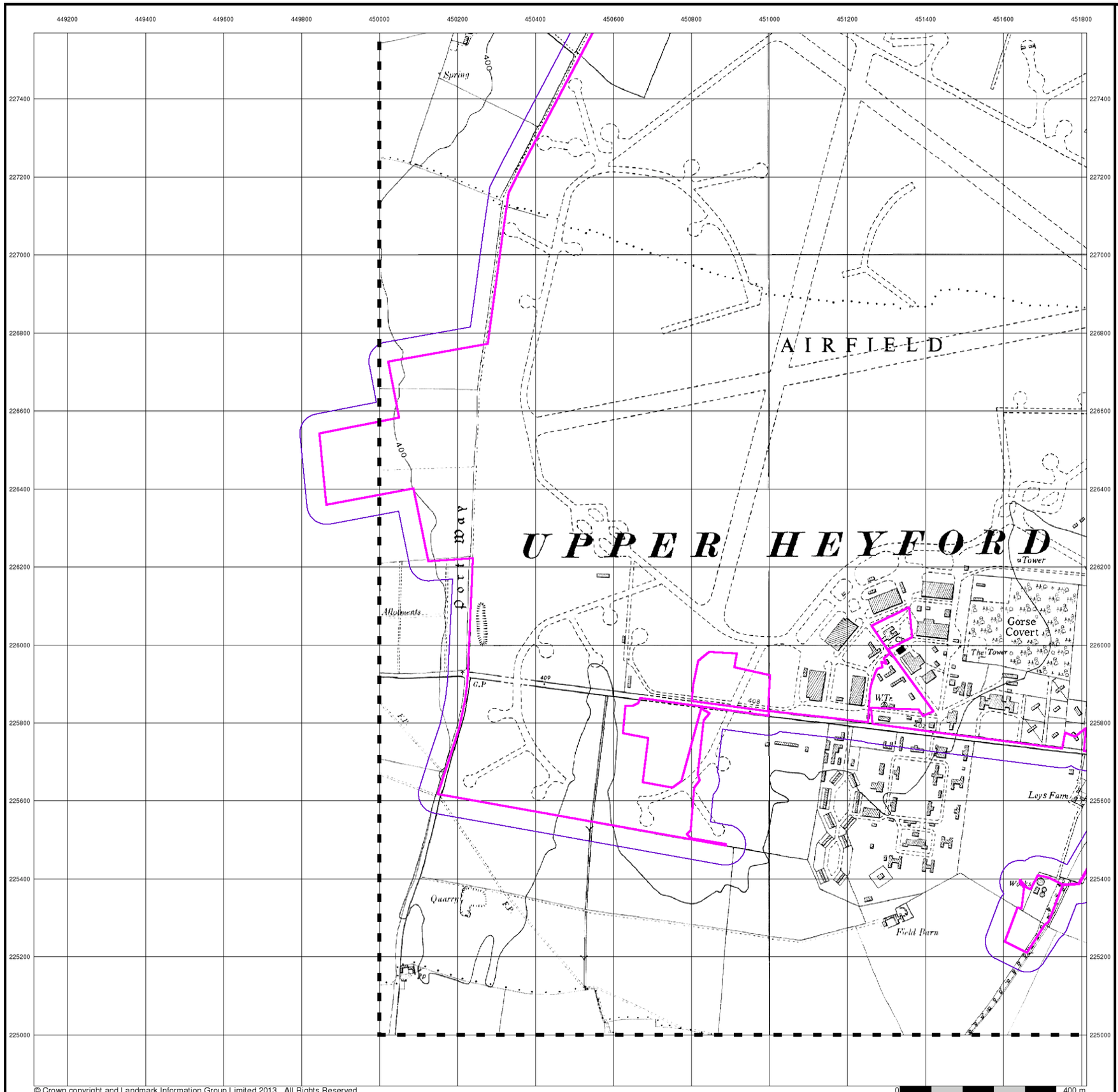

Waterman

Ordnance Survey Plan

Published 1966

Source map scale - 1:10,000

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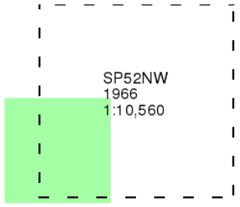
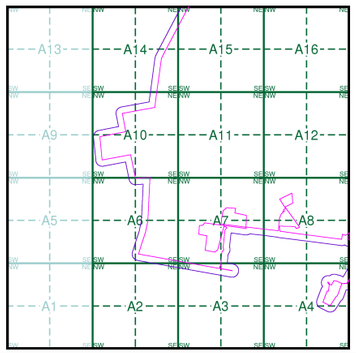
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	56261419_1_1
Customer Ref:	E10658 - 109
National Grid Reference:	450960, 226530
Slice:	A
Site Area (Ha):	460.65
Search Buffer (m):	50

Site Details

Heyford Park, Oxfordshire

Landmark Information Group

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Waterman

Ordnance Survey Plan

Published 1979

Source map scale - 1:10,000

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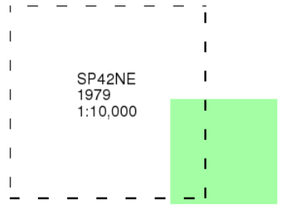
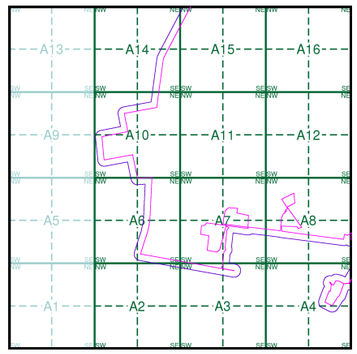
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	56261419_1_1
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National Grid Reference:	450960, 226530
Slice:	A
Site Area (Ha):	460.65
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Site Details

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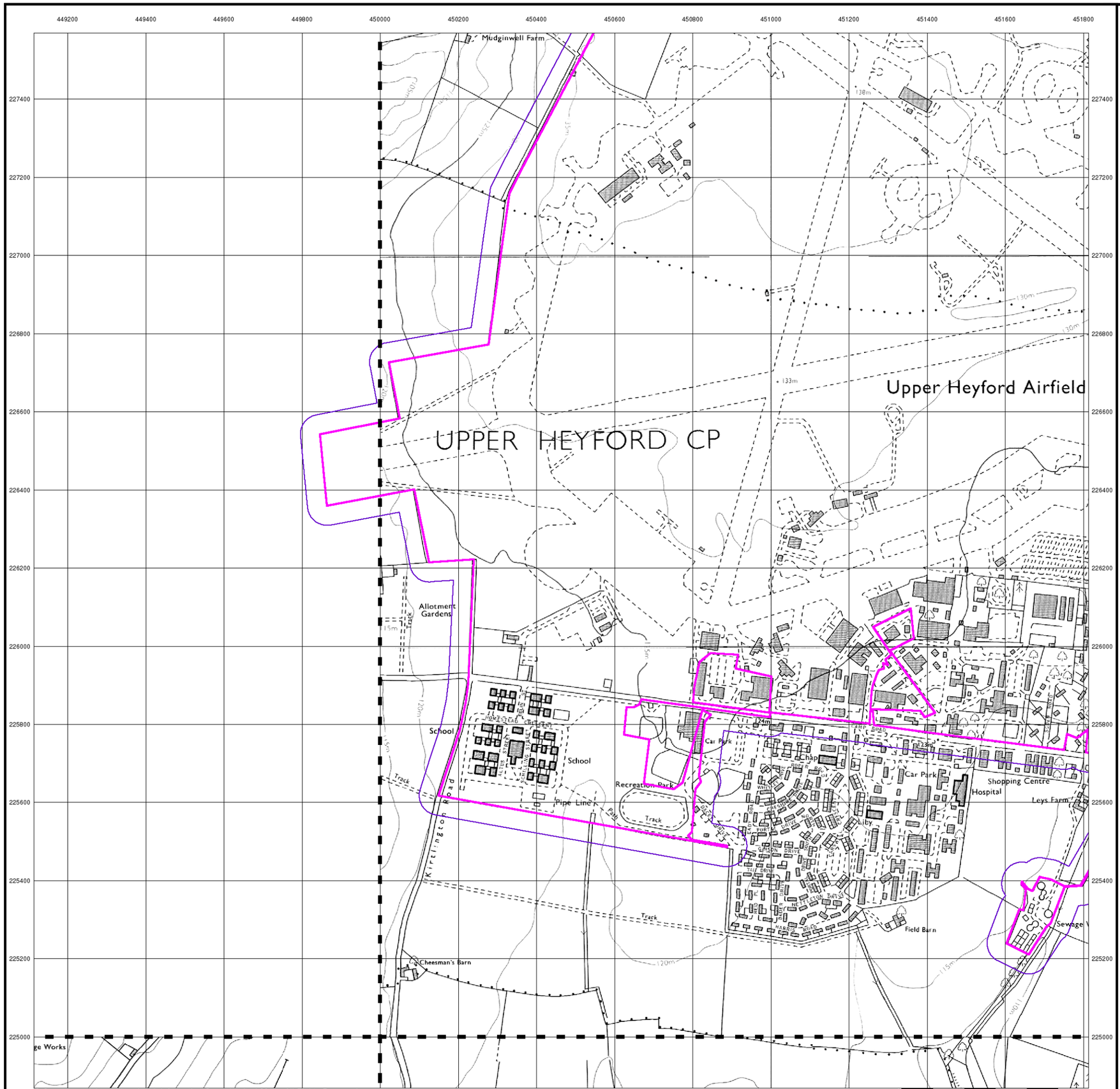

Waterman

Ordnance Survey Plan

Published 1980 - 1982

Source map scale - 1:10,000

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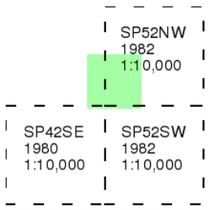
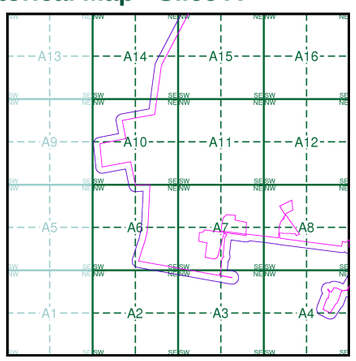


Historical Map - Slice A



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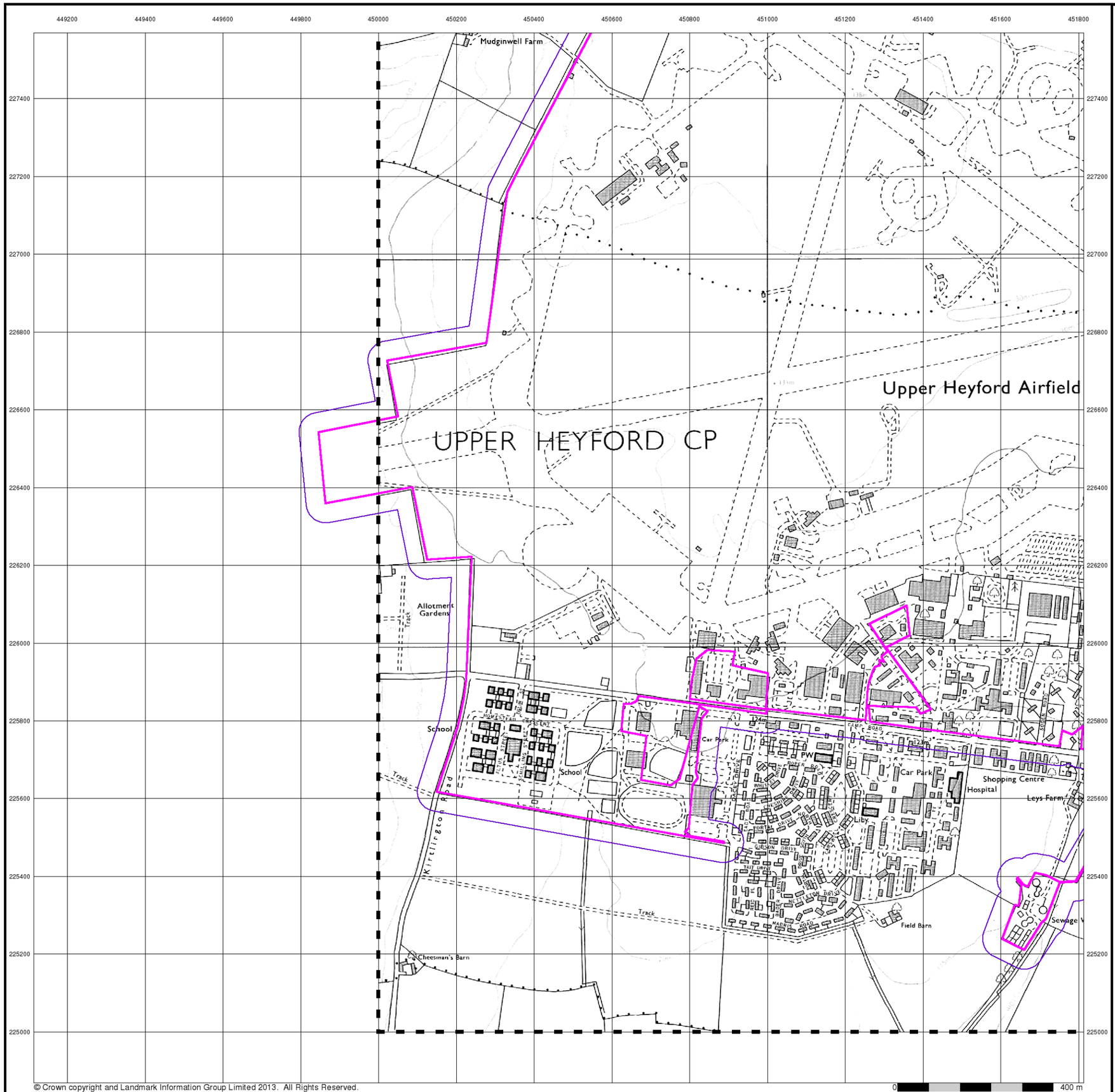

Waterman

Ordnance Survey Plan

Published 1993

Source map scale - 1:10,000

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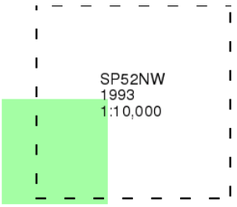
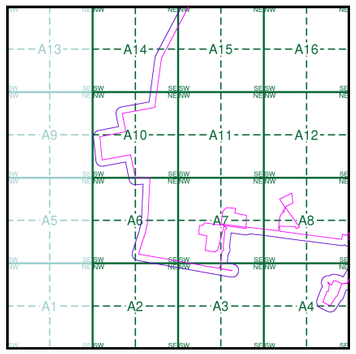
Map Name(s) and Date(s)



Historical Map - Slice A



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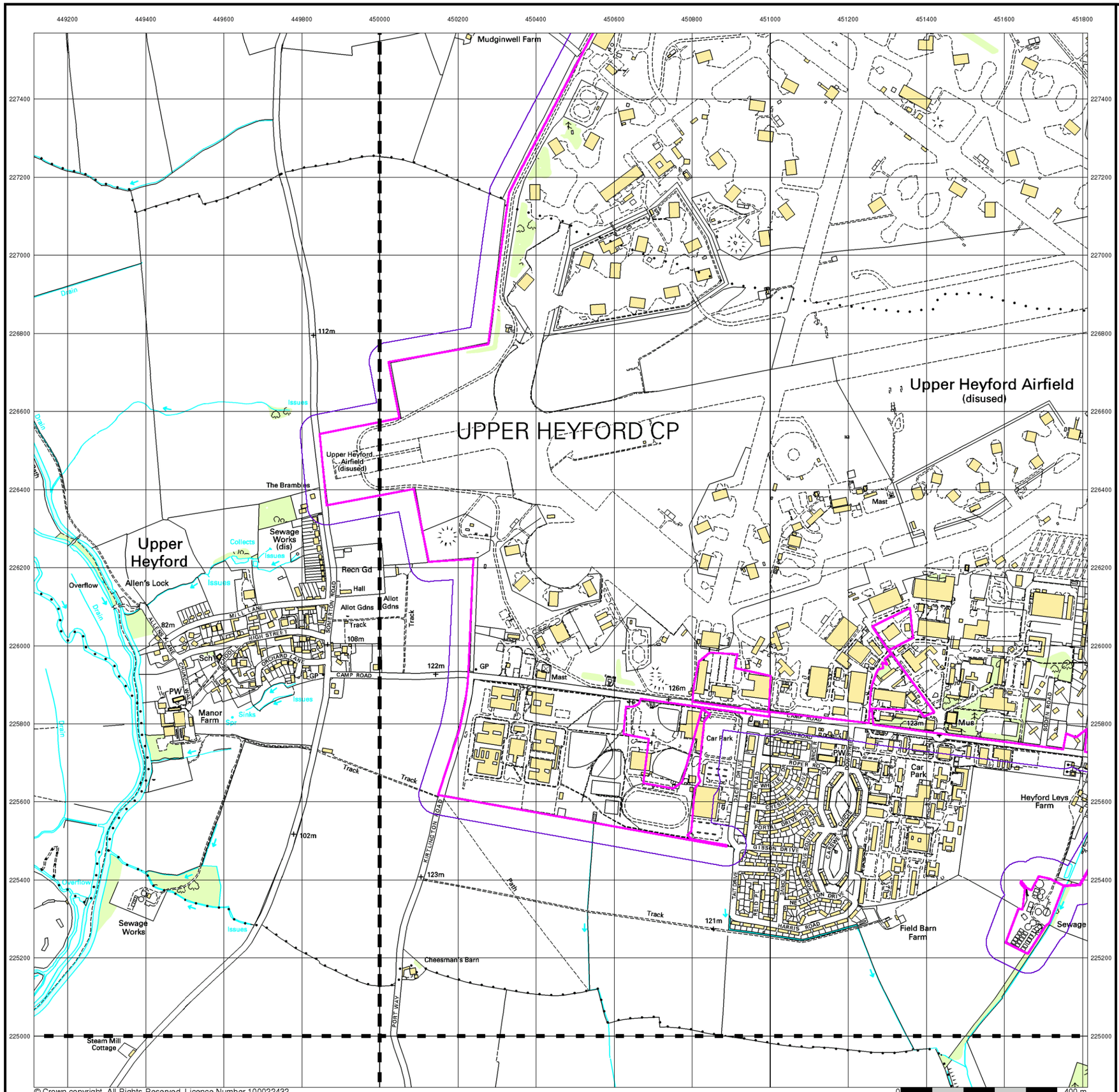


Waterman

10k Raster Mapping

Published 2006

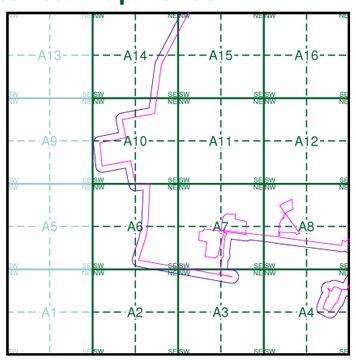
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SP42NE 2006 1:10,000	SP52NW 2006 1:10,000
SP42SE 2006 1:10,000	SP52SW 2006 1:10,000

Historical Map - Slice A



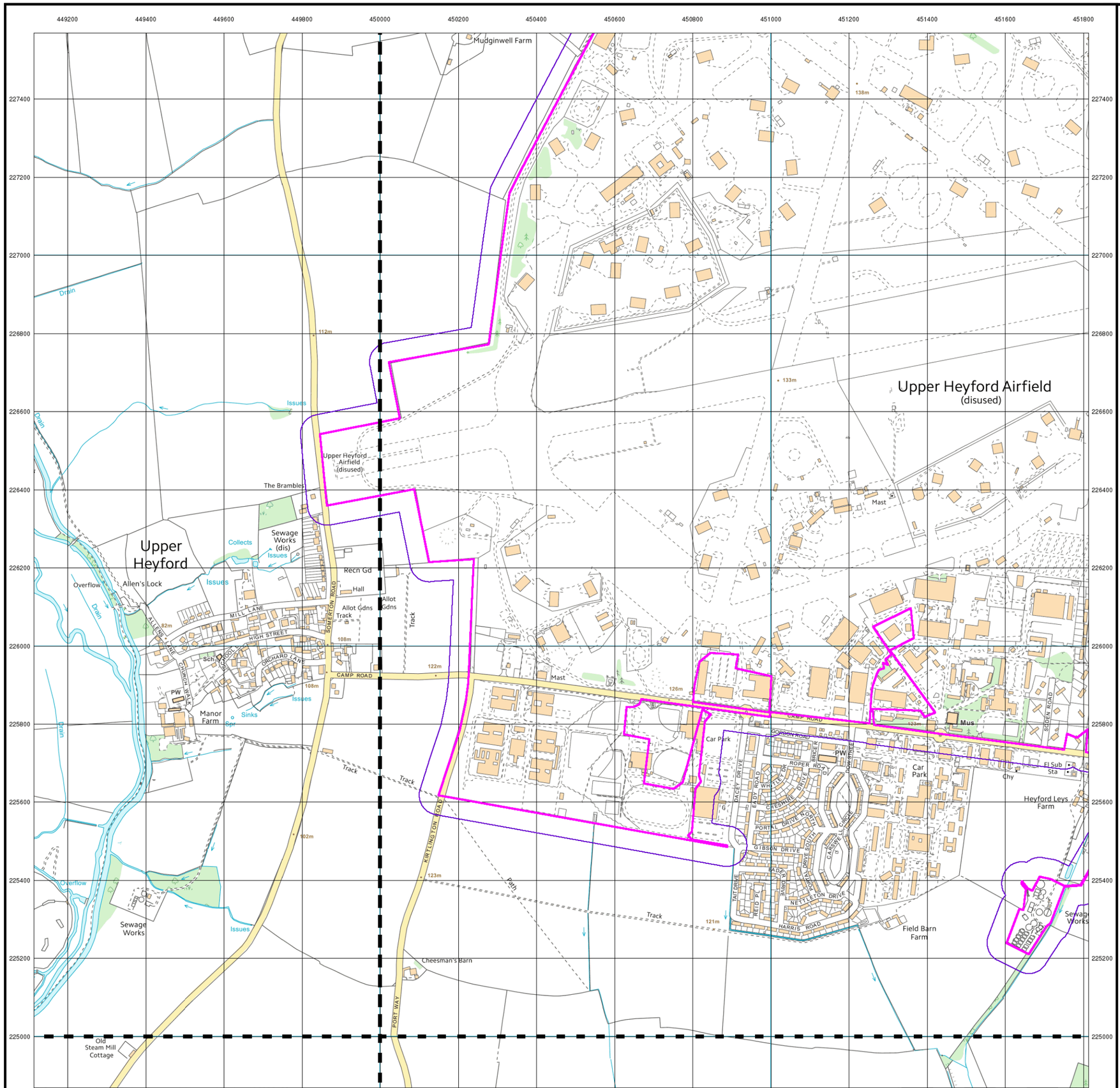
Order Details

Order Number:	56261419_1_1
Customer Ref:	E10658 - 109
National Grid Reference:	450960, 226530
Slice:	A
Site Area (Ha):	460.65
Search Buffer (m):	50

Site Details

Heyford Park, Oxfordshire

Landmark Information Group
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



VectorMap Local

Published 2014

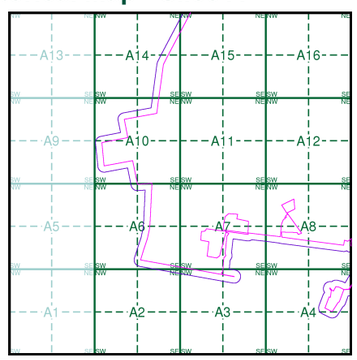
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SP42NE 2014 Variable	SP52NW 2014 Variable
SP42SE 2014 Variable	SP52SW 2014 Variable

Historical Map - Slice A



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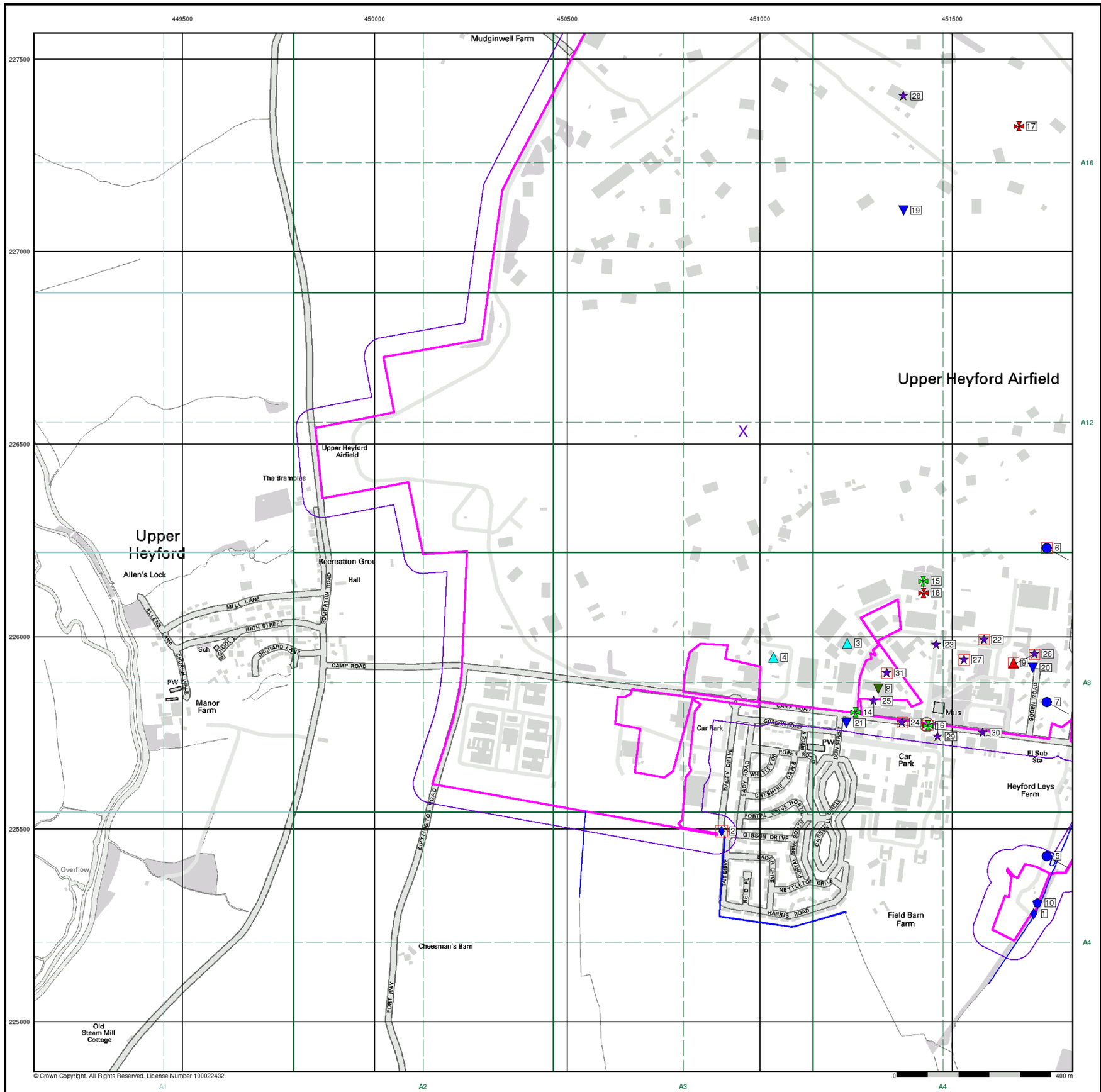


General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

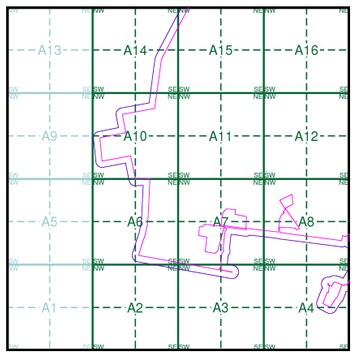
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Slice A



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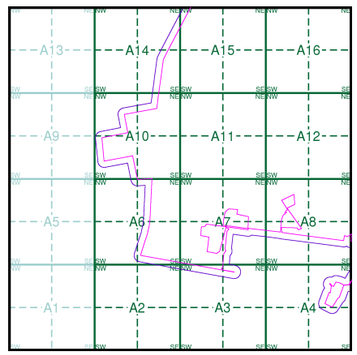
General

- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



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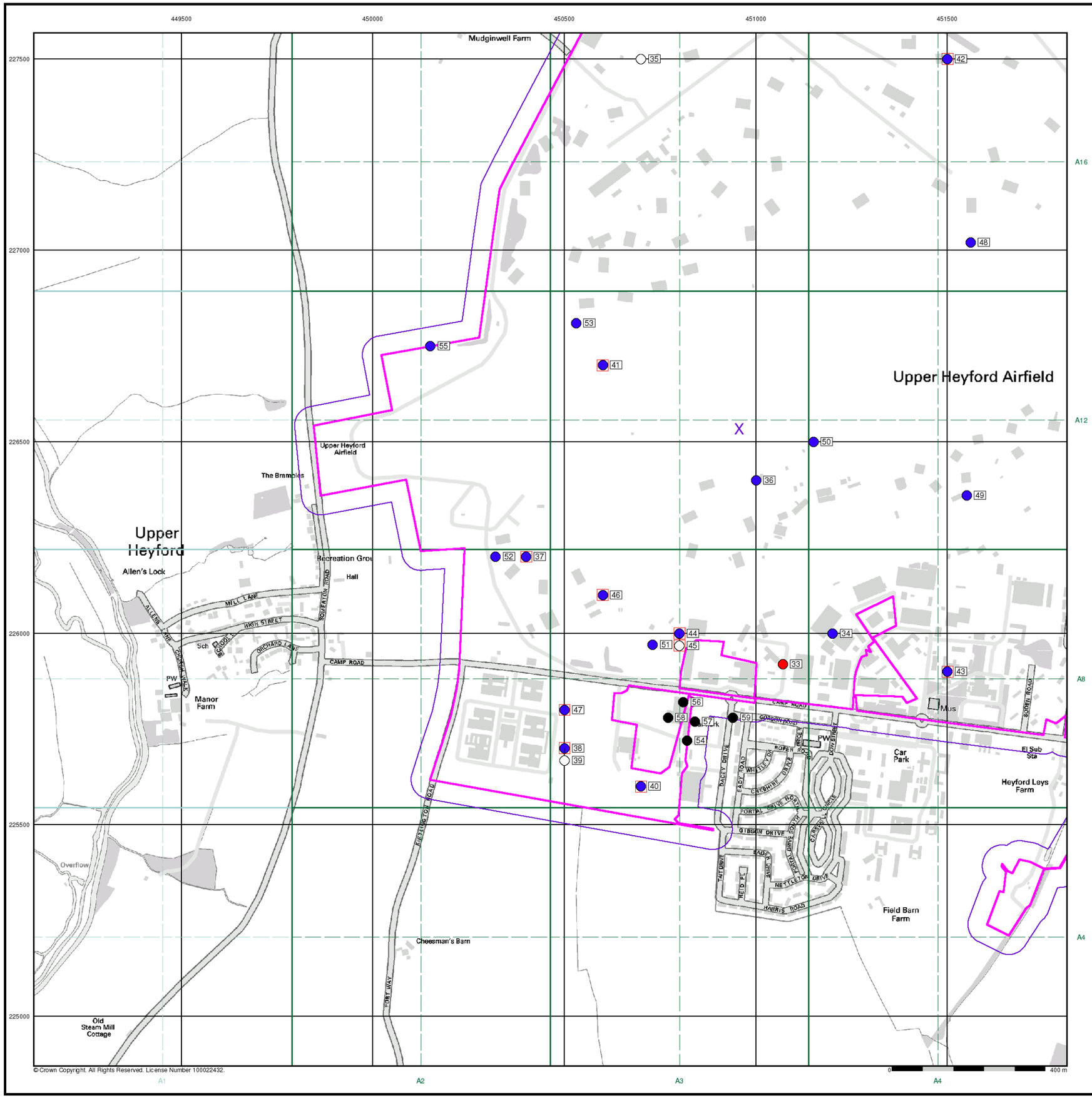


General

- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Map ID
- Several of Type at Location

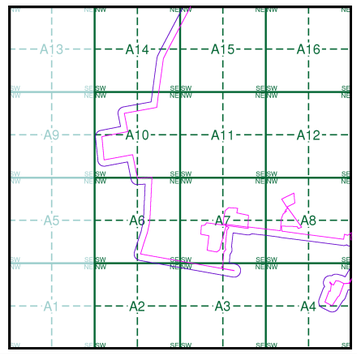
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



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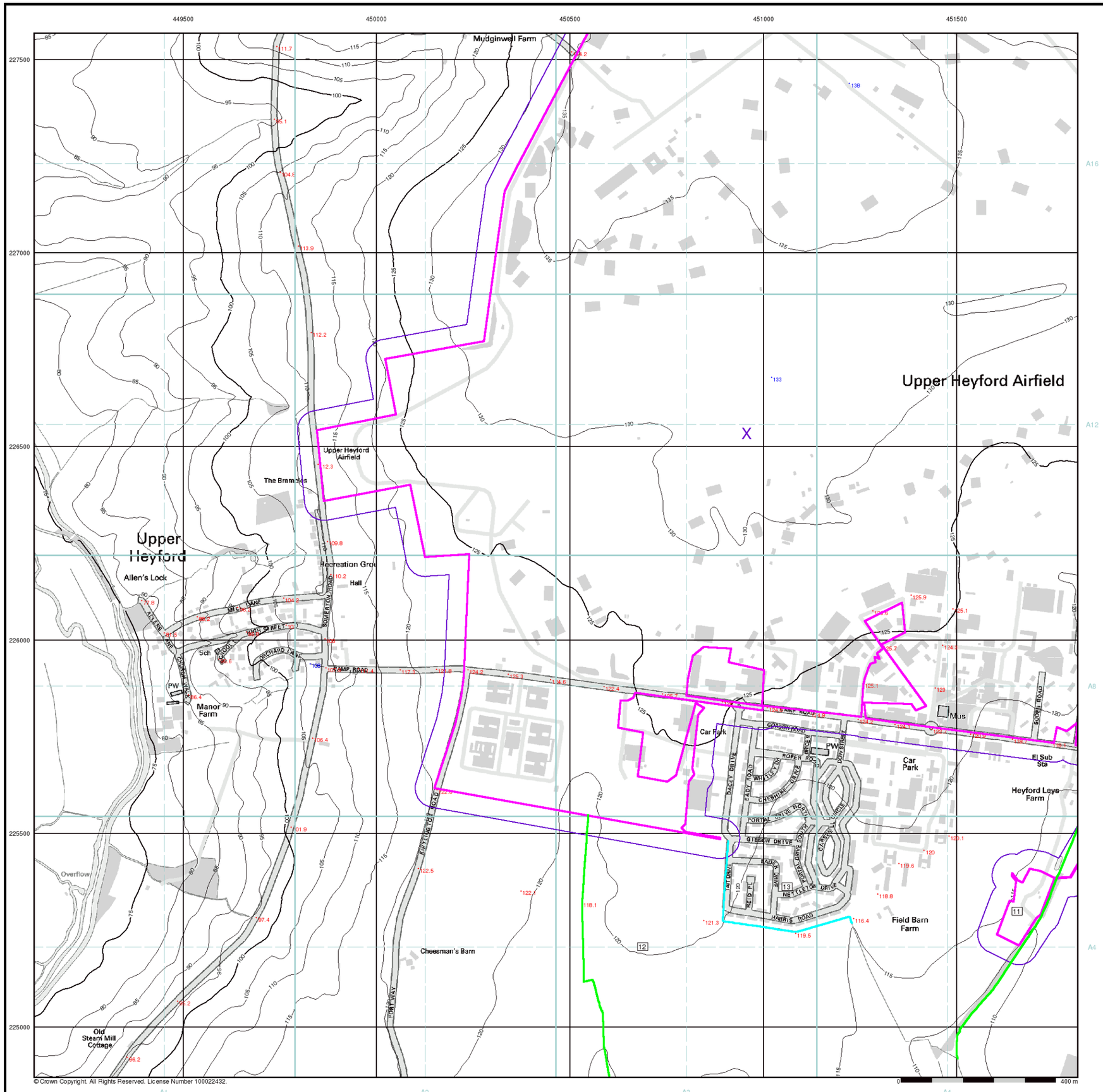


Waterman

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID

EA Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Offline Drainage Feature
- Extended Culvert (greater than 50m
- Underground River (inferred)
- Underground River (local knowledge
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature

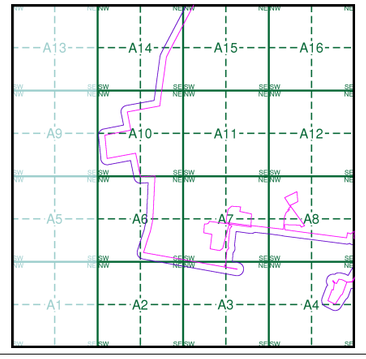
Contours (height in metres)

Standard Contour 105 — Index Contour 100 95

167.3 Spot Height

45.8 Air Height

EA Detailed River Network Map - Slice A



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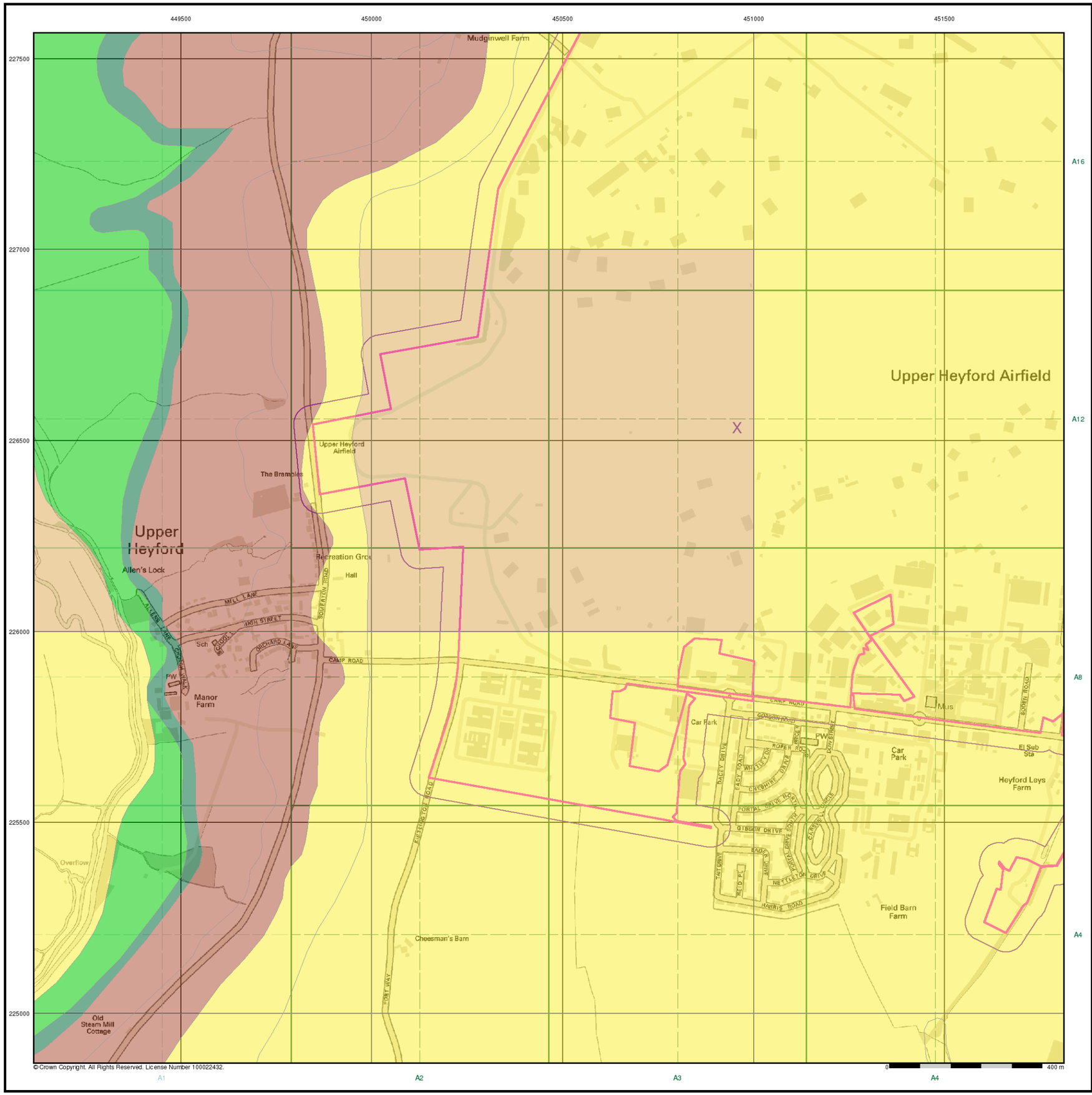


General

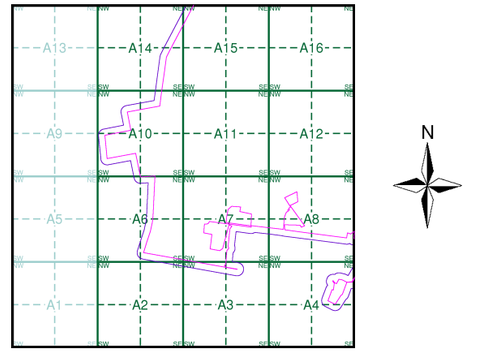
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



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General

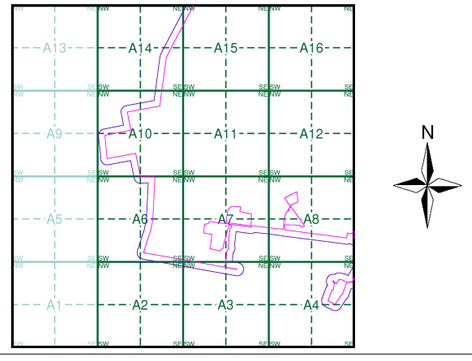
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

- < 1.8
- 1.8 - 2.2
- 2.2 - 3.0
- > 3.0

Estimated Soil Chemistry Cadmium - Slice A



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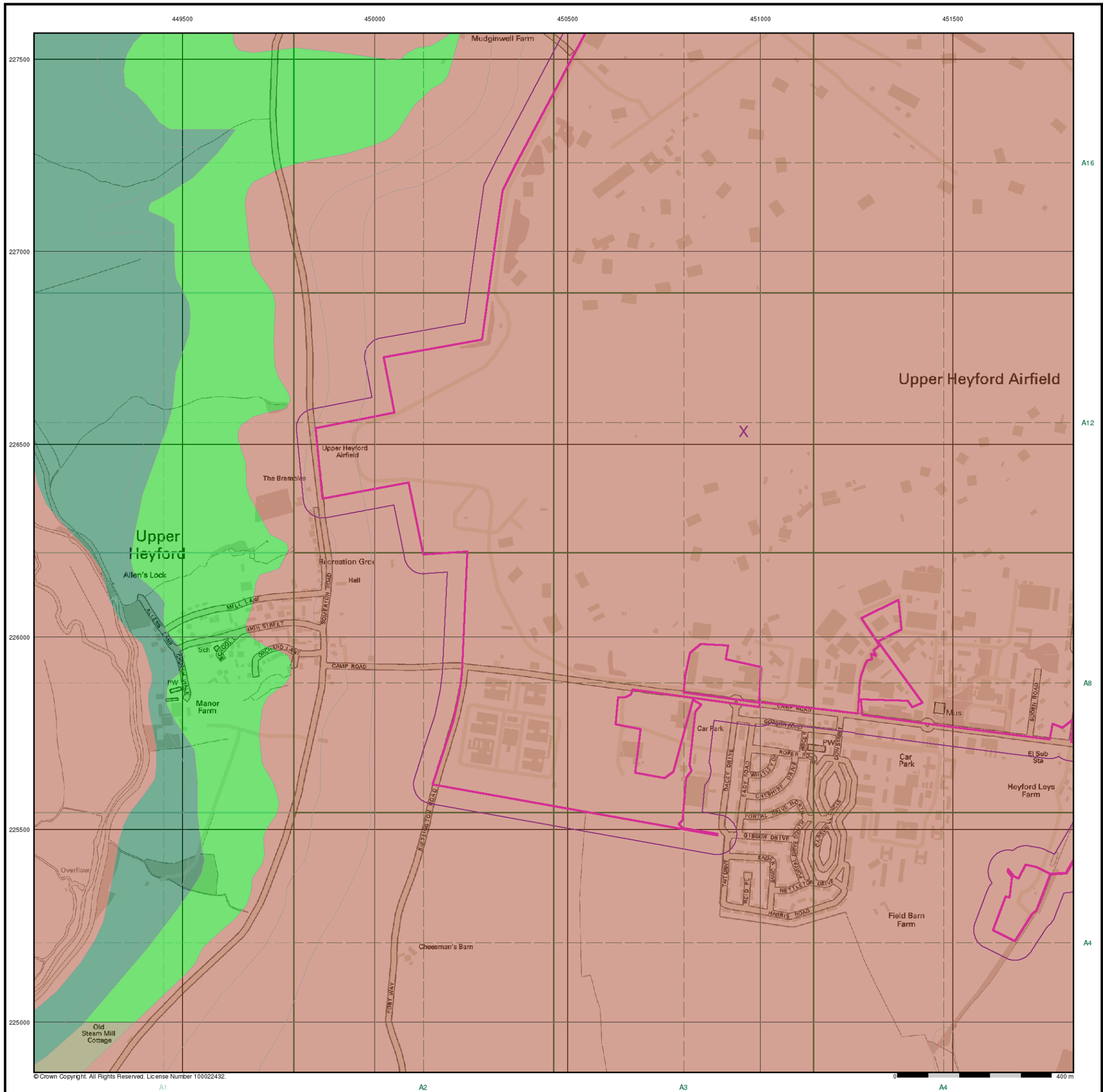


General

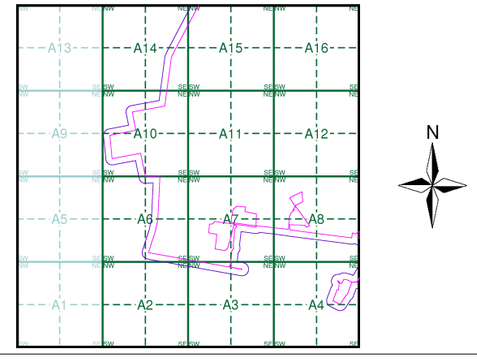
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



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General

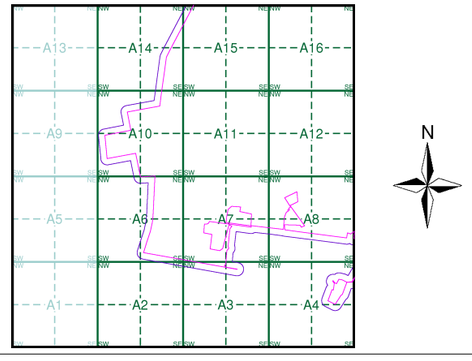
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- < 150
- 150 - 300
- 300 - 600
- 600 - 900
- > 900

Estimated Soil Chemistry Lead - Slice A



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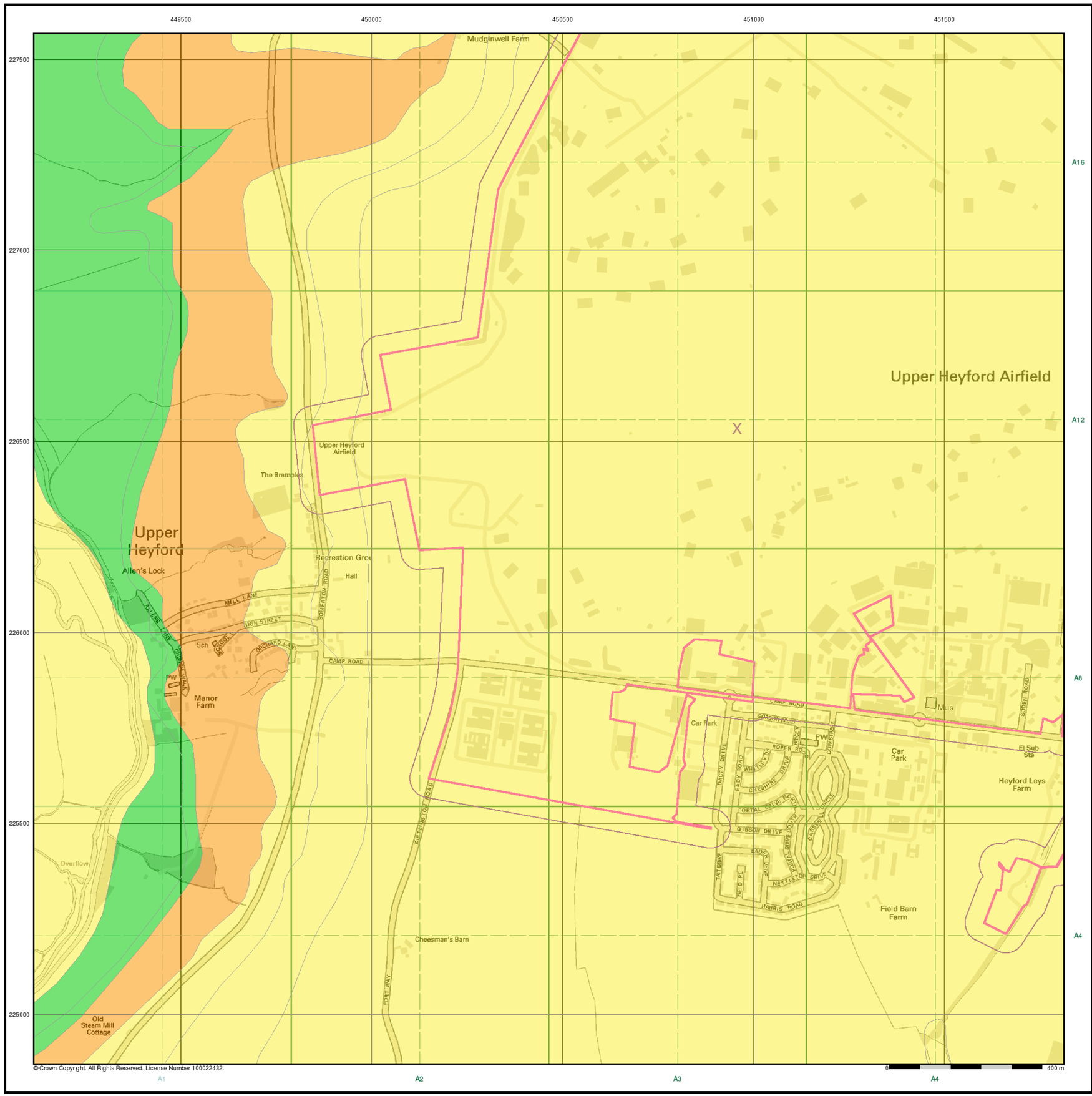


General

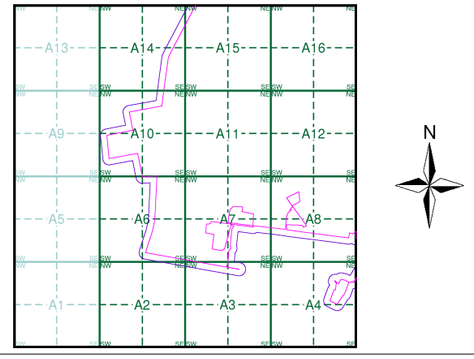
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Estimated Soil Chemistry Nickel - Slice A



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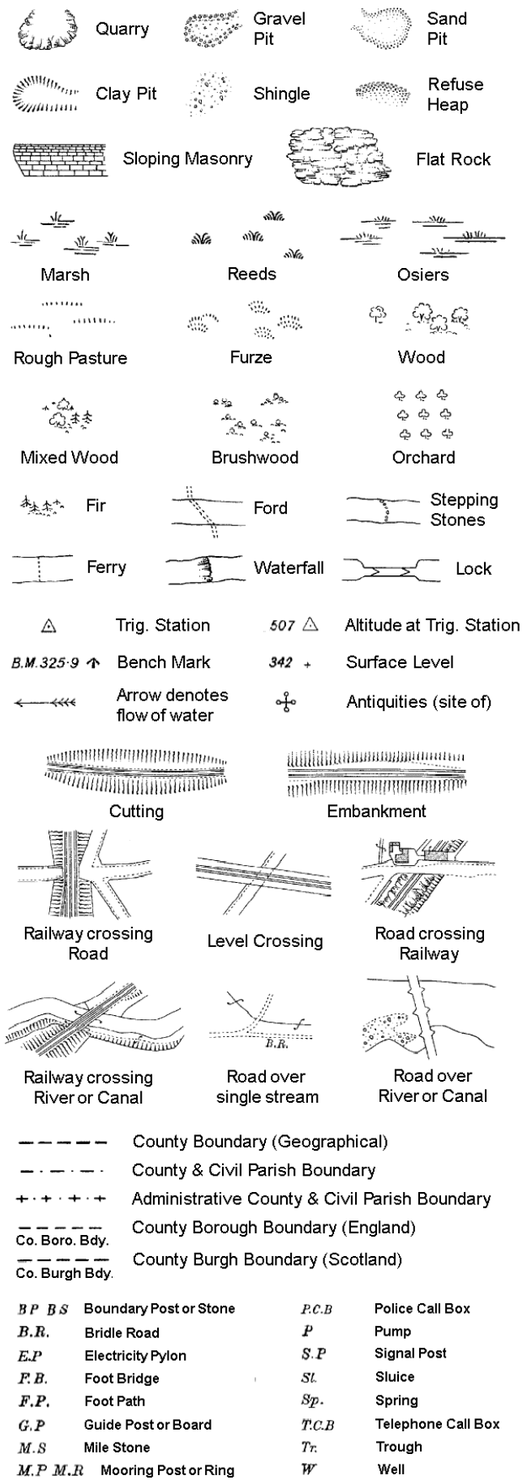
Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



County Boundary (Geographical)

County & Civil Parish Boundary

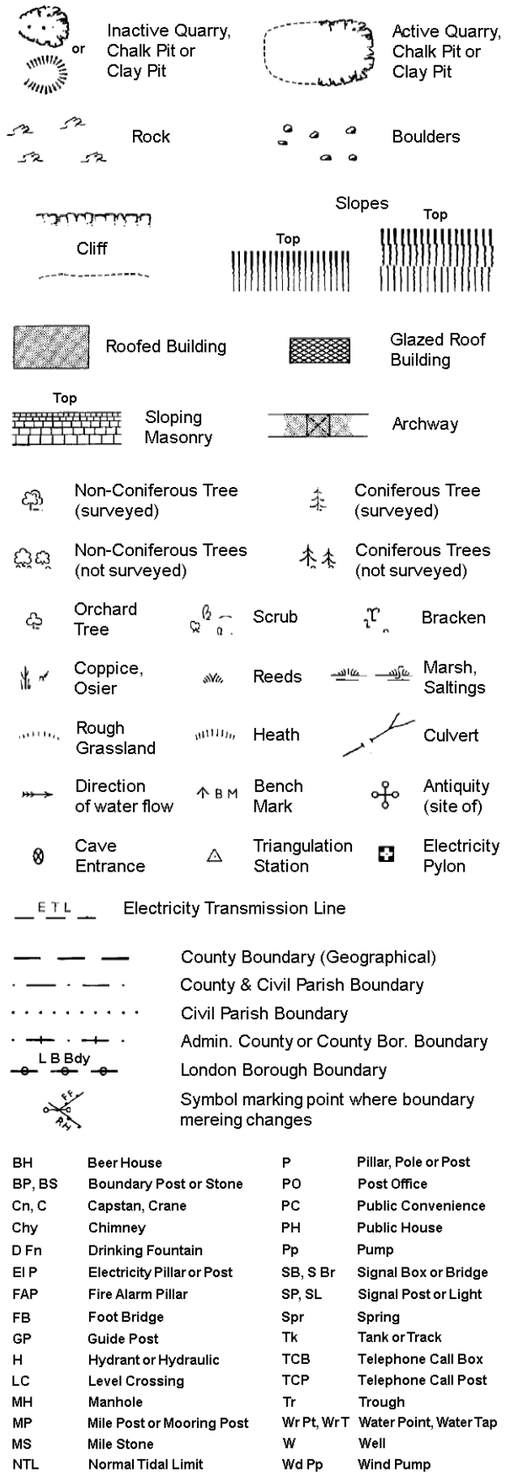
Administrative County & Civil Parish Boundary

Co. Boro. Bdy. County Borough Boundary (England)

Co. Burgh Bdy. County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

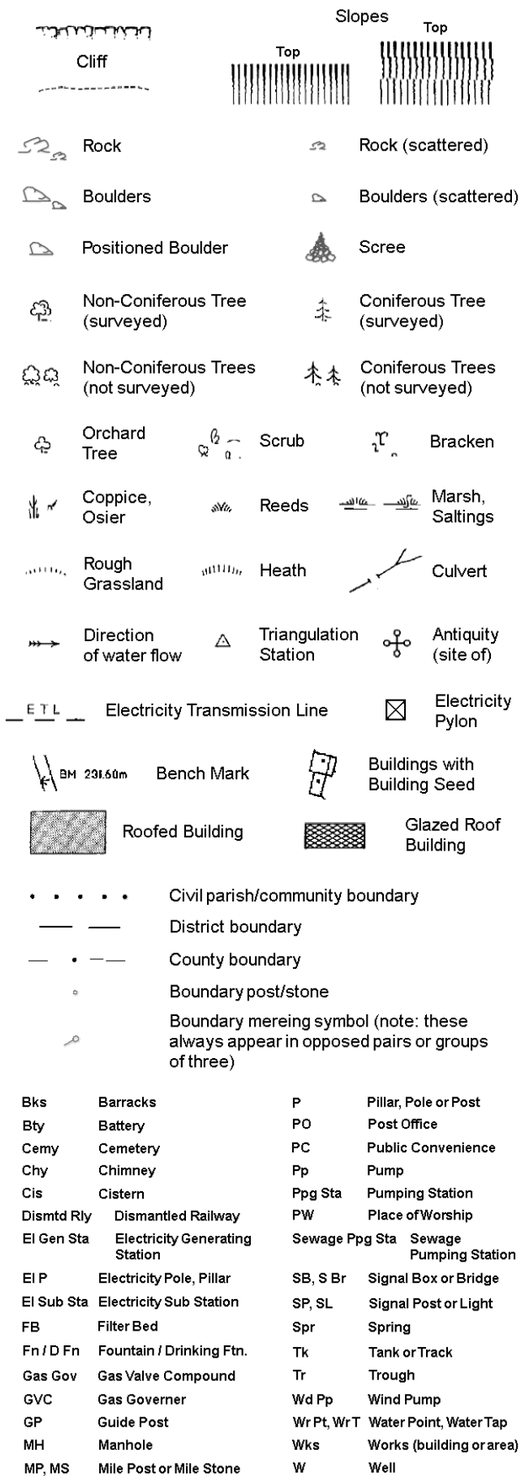
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

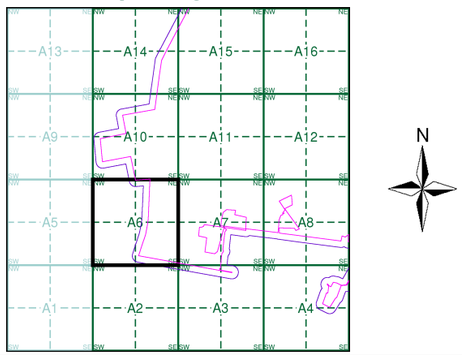
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

Waterman

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Oxfordshire	1:2,500	1875 - 1881	2
Oxfordshire	1:2,500	1900	3
Oxfordshire	1:2,500	1922	4
Ordnance Survey Plan	1:2,500	1974 - 1976	5
Additional SIMs	1:2,500	1976 - 1982	6
Large-Scale National Grid Data	1:2,500	1994	7
Large-Scale National Grid Data	1:2,500	1995	8

Historical Map - Segment A6



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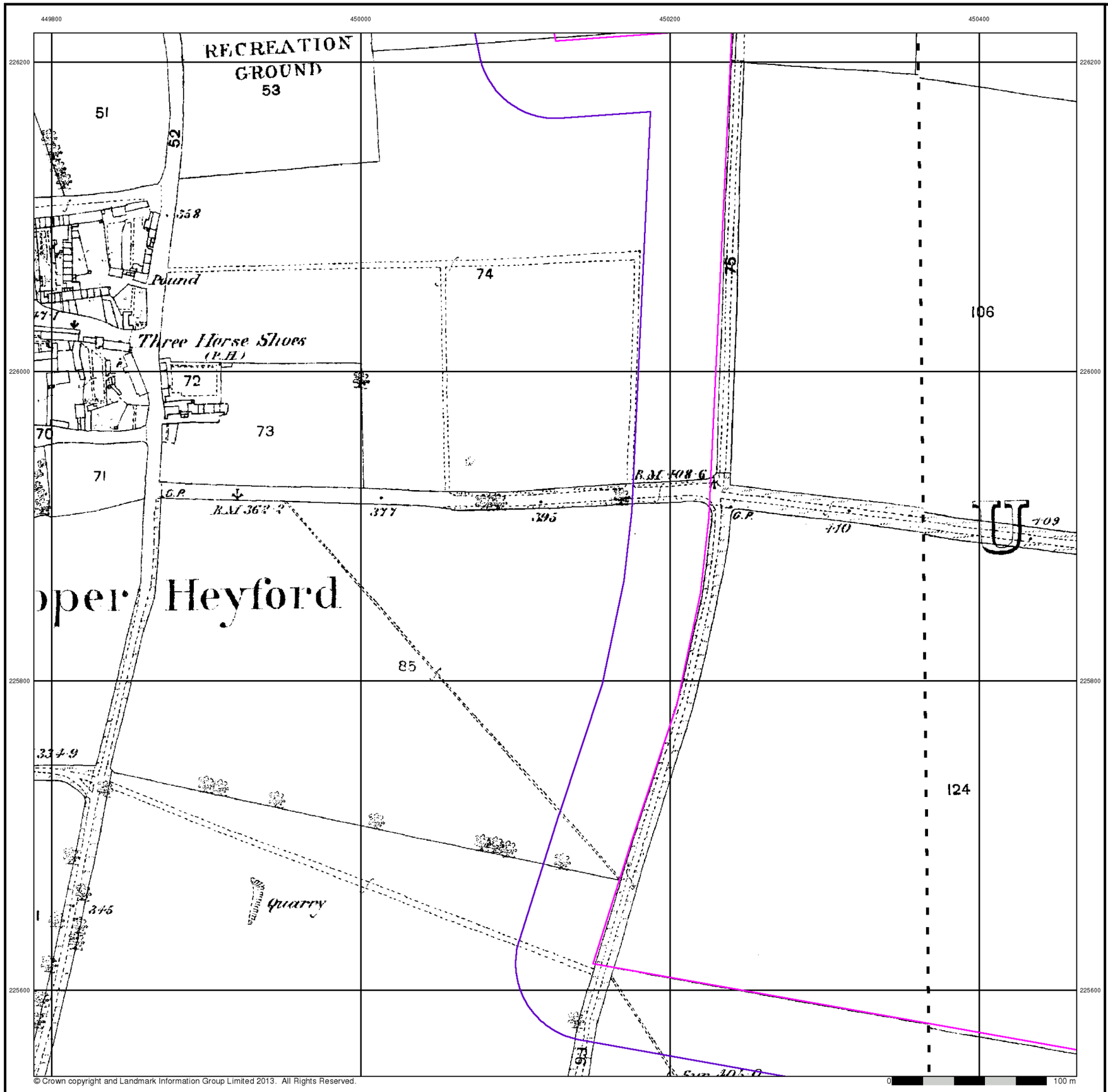


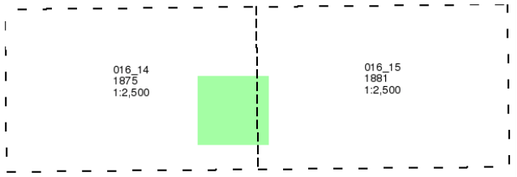
Oxfordshire

Published 1875 - 1881

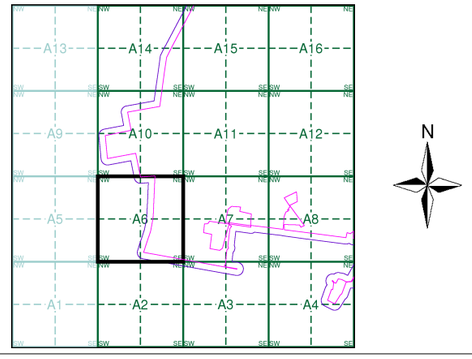
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A6



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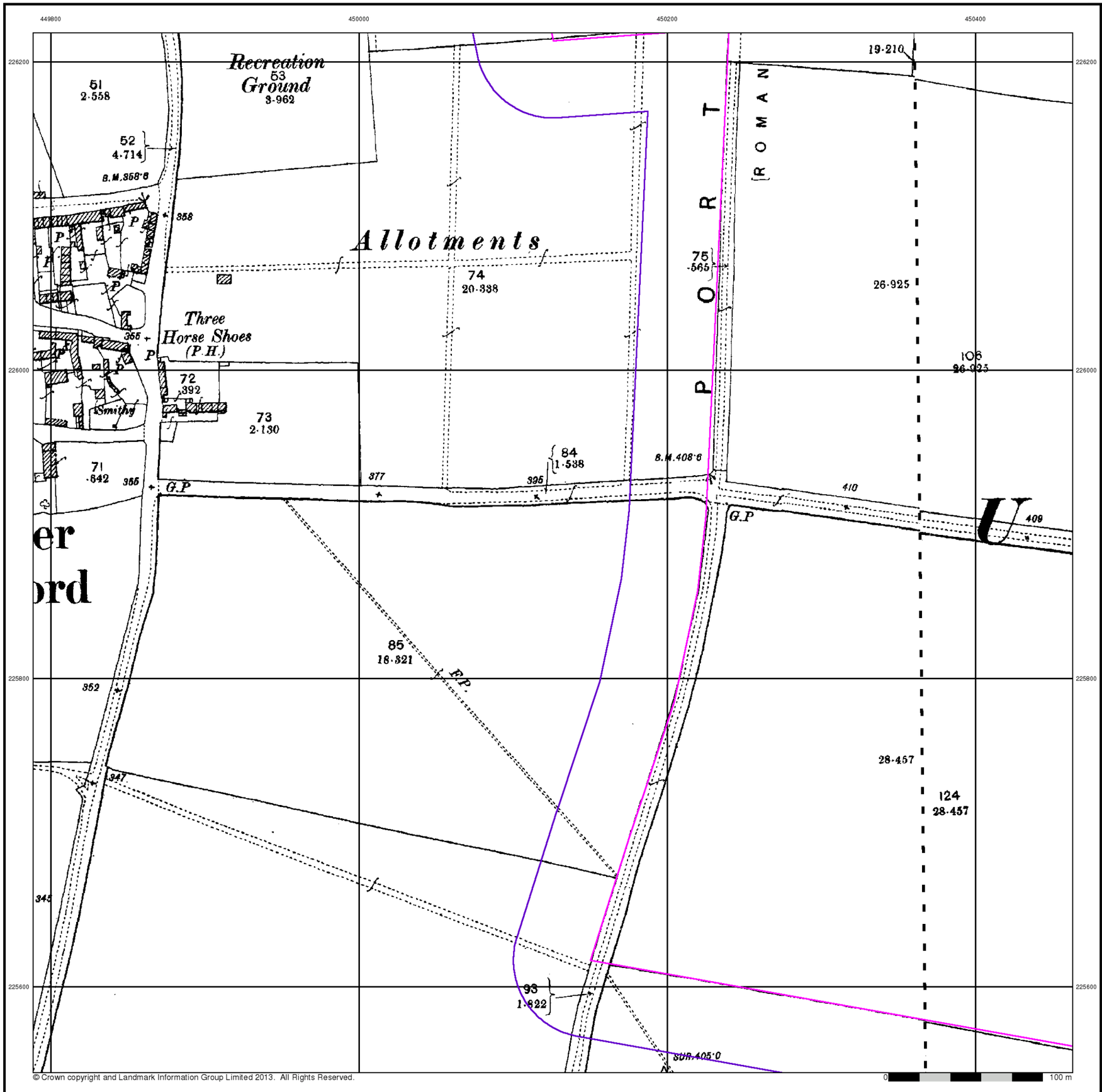

Waterman

Oxfordshire

Published 1900

Source map scale - 1:2,500

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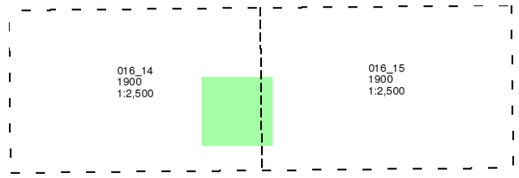
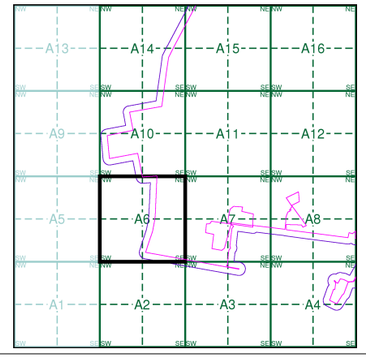


Historical Map - Segment A6



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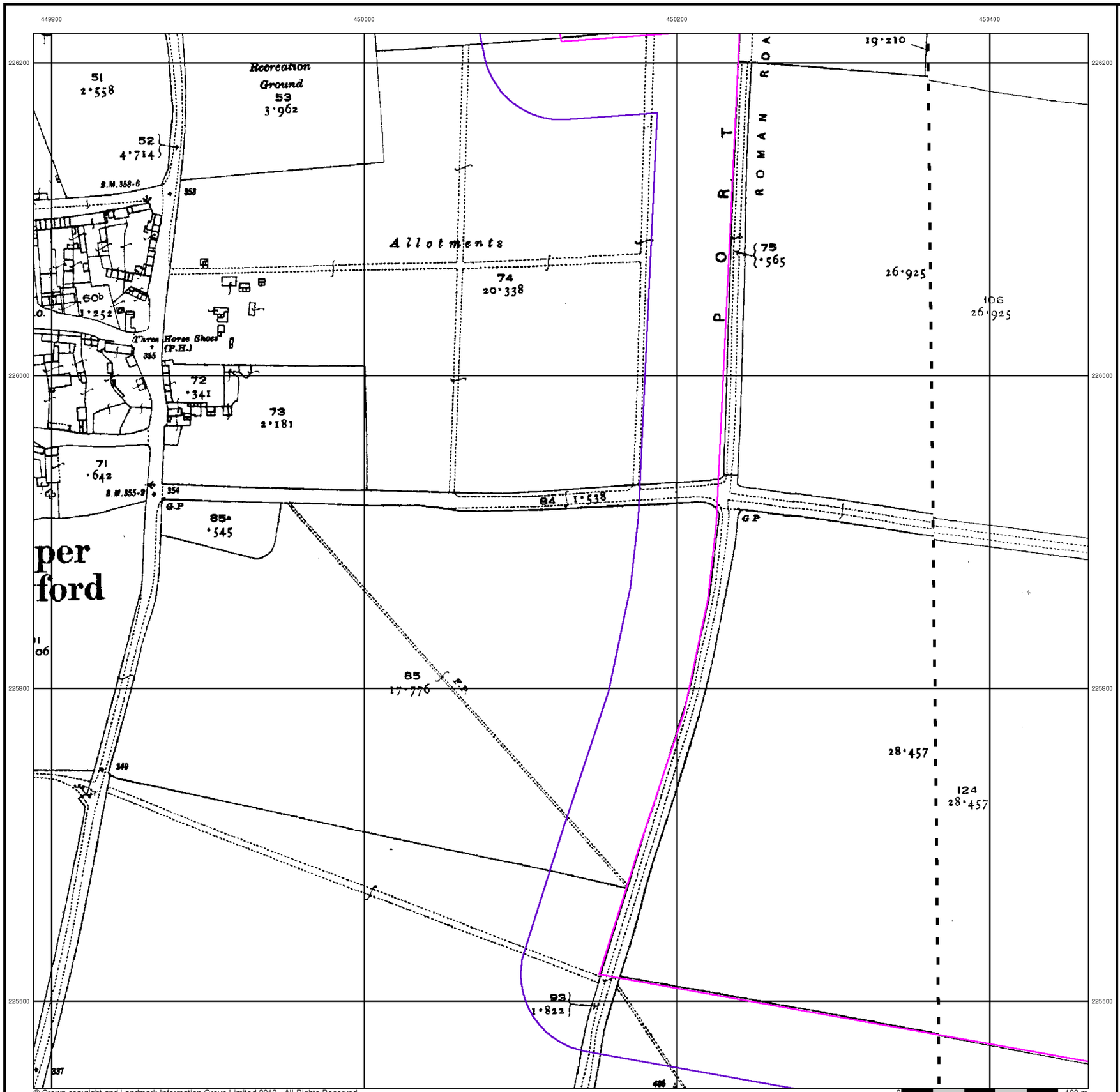


Waterman

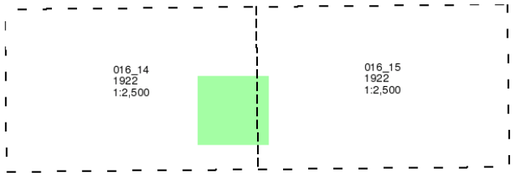
Oxfordshire

Published 1922

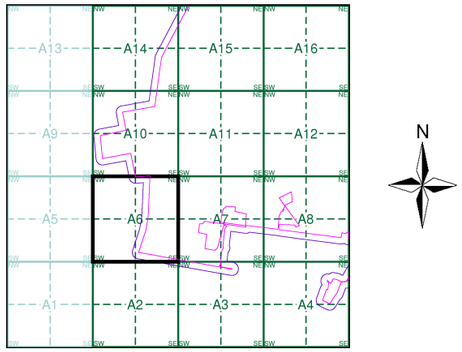
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A6



Order Details

Order Number:	56261419_1_1
Customer Ref:	E10658 - 109
National Grid Reference:	450960, 226530
Slice:	A
Site Area (Ha):	460.65
Search Buffer (m):	50

Site Details

Heyford Park, Oxfordshire

Landmark Information Group
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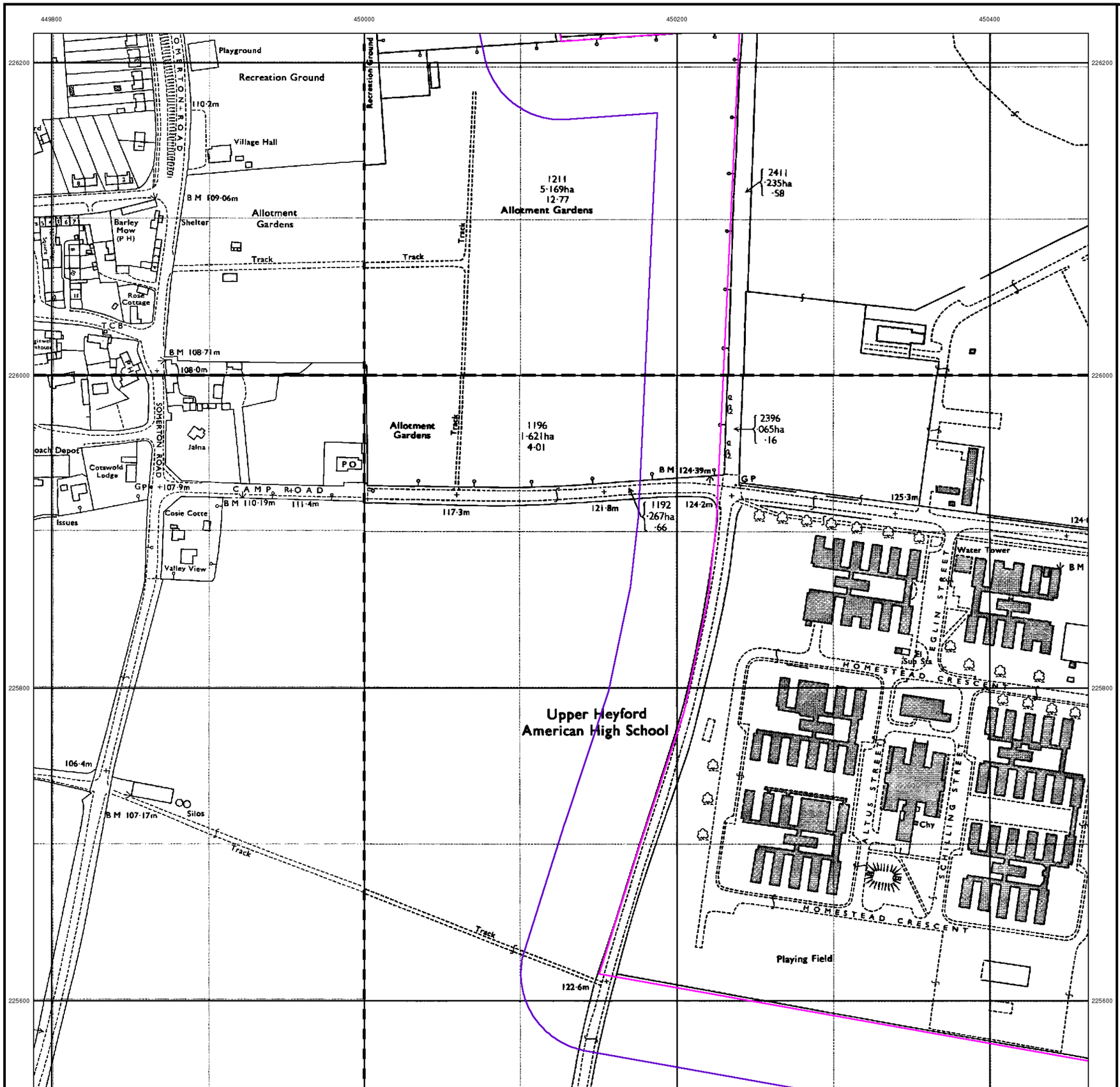

Waterman

Ordnance Survey Plan

Published 1974 - 1976

Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

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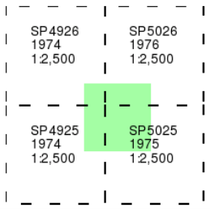

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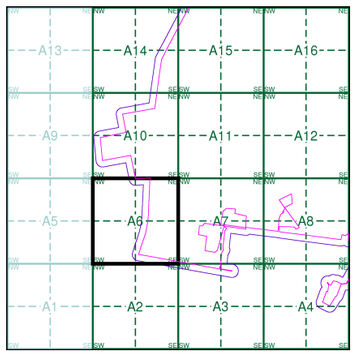

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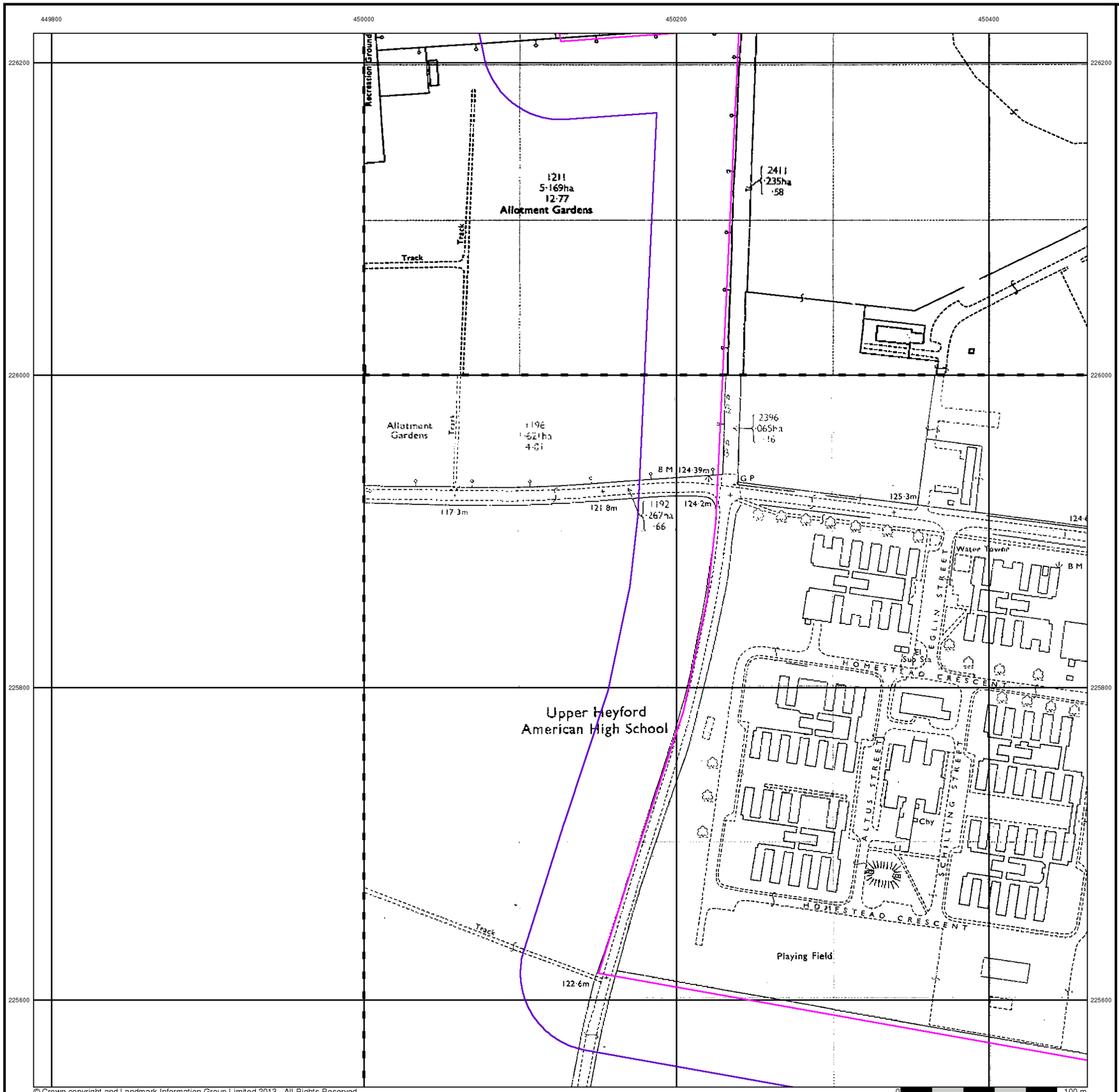


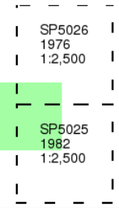
Additional SIMs

Published 1976 - 1982

Source map scale - 1:2,500

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



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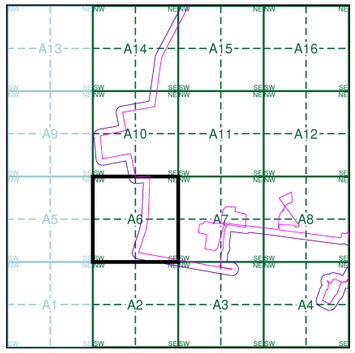

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Large-Scale National Grid Data

Published 1994

Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

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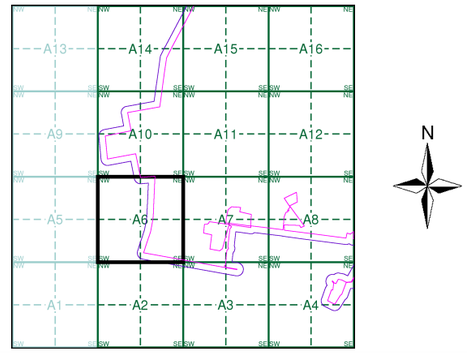
SP4925 1994 1:2,500	SP5025 1994 1:2,500

Historical Map - Segment A6



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Large-Scale National Grid Data

Published 1995

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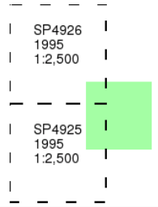

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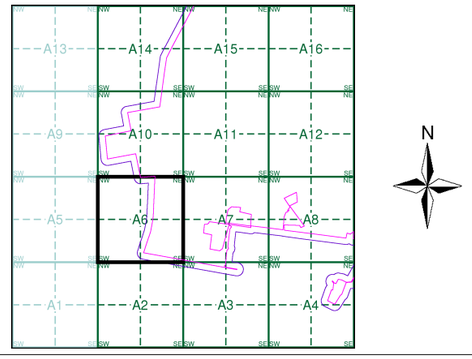

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Appendix C Risk Rating Matrix

Table D.1: Risk rating for contaminated land qualitative risk assessment

Level of Severity	Likelihood		
	Most Likely	Reasonably Foreseeable	Unlikely
Acute harm or severe chronic harm. Direct pollution of sensitive water receptors or serious pollution of other water bodies.	High	High	Low
Harm from long-term exposure. Slight pollution of sensitive receptors or pollution of other water bodies.	Medium	Medium	Low
No significant harm in either short or long term. No pollution of water that is likely to affect sensitive receptors. No more than slight pollution of other water bodies.	Low	Low	Low

Appendix D Environmental Receptors

The Contaminated Land Statutory Guidance has a four category system that considers harm to human health, controlled waters, flora and fauna, property, livestock and crops. The Categories are broadly defined as follows:

1 Contaminated Land – similar to land where it is known that significant harm has been caused or significant harm is being caused

2 Contaminated Land – no significant harm being caused but there is a significant possibility for significant harm to be caused in the future

3 Not Contaminated Land – there may be harm being caused but no significant possibility for significant harm to be caused in the future

4 Not Contaminated Land – no pollutant linkage, normal levels of contaminants and no significant harm being caused and no significant possibility for significant harm to be caused in the future.

Table D.1: Significant pollution to controlled waters

Pollution of controlled waters
Under Section 78A(9) of Part 2A the term "pollution of controlled waters means the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter. The term "controlled waters" in relation to England has the same meaning as in Part 3 of the Water Resources Act 1991, except that "ground waters" does not include water contained in underground strata but above the saturation zones. (Paragraph 4.36)
Given that the Part 2A regime seeks to identify and deal with significant pollution (rather than lesser levels of pollution), the local authority should seek to focus on pollution which: (i) may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems; (ii) which may result in damage to material property; or (iii) which may impair or interfere with amenities and other legitimate uses of the environment. (Paragraph 4.37)
Significant pollution of controlled waters
Paragraph 4.38 states that "The following types of pollution should be considered to constitute significant pollution of controlled waters:
(a) Pollution equivalent to "environmental damage" to surface water or groundwater as defined by The Environmental Damage (Prevention and Remediation) Regulations 2009, but which cannot be dealt with under those Regulations.
(b) Inputs resulting in deterioration of the quality of water abstracted, or intended to be used in the future, for human consumption such that additional treatment would be required to enable that use.
(c) A breach of a statutory surface water Environment Quality Standard, either directly or via a groundwater pathway.
(d) Input of a substance into groundwater resulting in a significant and sustained upward trend in concentration of contaminants (as defined in Article 2(3) of the Groundwater Daughter Directive (2006/118/EC)5)".
Paragraph 4.39 states that "In some circumstances, the local authority may consider that the following types of pollution may constitute significant pollution: (a) significant concentrations6 of hazardous substances or non-hazardous pollutants in groundwater; or (b) significant concentrations of priority hazardous substances, priority substances or other specific polluting substances in surface water; at an appropriate, risk based compliance point. The local authority should only conclude that pollution is significant if it considers that treating the land as contaminated land would be in accordance with the broad objectives of the regime as described in Section 1 (of the Contaminated Land Statutory Guidance). This would normally mean that the authority should conclude that less serious forms of pollution are not significant. In such cases the authority should consult the Environment Agency".
The following types of circumstance should not be considered to be contaminated land on water pollution grounds:

(a) The fact that substances are merely entering water and none of the conditions for considering that significant pollution is being caused set out in paragraphs 4.38 and 4.39 above are being met.

(b) The fact that land is causing a discharge that is not discernible at a location immediately downstream or down-gradient of the land (when compared to upstream or up-gradient concentrations).

(c) Substances entering water in compliance with a discharge authorised under the Environmental Permitting Regulations.

Significant pollution of controlled waters is being caused

In deciding whether significant pollution of controlled waters is being caused, the local authority should consider that this test is only met where it is satisfied that the substances in question are continuing to enter controlled waters; or that they have already entered the waters and are likely to do so again in such a manner that past and likely future entry in effect constitutes ongoing pollution. For these purposes, the local authority should:

(a) Regard substances as having entered controlled waters where they are dissolved or suspended in those waters, or (if they are immiscible with water) they have direct contact with those waters on or beneath the surface of the water.

(b) Take the term "continuing to enter" to mean any measurable entry of the substance(s) into controlled waters additional to any which has already occurred.

(c) Take the term "likely to do so again" to mean more likely than not to occur again.

Land should not be determined as contaminated land on grounds that significant pollution of controlled waters is being caused where: (a) the relevant substance(s) are already present in controlled waters; (b) entry into controlled waters of the substance(s) from land has ceased; and (c) it is not likely that further entry will take place.

Significant Possibility of Significant Pollution of Controlled Waters

In deciding whether or not a significant possibility of significant pollution of controlled waters exists, the local authority should first understand the possibility of significant pollution of controlled waters posed by the land, and the levels of certainty/uncertainty attached to that understanding, before it goes on to decide whether or not that possibility is significant. The term "possibility of significant pollution of controlled waters" means the estimated likelihood that significant pollution of controlled waters might occur. In assessing the possibility of significant pollution of controlled waters from land, the local authority should act in accordance with the advice on risk assessment in Section 3 and the guidance in this sub-section.

In deciding whether the possibility of significant pollution of controlled waters is significant the local authority should bear in mind that Part 2A makes the decision a positive legal test. In other words, for particular land to meet the test the authority needs reasonably to believe that there is a significant possibility of such pollution, rather than to demonstrate that there is not.

Before making its decision on whether a given possibility of significant pollution of controlled waters is significant, the local authority should consider:

(a) The estimated likelihood that the potential significant pollution of controlled waters would become manifest; the strength of evidence underlying the estimate; and the level of uncertainty underlying the estimate.

(b) The estimated impact of the potential significant pollution if it did occur. This should include consideration of whether the pollution would be likely to cause a breach of European water legislation, or make a major contribution to such a breach.

(c) The estimated timescale over which the significant pollution might become manifest.

(d) The authority's initial estimate of whether remediation is feasible, and if so what it would involve and the extent to which it might provide a solution to the problem; how long it would take; what benefit it would

be likely to bring; and whether the benefits would outweigh the costs and any impacts on local society or the environment from taking action.

Reproduced from DEFRA (2012) Contaminated Land Statutory Guidance pursuant to section 78YA of the Environmental Protection Act 1990 as amended by Section 57 of the Environment Act 1995.

Table E.2: Significant harm to human health, ecological systems and property

Relevant types of receptor	Significant harm	Significant possibility of significant harm
Human beings	The following health effects should always be considered to constitute significant harm to human health: death; life threatening diseases (eg cancers); other diseases likely to have serious impacts on health; serious injury; birth defects; and impairment of reproductive functions. Other health effects may be considered by the local authority to constitute significant harm. For example, a wide range of conditions may or may not constitute significant harm (alone or in combination) including: physical injury; gastrointestinal disturbances; respiratory tract effects; cardio-vascular effects; central nervous system effects; skin ailments; effects on organs such as the liver or kidneys; or a wide range of other health impacts. In deciding whether or not a particular form of harm is significant harm, the local authority should consider the seriousness of the harm in question: including the impact on the health, and quality of life, of any person suffering the harm; and the scale of the harm. The authority should only conclude that harm is significant if it considers that treating the land as contaminated land would be in accordance with the broad objectives of the regime as described in Section 1 of the Contaminated Land Statutory Guidance.	The risk posed by one or more relevant contaminant linkage(s) relating to the land comprises: (a) The estimated likelihood that significant harm might occur to an identified receptor, taking account of the current use of the land in question. (b) The estimated impact if the significant harm did occur – i.e. the nature of the harm, the seriousness of the harm to any person who might suffer it, and (where relevant) the extent of the harm in terms of how many people might suffer it. In estimating the likelihood that a specific form of significant harm might occur the local authority should, among other things, consider: (a) The estimated probability that the significant harm might occur: (i) if the land continues to be used as it is currently being used; and (ii) where relevant, if the land were to be used in a different way (or ways) in the future having regard to the guidance on “current use” in Section 3 of the Contaminated Land Statutory Guidance. (b) The strength of evidence underlying the risk estimate. It should also consider the key assumptions on which the estimate of likelihood is based, and the level of uncertainty underlying the estimate.

Relevant types of receptor	Significant harm	Significant possibility of significant harm
Any ecological system, or living organism forming part of such a system, within a location which is: • a site of special scientific interest (under section 28 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and Part 4 of the Natural Environment and Rural Communitites Act 2006 (as amended)); • a national nature reserve (under Section 35 of the WCA 1981 (as amended)); • a marine nature reserve (under Section 36 of the WCA 1981 (as amended)); • an area of special protection for birds (under Section 3 of the WCA 1981 (as amended)); • a "European site" within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2010 (as amended); • any habitat or site afforded policy protection under Section 11 of The National Planning Policy Framework (NPPF) on conserving and enhancing the natural environment (i.e. possible Special Areas of Conservation, potential Special Protection Areas and listed or proposed Ramsar sites); or • any nature reserve established under Section 21 of the National Parks and Access to the Countryside Act 1949.	The following types of harm should be considered to be significant harm: • harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or • harm which significantly affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In the case of European sites, harm should also be considered to be significant harm if it endangers the favourable conservation status of natural habitats at such locations or species typically found there. In deciding what constitutes such harm, the local authority should have regard to the advice of Natural England and to the requirements of the Conservation of Habitats and Species Regulations 2010 (as amended).	Conditions would exist for considering that a significant possibility of significant harm exists to a relevant ecological receptor where the local authority considers that: • significant harm of that description is more likely than not to result from the contaminant linkage in question; or • there is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration. Any assessment made for these purposes should take into account relevant information for that type of contaminant linkage, particularly in relation to the ecotoxicological effects of the contaminant.
Property in the form of: • crops, including timber • produce grown domestically, or on allotments, for consumption • livestock • other owned or domesticated animals; • wild animals which are the subject of shooting or fishing rights.	For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage. The local authority should regard a substantial loss in value as occurring	Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptor where the local authority considers that significant harm is more likely than not to result from the contaminant linkage in question, taking into account relevant information for that type of contaminant linkage,

Relevant types of receptor	Significant harm	Significant possibility of significant harm
	only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In the Guidance states that this description of significant harm is referred to as an "animal or crop effect".	particularly in relation to the ecotoxicological effects of the contaminant.
Property in the form of buildings. For this purpose 'building' means any structure or erection and any part of a building, including any part below ground level, but does not include plant or machinery comprised in a building, or buried services such as sewers, water pipes or electricity cables.	Structural failure, substantial damage or substantial interference with any right of occupation. The local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. In the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled. The Guidance states that this description of significant harm is referred to as a 'building effect'.	Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptor where the local authority considers that significant harm is more likely than not to result from the contaminant linkage in question during the expected economic life of the building (or in the case of a scheduled Ancient Monument the foreseeable future), taking into account relevant information for that type of contaminant linkage.

Reproduced from DEFRA (2012) Contaminated Land Statutory Guidance pursuant to section 78YA of the Environmental Protection Act 1990 as amended by Section 57 of the Environment Act 1995.

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