jurasProposed Phase 3 Mixed Use Development, Billingshurst

Flood Risk Assessment and Drainage Strategy

For

Dunmoore Group

motion

Document Control Sheet

Proposed Phase 3 Mixed Use Development, Billingshurst

Dunmoore Group

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
02/12/2024	Draft	VBH	NJ
21/01/2025	Final	VBH	NJ
02/07/2025	Final_v1	VBH	NJ
03/07/2025	Final_v2	MH	NJ

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1.0 Introduction

1.1 Motion has been commissioned by Dunmoore Group Ltd to undertake a Flood Risk Assessment (FRA) and Drainage Strategy in support of an outline planning application for an extension to the consented mixed used development in Billingshurst, West Sussex. This development will make up Phase 3 of the development site and is located to the south of the existing Phase 1 and 2 developments. The application consists of a Class E (industrial processes) unit, shown as unit 33. The site plan can be found in full in **Appendix A**.

1.2 A Drainage Strategy and SuDS Assessment for the Phase 1 and 2 development was undertaken by Motion in January 2019, as part of the original consented hybrid application. As this report is for a new outline planning application, it is intended to be a standalone report, however where necessary it takes into account the various applications and variations to the original consented hybrid application.

1.3 The site is located approximately to the north of Billingshurst Village centre within the administrative boundaries of Horsham District Council (HDC) and West Sussex County Council (WSCC). The site is currently undeveloped agricultural land.

1.4 This FRA and Drainage Strategy will discuss the risks to the proposed development from all sources of flooding. This report will also define how the site will manage surface water so that the development does not increase flood risk in the area or to neighbouring properties.

1.5 This FRA and drainage strategy follows the guidance set out in:

- National Planning Policy Framework (NPPF)
- Technical Guidance to the National Planning Policy Framework
- CIRIA SuDS Manual 2015 (C753)
- Environment Agency Rainfall Runoff Management for Developments.

1.6 This FRA and drainage strategy pertains only to the design of the drainage system for the built site. It does not provide details of how the site will be drained during the construction phase. This is considered to be temporary works and can only be prescribed and provided by the eventual appointed contractor.

1.7 This report does not provide information on how the drainage infrastructure will be protected during the construction phase of the project. The provision of this information is the responsibility of the appointed contractor.

2.0 Site Description

Table 2.1 – Site Summary

Site Name	Phase 3 Billingshurst.
Location	Phase 3 Billingshurst trade park, Stane Street, West Sussex, RH14 9HN.
Grid Reference	E 509253 N 126594.
Site Area	13,754 m^2 (1.37Ha).
Development Type	Construction of a commercial unit with associated roads and parking.
Environment Agency (EA) Flood Zone	The site is located wholly within Flood Zone 1 (less than 1 in 1,000 annual probability of flooding from rivers or the sea).
Surface Water Flood Risk	The Jeremy Benn Associates (JBA) Comprehensive Flood Maps (CFM's) and the EA's Risk of Flooding from Surface Water (RoFSW) map show that the whole site is in an area of low risk of surface water flooding.
Ground Water Flood Risk	The Envirocheck report shows that the site has not got geological and hydrogeological indicators for groundwater flooding to occur. According to the BGS Groundwater Flooding Susceptibility maps and the GeoSmart Information, the site is in an area of negligible risk.
Local Water Authority	Southern Water (SW).
Local Planning Authority	Horsham District Council (HDC).
Lead Local Flood Authority	West Sussex County Council (WSCC).

Site Location and Description

2.1 The site is located in the village of Billingshurst in the District of Horsham and County of West Sussex. The nearest post code is RH14 9HN and the site co-ordinates are 509253, 126594. The application site is approximately 1.37 hectare (ha). The site is made up of mostly agricultural land with some trees and can be described as Greenfield.

2.2 The site is proposed to be for Class E (industrial processes). An extract of the illustrative masterplan is illustrated in Figure 2.1 and can be found in full in **Appendix A.**

Topography

2.3 A topographical survey of the existing site was undertaken by Hollis in November 2019 which is provided in **Appendix B** of this report. The site generally falls from northeast to southwest with ground levels ranging from approximately 56.05 metres Above Ordnance Datum (mAOD) to 51.94mAOD. There is a drainage ditch which runs along the site's southern boundary.

Geology

2.4 The British Geological Survey (BGS) online Geoindex Mapping indicates that the site is underlain by Weald Clay Formation, which is made up of clay, silt and sand with no superficial deposits of Head. Borehole records from the surrounding area have been obtained from the BGS online index and these can be found in **Appendix C**. These Borehole records support the findings of the BGS mapping and confirm that the site is underlain by clay, silt and sand.

2.5 The Department for the Environment, Food and Rural Affairs (Defra's) Magic Map states that soils in the area are 'Slowly Permeable Seasonally Wet Slightly Acid But Base-Rich Loamy and Clayey Soils'.

Infiltration Testing

2.6 Intrusive ground investigations (infiltration testing) were carried out for the phase 1 and 2 site in August 2018 and the results can be found in **Appendix D.** The infiltration testing supports the findings of the BGS mapping and demonstrates that infiltration techniques are not considered possible on this site. As the phase 3 site is underlain by the same geology as phase 1 and 2 it is assumed that infiltration techniques will also not be possible on this site as well.

Hydrogeology

2.7 Defra's Magic Map indicates that the site is not located in a Groundwater Source Protection Zone (SPZ) or in an Aquifer designation. A flood screening report has been obtained from Envirocheck Landmark Information Group Ltd and this can be found in **Appendix E**. The report shows that the site has not got geological and hydrogeological indicators for groundwater flooding to occur. According to the BGS Groundwater Flooding Susceptibility maps and the GeoSmart Information, the site is in an area of negligible risk.

Existing Drainage Regime

2.8 The site is existing agricultural land site made up of open fields. Therefore, the existing site can be described as greenfield.

2.9 The nearest watercourse to the site is an unnamed ditch (a tributary of the River Arun) which flows in an easterly direction along the site's southern boundary. The nearest main river to the site is the River Adur which is located 1km east of the site.

2.10 Asset location plans were obtained from Southern Water (see **Appendix F**), and these indicate there are no surface water sewers which currently serve the site.

2.11 The total area of the site is approximately 1.37 ha. UKSuDS's online calculator was used to determine the QBAR greenfield runoff rate for the site area that is to be developed. This, showings a result of 7.44 l/s or 5.43 l/s/ha. The UKSuDS greenfield calculations can be found in Table 2.2 and in full in **Appendix G.**

Table 2.2 – Greenfield Runoff Rate

Return Period	1 in 1	1 in 30	1 in 100	QBAR
Discharge Rate (l/s/ha)	4.62	12.49	17.32	5.43
Discharge Rate (l/s)	6.32	17.11	23.73	7.44

3.0 Legislative and Policy Framework

Flood and Water Management Act

3.1 The Flood and Water Management Act 2010 (FWMA) received Royal Assent on 8th April 2010. The Act was introduced to enforce some of the key proposals set out within UK Government flood and water strategies along with UK Government's response to the Sir Michael Pitt's Review of the summer 2007 floods.

3.2 LLFA's, including West Sussex County Council (WSCC), have a responsibility under the FWMA to develop, maintain, apply and monitor the application of a strategy for local flood risk in their area. Local flood risk is defined as flood risk arising from surface run-off, groundwater and ordinary watercourses (i.e. non main rivers). The EA plays a role in managing the watercourses designated as 'main rivers'.

The Environment Agency Flood Map for Planning

3.3 The Environment Agency's (EA) Flood Map for Planning gives an indicative prediction of areas at risk of fluvial and tidal flooding. The mapping is an amalgamation of modelled flood levels and historical flood event outlines.

3.4 The Flood Map is split into 'Flood Zones', which demarcate the extent of flooding from rivers or the sea for different return periods. The Flood Map for Planning shows the extent of the natural floodplain if there were no defences or other man-made structures. They do not provide a definitive picture of where flooding would occur; rather, they provide an indicative prediction of areas at risk.

3.5 Table 3.1, below, lists the flood zone categories and explains the flood risk probabilities they represent.

Table 3.1 – Flood Zone Categories

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3)
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. This is generally delineated as land having a 1 in 30 or greater annual probability of flooding. Local planning authorities should identify in their SFRAs areas of functional floodplain and its boundaries accordingly, in agreement with the EA. (Not separately distinguished from Zone 3a on the Flood Map)

The National Planning Policy Framework

3.6 The NPPF sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk. The Technical Guidance to the NPPF provides further information on the policies set out in the NPPF. It encourages development to take place in areas of lower flood risk wherever possible and stresses the importance of preventing increases in flood risk off-site to the wider catchment area. This includes ensuring that flood risk is taken into account at all stages of the planning process, avoiding inappropriate development in areas at risk of flooding and directing development away from those areas where risks are highest.

3.7 A site-specific FRA is required for proposals of 1ha or greater in Flood Zone 1, all proposals for development in Flood Zones 2 and 3, or in an area within Flood Zone 1 that has critical drainage problems (as notified to the local planning authority by the EA). The FRA should identify and assess the risks of all forms of flooding to and from the development and demonstrate how these flood risks will be managed so that the development remains safe throughout its lifetime, taking climate change into account.

3.8 Within each Flood Zone, a key factor in determining planning applications for development is the flood risk vulnerability of a development. Table 2 of the Technical Guidance to the NPPF categorises different development types according to their vulnerability to flooding. These categories are:

- Essential infrastructure;
- Highly vulnerable development;
- More vulnerable development;
- Less vulnerable development, and;
- Water-compatible development.

3.9 Within the different Flood Zones each of the above development categories are considered appropriate or not permissible. The Technical Guidance to the NPPF lists these as:

Flood Zone 1:

- All the development categories listed above are appropriate.

Flood Zone 2:

- Water-compatible, less vulnerable development, more vulnerable development and essential infrastructure is appropriate in this zone.

Flood Zone 3a:

- Water-compatible and less vulnerable development is appropriate in this zone. Highly vulnerable development should not be permitted in this zone.

Flood Zone 3b:

- Only water-compatible development and essential infrastructure that has to be there should be permitted in this zone.

3.10 The above information sets out the basis by which developments must be assessed in terms of flood risk. Later in this report the proposed development will be reviewed against the Flood Zone in which it is located. This will inform the appropriateness of the proposed development, as per the advice within the Technical Guidance to the NPPF.

Lead Local Flood Authority

3.11 As of April 2015, the LLFA became a statutory consultee on all major planning applications. The LLFA is required to assess planning applications in respect of surface water drainage and sustainable drainage systems. WSCC is the LLFA for the Billingshurst Area.

4.0 Current Flood Risk

4.1 Flooding can arise from a variety or combination of sources. These may be natural or artificial and may be affected by climate change. These are discussed, in the following two sections and summarised in the next chapter. The probability of any likely impacts is also assessed.

Fluvial Flood Risk

4.2 The nearest watercourse to the site is an unnamed ditch (a tributary of the River Arun) which flows in an easterly direction along the site's southern boundary. The nearest main river to the site is the River Adur which is located 1km east of the site.

4.3 The EA's Flood Map for Planning (**Appendix H**) shows that the entire site is located within Flood Zone 1 (less than 1 in 1000 annual probability of flooding from rivers or the sea). The Envirocheck Flood Screening Report in **Appendix E** places the site outside of any fluvial or tidal flood risk areas. Commercial development is considered to be 'less vulnerable' by the NPPF and is appropriate in Flood Zone 1. Therefore, it is considered that the site is at a very low risk of flooding from rivers and the sea and the development is appropriately located.

Therefore, it is considered that the proposed development site is currently at a low risk of fluvial flooding.

Surface Water Flooding

4.4 Surface water, or pluvial flooding, results from rainfall-generated overland flow, where rainwater has not yet reached a watercourse or sewer and where the local drainage systems become overwhelmed. Pluvial flooding often occurs during short, very intense storms, but can also occur during longer periods of rainfall when the ground is already saturated, or where land has low permeability due to development.

4.5 In these conditions surface water can build up where the topography allows it to converge or pond. Where it gathers it will travel down prevailing gradients. Pluvial flooding then occurs at locations where significant surface water flow paths converge, at localised low points and/or due to overland obstructions. In urban areas pluvial flooding often occurs where the built environment channels overland flow routes (down roads that are bounded by kerbs, for example) or where there are obstacles to the natural overland flow routes. Boundary walls and buildings are often the main causes and, hence, the likelihood of pluvial flooding to impact property and gardens.

4.6 Pluvial flooding is exacerbated in many cases by the mistreatment or failure of the below ground infrastructure (including partial or full blockages of gullies and/or within the combined sewers and the accumulation of fats, oils and greases within the sewer networks).

4.7 Generally speaking, pluvial flooding is less of an issue in rural areas. This is partly because the natural 'greenfield' state of land allows for the interception of rainfall and the slowing down of overland flow, so the accumulation of surface water is less likely. It is also because there are much less 'receptors' of surface water flooding in rural areas and many incidences of surface water flooding in rural areas go unnoticed or unreported as they are of no consequence.

4.8 The Envirocheck Flood Screening Report in **Appendix E** provides detailed information on surface water flood risk on the site. Referring to the Jeremy Benn Associates (JBA) Comprehensive Flood Maps (CFM's), it shows that the site is not at risk from the 1 in 1,000-year (0.1% AEP) pluvial flood event.

4.9 The EA's Risk of Flooding from Surface Water (RoFSW) map for the site can be found in **Appendix I**. This mapping shows that the site is in the 'very low' surface water flood risk category (less than a 0.1% AEP surface water flood event).

4.10 Therefore, it is considered that the site is at a very low risk of surface water flooding. The development is considered to be 'less vulnerable' by the NPPF which means that it is appropriate in this location with regards to the levels of local surface water flood risk.

Therefore, it is considered that the proposed development site is at a low risk of surface water flooding. The development is considered to be 'less vulnerable' by the NPPF and the commercial unit is therefore considered to be appropriately located.

Groundwater Flooding

4.11 The risk of groundwater flooding is dependent on local geological and hydrogeological conditions at any given time. Groundwater levels rise during wet winter months and fall again in the summer when rainfall is low, and extractions are higher. In very wet winters, rising groundwater levels can reactivate flow in ephemeral streams that only flow for part of the year or even lead to the flooding of normally dry land.

4.12 As mentioned in paragraph 2.7, the Envirocheck Flood Screening Report in **Appendix E** shows that the site has not got geological and hydrogeological indicators for groundwater flooding to occur. According to the BGS Groundwater Flooding Susceptibility maps and the GeoSmart Information, the site is in an area of negligible risk.

4.13 Therefore, the site is considered to be at low risk of flooding from groundwater.

Flooding from Infrastructure Failure

4.14 Sewer flooding can occur when the capacity of the infrastructure is exceeded by excessive flows, or because of a reduction in capacity due to collapse, siltation, blockage, or if the downstream system becomes surcharged. This can lead to the sewers flooding onto the surrounding ground via manholes and gullies, which can generate overland flows.

4.15 Typically, sewer systems are constructed to accommodate rainstorms with a 30-year return period or less, depending on their age. Consequently, rainstorm events greater than 1 in 30-years would be expected to result in surcharging of some parts of the sewer system. In fact, due to most gullies being poorly maintained and often partially blocked with silt, leaves and other debris, their capacity is often estimated to be closer to the 1 in 10-year storm.

4.16 The existing sewer runs in the vicinity of the site have not been surveyed using CCTV, so the condition of the connecting pipework is unknown. There are no records of flooding from the on-site sewerage on of the site. Therefore, the site is considered to be at low risk of flooding from infrastructure failure.

Flooding from Artificial sources

4.17 The EA provides a map showing the maximum potential flood extent should all reservoirs with a capacity of greater than 25,000 cubic metres fail and release the water they hold.

4.18 The map shows that the site would not experience flooding in this scenario. There are no other significant artificial waterbodies (such as canals) in proximity of the site.

4.19 Therefore, the site is considered to be at low risk of flooding from artificial sources.

The Sequential and Exception Tests

4.20 In July 2021, Chapter 14 of the NPPF was updated with changes that required all plans to take into account all sources of flooding and apply a sequential, risk-based approach to the location of the development. This was specifically laid out in in paragraphs 161 and 162, which stated that the aim should be to steer new development to areas with the lowest risk of flooding from any source and opportunities should be provided for new green and other infrastructure that can reduce the causes and impacts of flooding.

4.21 With specific regard to the proposed development, the EA Flood Product 4 dataset confirmed that the Site is located wholly within Flood Zone 1. The site is at low risk of groundwater flooding, infrastructure failure and of flooding from artificial sources. Both the JBA Pluvial Flood Risk Mapping and the EA's Risk of Flooding from Surface Water maps show that the Site is not affected by surface water flooding.

4.22 Therefore, the development will be safe with respect to flooding during its lifetime and will not increase the risk of flooding to other sites. Therefore, the proposed development meets the requirements of the Sequential and Exception Test.

5.0 Future Flood Risk & Climate Change

5.1 The 2021 NPPF and the supporting Technical Guidance document sets out how flood risk should be considered over the lifetime of a development. This requires an increase in flood risk due to climate change to be taken into account. Both peak river flows and rainfall intensity should be assessed.

Peak River Flows

5.2 The EA Flood map shows that the site is wholly located within Flood Zone 1.

5.3 The nearest watercourse to the site is an unnamed ditch (a tributary of the River Arun) which flows in an easterly direction along the site's southern boundary. The nearest main river to the site is the River Adur which is located 1km east of the site.

5.4 As the site is not near any higher risk flood zones, increases in future peak river flows do not need to be considered.

Peak Rainfall Intensity

5.5 With climate change it is becoming more common to see rainfall events of higher intensity, particularly in the southeast of England. Increased rainfall intensity affects river levels and drainage systems, with the result being an increase in surface water flooding and sewerage surcharge.

5.6 The NPPF states that, for flood risk assessments, the Peak Rainfall Allowances Map should be referenced to found out what the anticipated changes in peak rainfall are. For residential developments, which have a minimum lifespan of 100 years, the upper end climate change allowances for both the 3.3% AEP and 1% AEP events should be used.

5.7 The development site lies within the Arun and Western Streams Management Catchment. In this catchment, the upper end climate change allowance for the 3.3% AEP and 1% AEP rainfall events are 40% and 45%, respectively. Therefore, the development can expect peak rainfall increases of this magnitude and should use these percentage increases in the assessment of future surface water flood risk.

5.8 The site is at 'very low' risk of surface water flooding and is anticipated to remain that way.

5.9 However, acknowledging that peak rainfall intensities are expected to increase, it is important that:

- Any changes to the land in this area must remain sensitive to the local surface water flood risk. This will ensure that any natural overland flow routes and surface water pathways will remain the same and the conveyance of surface water is not impeded.
- The surface water strategy for the site takes the latest climate change predictions into account, so as not to increase flood risk on- or off-site.

Residual Flood Risk

5.10 It is important to recognise that flood risk can never be fully mitigated and there will always be a residual risk of flooding. The residual risk is associated with several potential risk factors, including (but not limited to):

- A flood event that exceeds that for which the local flood defences or local drainage system has been designed to withstand.
- A residual danger posed to property and life because of flood defence failure through overtopping or structural collapse.
- General uncertainties inherent in the prediction of flooding.

5.11 Modelling of flood events is not an exact science. Therefore, there is an inherent uncertainty in the prediction of flood levels and extents used in the assessment of flood risk. EA's Flood Map for Planning is largely based upon detailed modelling within the area. However, other mapping products require numerous assumptions to be made. Whilst they all provide a good depiction of flood risk for specific modelled conditions, all modelling requires the making of core assumptions, and these might not occur in the open and dynamic environment of a flood event. Also, the EA's Flood Map for Planning and other flood modelling is updated regularly. Interested parties are recommended to keep abreast of this so that a significant change or increase in flood risk can be determined.

Table 5.1 – Residual Flood Risk

Flood Source	Risk Level				Comment
	High	Medium	Low	Very Low	
Fluvial/ Tidal				X	Flood Zone 1
Groundwater				X	Geology is hydraulically unproductive.
Surface Water				X	The site is at very low surface water flood risk.
Canals				X	There are no canals in the vicinity of the site.
Reservoirs				X	The Reservoir Flood Risk Map places the site well outside a maximum extent of flooding.
Infrastructure Failure				X	No evidence that existing infrastructure has failed.
Increase due to Climate Change				X	Increased peak river flows and rainfall intensities are not expected to affect any infrastructure or properties.

6.0 Surface Water Drainage Strategy

Proposed Surface Water Drainage Strategy

6.1 Current planning policy and EA guidance requires developments to employ SuDS (Sustainable Drainage Systems) techniques wherever feasible. Careful design of SuDS features can ensure that a development's surface water drainage closely reflects the natural hydrology of the pre-developed site.

6.2 SuDS will attenuate and treat surface water run-off quantities at the source (source control) in line with NPPF and EA policies.

6.3 Source control systems treat surface water close to the point of origin, in features such as soakaways, permeable paving and swales, to name a few.

6.4 The existing and proposed impermeable areas for the development site are summarised in Table 6.1 below. This demonstrates that the proposed development will increase the hardstanding area of the site. An impermeable area plan is detailed in **Appendix J.**

Table 6.1 – Existing and Proposed Surface Cover

Land Use	Impermeable Area		Gardens and Landscaping	
	Area (ha)	% Cover	Area (ha)	% Cover
Existing	0.00	0	1.37	100
Proposed	1.18	86	0.19	14

The Drainage Hierarchy

6.5 The drainage hierarchy is a sequential check that intends to ensure that all practical and reasonable measures are taken to manage surface water as high up the hierarchy (with '1' being the highest) as possible, and that the amount of surface water managed at the bottom of the hierarchy is minimised. The PPG to the NPPF) states that "*Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable*".

6.6 The drainage hierarchy presented in the NPPF presents only four tiers of drainage options. This has been expanded on and adopted by others and now can be viewed as the following:

1. Store rainwater for later use.
2. Use infiltration techniques, such as porous surfaces in non-clay areas.
3. Attenuate rainwater in ponds or open water features for gradual release.
4. Attenuate rainwater by storing in tanks or sealed water features for gradual release.
5. Discharge rainwater direct to a watercourse.
6. Discharge rainwater to a surface water sewer/drain.
7. Discharge rainwater to the combined sewer.
8. Discharge rainwater to the foul sewer.

6.7 The first two tiers of the drainage hierarchy ensure that surface water is retained within the site boundary and does not increase flood risk to others. This is always the most preferable method of surface water management.

6.8 The next six tiers of the hierarchy provide regional control, but with decreasing levels of pollution removal and reduced potential for amenity and habitat creation with each tier of the drainage hierarchy.

6.9 Within the lower six tiers of the drainage hierarchy, there must be some form of flow restriction, so that off-site surface water discharge resembles greenfield runoff rates, as much as is reasonably practicable. This requires on-site storage facilities, which may include ponds, swales, subsurface storage tanks and System C (non-infiltration) permeable paviours with flow control devices. Again, methods that provide the most potential for amenity and pollution removal should be favoured.

6.10 Each tier of the drainage hierarchy has been considered for the surface water drainage for the development. In order of preference, the outcome of these considerations is below.

Tier 1 - Store rainwater for later use

6.11 As detailed in the 2024 Water Neutrality Report undertaken by Motion the development is proposed to have a rainwater harvesting system. The water captured by the rainwater harvesting system will be filtered and disinfected for potable water use, therefore it will be suitable for use in flushing toilets, wash hand basins and drinking. It is recommended that the tank size is greater than 12,000 litres to meet the daily demand. For further details refer to TN32 Phase 3 Unit 33, Water Neutrality Statement.

Tier 2 - Use Infiltration techniques, such as porous surfaces in non-clay areas

6.12 As detailed in Chapter 2 the BGS mapping suggests that the site is underlain by Weald Clay Formation, which is made up of clay, silt and sand with no superficial deposits. Intrusive ground investigations (infiltration testing) were carried out for the phase 1 and 2 site in August 2018 and the infiltration testing supports the findings of the BGS mapping and demonstrates that infiltration techniques are not considered possible on this site. As the phase 3 site is underlain by the same geology as phase 1 and 2 it is assumed that infiltration techniques will also not be possible on this site as well.

Tier 3 - Attenuate rainwater in ponds or open water features for gradual release

6.13 Due to the site layout and the nature of proposed use of the site, it is proposed to provide a swale on the southern edge of the development site to allow for site surface water exceedance flows, including the proposed gravel parking area and also provide a suitable outfall for the wider drainage network. This swale will outfall into an adjacent ditch via a flow control chamber, which has been set out in further detail in Tier 5.

Tier 4 - Attenuate rainwater by storing in tanks or sealed water features for gradual release

6.14 A hydraulic model has been produced using MicroDrainage's Network module to represent the proposed drainage strategy, which utilises permeable paving to discharge surface water.

6.15 The MicroDrainage model results can be found in **Appendix L**. The model was run for a number of events and return periods. They are as follows:

- 1 in 1-year rainfall for 15, 30, 60, 120, 240, 360, 480, 960 and 1440-minute storm durations
- 1 in 30-year (plus 40% increase for climate change) rainfall for 15, 30, 60, 120, 240, 360, 480, 960 and 1440-minute storm durations
- 1 in 100-year (plus 45% increase for climate change) rainfall for 15, 30, 60, 120, 240, 360, 480, 960 and 1440-minute storm durations.

6.16 MicroDrainage software was used to determine the size of the required attenuation tank for storm events up to and including the 1 in 100-year storm (+ 45% increase for climate change).

6.17 It should be noted that in the model the MADD factor was set to 0 and a Cv value of 1 for summer and winter storms was used. In addition, FEH 2022 rainfall data was used (due to the limitations of the MicroDrainage software, this is incorrectly labelled as FEH 1999 rainfall data).

6.18 The drainage calculations do not include a surcharged outfall to the existing ditch as this is not representative of the conditions on site. The site area is the only catchment area which drains into the ditch and is illustrated in Figure 6.1. Therefore, a surcharged outfall does not represent the existing site conditions.

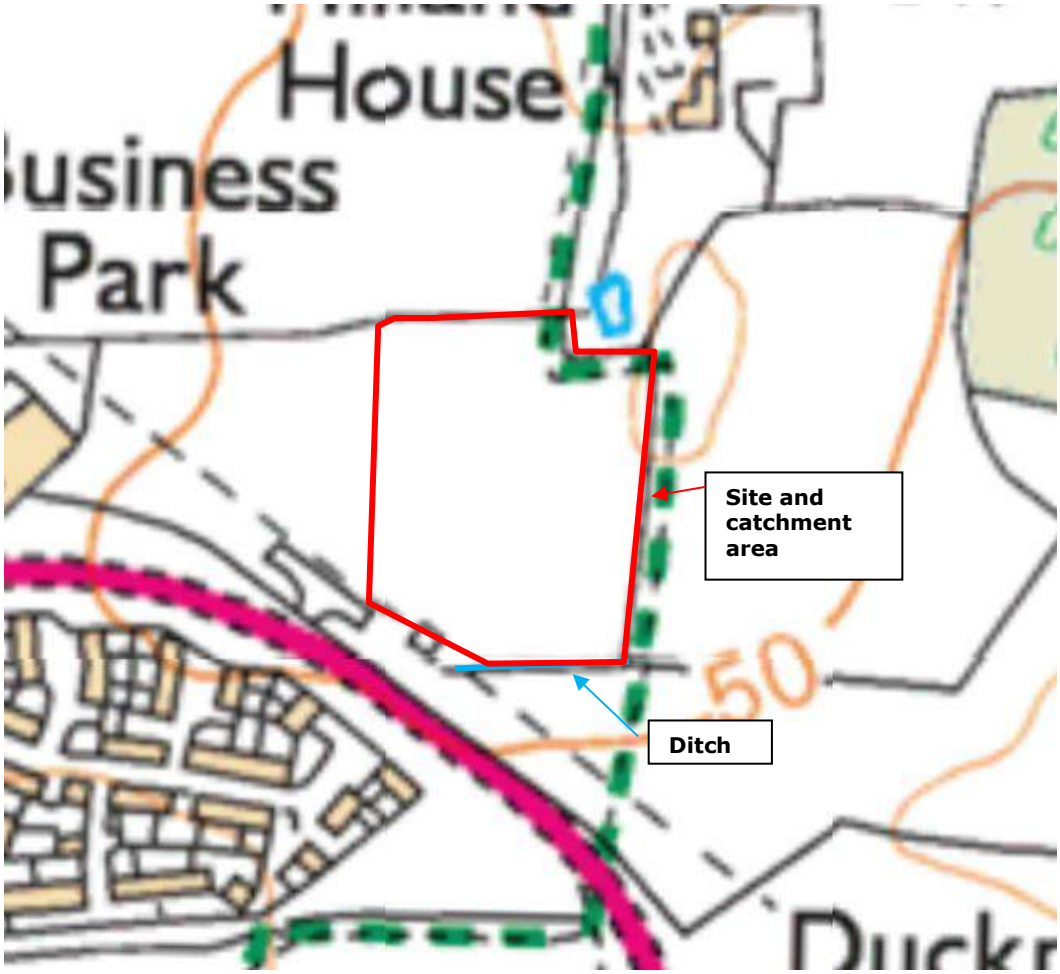

Figure 6.1 – Watercourse on site Catchment Area

6.19 In order to attenuate surface water from development site it is proposed to have one attenuation tank on the south of the site which discharges into a swale on the southern boundary. The swale discharges into the ditch to the south of the site via a flow control chamber, which has been set out in further detail in the next tier. The attenuation tank will be 0.8m deep covering an area of 1,420m^2. In addition, permeable paving will be used for the parking courts. The permeable paving will be 450mm deep with 30% voids and will provide up to 196m^3 of attenuation.

6.20 The MicroDrainage hydraulic model results can be found in full in **Appendix L**. The surface water drainage strategy can be found in full in be found in **Appendix K**.

6.21 The MicroDrainage Network model has shown that the proposed drainage strategy can discharge surface water with no flooding for the 1 in 100-year + 45% event. Therefore, the proposed drainage strategy can be considered as appropriate and suitable for the proposed development.

Tier 5 - Discharge rainwater direct to a watercourse

6.22 It is proposed to outfall the proposed surface water drainage network to an existing ditch located along the southern development site boundary. A flow control chamber will ensure that surface water runoff is discharged at a restricted rate of 6.4 l/s (the QBAR greenfield runoff rate for the total impermeable area on site).

Tier 6 - Discharge rainwater to a surface water sewer/drain

6.23 This tier of the drainage hierarchy will not be needed for surface water discharge.

Tier 7 - Discharge rainwater to the combined sewer

6.24 This tier of the drainage hierarchy will not be needed for surface water discharge.

Tier 8 - Discharge rainwater to the foul sewer

6.25 This tier of the drainage hierarchy will not be needed for surface water discharge.

Exceedance Event

6.26 An Exceedance Routing Plan for surface water is found in **Appendix M**. This details where surface water would flow to on Site and where it would be stored in an extreme event.

Urban Creep

6.27 Urban Creep can be described as future urban expansion within a development such as extensions to buildings and paved gardens as the development matures. These activities increase the impermeable area of a site and often sit outside of the development control process. The development proposal for the site is for a commercial unit (Class E) and therefore it is understood that an Urban Creep sensitivity is not appropriate for this site and future urban expansion is unlikely.

Surface Water Runoff Quality

6.28 The NPPF states that the development should not have a detrimental impact on the environment, including the water environment. The technical guidance to the NPPF provides further advice on the benefits of ensuring runoff quality is to an appropriate standard.

6.29 The CIRIA SuDS Manual provides guidance on the treatment of surface water runoff. With regards to the parking areas and access road on the site, Table 7.2 of the CIRIA SuDS Manual rates the pollution hazard from non-residential car parking as 'medium'. To mitigate a 'medium' pollution hazard, the CIRIA SuDS Manual recommends using a simple index approach in line with Section 26.7.1. This is discussed, below.

6.30 Table 26.2 of the CIRIA SuDS Manual provides pollution hazard indices for different land use classifications. The land use classification that requires consideration for the site is in Table 6.2.

Table 6.2 – Excerpt from Table 26.2 of CIRIA SuDS Manual

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydro-Carbons
Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways.	Medium	0.7	0.6	0.7

6.31 To deliver adequate pollution treatment and mitigation, the CIRIA SuDS Manual recommends using a SuDS component that has a total pollution mitigation index (for each contaminant type) that equals or exceeds the pollution hazard index (for each contaminant type).

6.32 Table 26.3 of the CIRIA SuDS Manual provides indicative SuDS mitigation indices for each SuDS type. Table 6.3, below, which is an excerpt from Table 26.3, shows the mitigation index for permeable paving and the swale.

Table 6.3 – Excerpt from Table 26.3 of CIRIA SuDS Manual

Type of SuDS Component	Total Suspended Solids (TSS)	Metals	Hydro-Carbons
Permeable Paving	0.7	0.6	0.7
Swale	0.5	0.6	0.6

6.33 The mitigation indices for permeable pavements meets those of the highest pollution hazard index figures from Table 6.4.

6.34 The site will drain through permeable pavements and a swale before outfalling to the ditch, thus surface water will pass through two mitigation components.

6.35 Thus, the SuDS basin and swale when it has followed the permeable paviours will provide the below mitigation indices as in Table 6.5:

Table 6.4: Pollution Mitigation Indices for Secondary SuDS Feature (SuDS Basin)

Type of pollution removal component	Total Suspended Solids (TSS)	Metals	Hydro-Carbons
Swale	0.25 (0.5 ÷ 2)	0.3 (0.6 ÷ 2)	0.3 (0.6 ÷ 2)

6.36 And the total mitigation indices for the site is as per Table 6.6, below:

Table 6.5: Total Pollution Mitigation Offered by Permeable Paviours and SuDS Basin:

Contaminant Type	Pollution Hazard Index	Pollution Mitigation Index	Difference
Total Suspended Solids	0.7	0.95 (0.7 + 0.25)	+ 0.25
Metals	0.6	0.9 (0.6 + 0.3)	+ 0.30
Hydrocarbons	0.7	0.9 (0.6 + 0.3)	+ 0.20

6.37 The above evidence shows how the permeable paviours, the swale and SuDS Basin combine to ensure all pollution hazards are completely mitigated.

6.38 In addition, two oil separators have been included within the proposed drainage strategy: a full retention oil separator to treat surface water runoff from an oil storage area, and a bypass oil separator before the surface water is discharged into the ditch.

7.0 SuDS Maintenance Regime

7.1 This section describes the proposed management and schedules for the maintenance to reduce the risk of the proposed network flooding due to poor maintenance.

Piped Network Maintenance

7.2 The piped network shall be maintained by either Southern Water or an approved maintenance company in accordance with DCG and the manufacturer's guidance.

7.3 This maintenance schedule should include; clearing gullies, removing any large obstructions within the pipes and cleaning catchpits at regular intervals to ensure the correct operation of the sewer network.

Permeable Paving Maintenance

The proposed SuDS features are to have a routine maintenance schedule that conforms to CIRIA SuDS Manual (C753) 2015 guidance. An approved maintenance company is to adhere to the maintenance schedule provided in Tables 7.1, below, for permeable paving and attenuation tanks to ensure the correct operation and maintenance of the drainage system.

Table 7.1- Operation and maintenance requirements for permeable paving and attenuation tanks

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface).	Once a year, after autumn leaf fall, or reduced frequency as required, based on site specific observations of clogging or manufacturer's recommendations - pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment.
Occasional Maintenance	Stabilise and mow contributing and adjacent areas.	As required
	Removal of weeds or management using glyphospate applied directly into the weeds by an applicator rather than spraying.	As required - once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised within 50mm of the level of the paving.	As requires
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to structural performance or a hazard to users, and replace lost jointing material.	As required
	Rehabilitation of surface and upper substructure by remedial sweeping.	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for 3 months after installation.
	inspect for evidence of poor operation and/or weed growth - if required, take remedial action.	Three-monthly, 48h after large storms in first 6 months.
	Inspect silt accumulation rates and establish appropriate brushing frequencies.	Annually
	Monitor inspection chambers	Annually

8.0 Proposed Foul Water Drainage

8.1 The majority of the site roofs and hardstanding areas will drain to the surface water system. However, the proposed washdown area located in the northeast of the site corner will drain to the foul network due to an elevated surface water pollution risk. This ensures that heavy pollutants and hydrocarbons from washing vehicles will go to the foul sewer and not pollute the surface water system. A Drainage Strategy for the site can be found in **Appendix H**.

8.2 The peak foul flow rate from the proposed development has been based on the following assumptions as from Urban Drainage, Spon text, 3rd addition, David Butler and John W Davis.

8.3 The washdown area is made up of 106 m^2 of commercial. Therefore;
1,980 x 1.06 = 2,099 litres per day
2,099 / 86,400 = 0.02 litres per second

8.4 The calculated peak foul flow rate from the site is therefore 0.02 l/s.

8.5 The foul water system will be designed and constructed with the current Building Regulations, BS EN: 752 drainage and sewer systems outside buildings, the local authority building control specifications.

9.0 Summary and Conclusion

9.1 Motion has been commissioned by Dunmoore Group Ltd to undertake a Flood Risk Assessment (FRA) and Drainage Strategy in support of an outline planning application for an extension to the consented mixed used development in Billingshurst, West Sussex. This development will make up Phase 3 of the development site and is located to the south of the existing Phase 1 and 2 developments. The application consists of a Class E (industrial processes) unit, shown as unit 33.

9.2 A Drainage Strategy and SuDS Assessment for the Phase 1 and 2 development was undertaken by Motion in January 2019, as part of the original consented hybrid application. As this report is for a new outline planning application, it is intended to be a standalone report, however where necessary it takes into account the various applications and variations to the original consented hybrid application.

9.3 The site is existing agricultural land site made up of open fields. Therefore, the existing site can be described as greenfield.

9.4 The nearest watercourse to the site is an unnamed ditch (a tributary of the River Arun) which flows in a easterly direction along the site's southern boundary. The nearest main river to the site is the River Adur which is located 1km east of the site.

9.5 The EA's Flood Map for Planning shows that the entire site is located within Flood Zone 1 (less than 1 in 1000 annual probability of flooding from rivers or the sea).

9.6 The site is at low risk of groundwater flooding, infrastructure failure and of flooding from artificial sources. Both the JBA Comprehensive Flood Maps (CFM's) and the EA's Risk of Flooding from Surface Water maps show that the Site is not affected by surface water flooding.

9.7 Intrusive ground investigations (infiltration testing) were carried out for the phase 1 and 2 site in August 2018, which demonstrates that infiltration techniques are not considered possible on this site. As the phase 3 site is underlain by the same geology as phase 1 and 2 it is assumed that infiltration techniques will also not be possible on this site.

9.8 In order to attenuate surface water from development site it is proposed to have one attenuation tank on the south of the site which discharges into a swale on the southern boundary. The swale discharges into the ditch to the south of the site at a restricted rate of 6.4 l/s (the QBAR Greenfield runoff rate for the impermeable areas on site).. The attenuation tank will be 0.8m deep covering an area of 1,420m^2. In addition, permeable paving will be used for the parking courts. The permeable paving will be 450mm deep with 30% voids and will provide up to 196m^3 of attenuation.

9.9 In addition, a petrol interceptor to manage the surface water quality has been included before the surface water discharges into the ditch. Another petrol interceptor has been included to manage surface water runoff from the bin/skip/oil store.

9.10 The majority of the site will drain to the surface water system. However, the proposed washdown area located in the northeast of the site corner will drain to the foul network due to an elevated surface water pollution risk. This ensures that heavy pollutants and hydrocarbons from washing vehicles will go to the foul sewer and not pollute the surface water system.

9.11 As detailed in the 2024 Water Neutrality Report undertaken by Motion the development is proposed to have a rainwater harvesting system. The water captured by the rainwater harvesting system will be filtered and disinfected for potable water use, therefore it will be suitable for use in flushing toilets, wash hand basins and drinking. It is recommended that the tank size is greater than 12,000 litres to meet the daily demand.

9.12 This report demonstrates that the proposed development will not result in an increased risk of flooding on site or to neighbouring areas. Therefore, it can be concluded that the development fulfils the requirements of the PPG and the NPPF.

Appendix A

Proposed Site Layout



Notes:
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Drawn	Checked	CDM
Rev A:		
Rev B:		
Rev C:		
Rev D:		

P - Preliminary
A - for Approval
T - Tender
C - Construction

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ISO 9001 Certified

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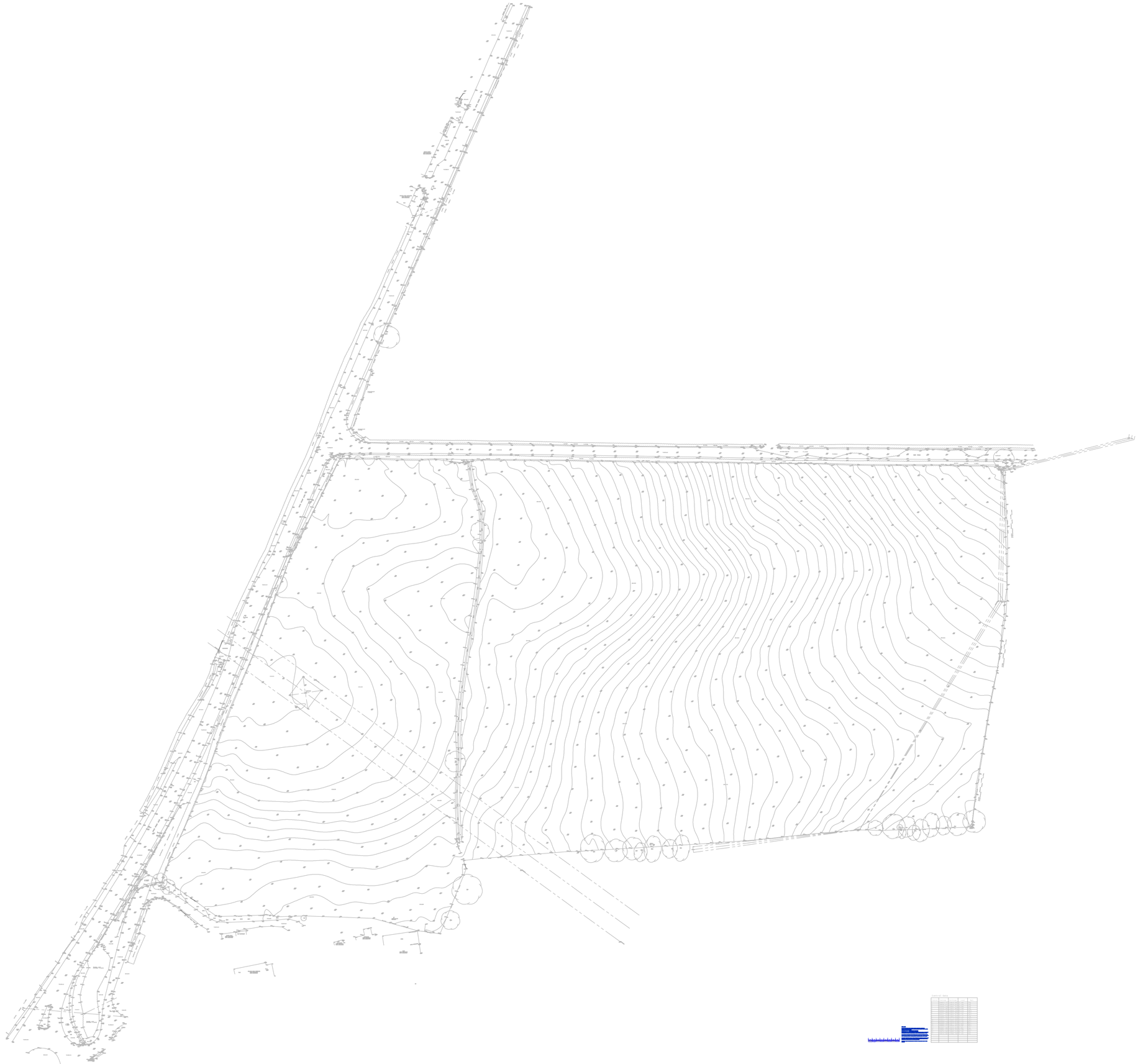
Job Title: Billingshurst Trade Park
Dunmore Group

Drg Title: Phase III Unit 1
Site Location Plan

Date: 6-2025
Scale: 1:2500 (A3)
Job No: D-101-Ph 3
Drg No: U1-SLP-01-C

Appendix B

Topographic Survey



Surveyed by: S Smith

Plotted by: S Brown

Drawn by: Acad

Legend

ACU	Air Conditioning Unit
AV	Air Valve
BC	Barrier Control
BOL	Bollard
BTB	British Telecom Junction Box
BTMH	British Telecom Manhole
CL	Cover Level
CTV	Cable TV
ELCP	Electricity Cable Pit
EM	Electricity Cable Marker
EP	Electricity Pole
ER	Earth Rod
FH	Fire Hydrant
FP	Flag Pole
G	Gully
GV	Gas Valve
IB	Illuminated Bollard
IL	Invert Level
JB	Junction Box
LB	Letter Box
LC	Lamp Column
MH	Manhole
MRK	Concrete Marker
O/F	Outfall
PM	Parking Meter
RE	Rodding Eye
RWP	Rainwater Pipe
SC	Stop Cock
SP	Sign Post
SV	Sluice Valve
TCB	Telephone Kiosk
TL	Traffic Light
TLC	Traffic Light Cover
TM	Ticket Machine
TP	Telegraph Pole
UTR	Unable To Raise
UTS	Unable To Survey
VC	Vent Column
WM	Water Meter
WO	Wash Out
WWP	Waste Water Pipe

Data

i) Trees shown thus 9/6x6/200 indicates Ht. in metres/Span. dia in metres Trunk dia. in millimetres

ii) Trees shown thus 9/6x6/200 indicates Ht. in metres/Span. dia in metres Trunk dia. in millimetres

iii) Grid : Metric and oriented to north

iv) Levels : Metric and based on OS GPS DATA

Situated on Survey station 1

Value: 47.355m

Client

MOTION

Site

HILLAND FARM
STANE STREET
BILLINGSHURST

Marvin & Partners Limited

Plestor House
Farnham Road
West Liss
Hampshire GU33 6JQ

Tel : 01428 751888
Email: paul@maplimited.com

Date	JULY 2018
Scale	1/200 @ A0
Dwg/Job No.	18/5131
Checked By	

Appendix C

BGS Borehole Records

N/S 301/11

TQ02/24 301/115

BILLINGSHURST. Sussex 23NE

From Topleys notes, where it is given as Pellingshurst

W.S.S.x. II, p. 159. 1911

From notes and specimens sent by Messrs. Tilley

Water at first stood 15½ feet down. Started falling when the boring was 60½ feet down and fell 19 feet down. When the hole was 80 feet deep stood at 52 feet down.

		Thickness	Depth.
Weald Clay	Sand	15	15
	Red clay	5	20
	Bluish sand clay	4	24
	Brown & red clay	10	34
	Bluish clay	6	40
	Yellow sandy clay	5	45
	Stiff yellow clay	5	50
	Blue clay	17	67
	Sandstone	½	67½
	Blue clay	32½	100.

? Sussex 6in. 23 NE. (E.) Site not traced in field survey.

S.C.A.H. 20.3.41.

301/115 Billingshurst. Site not determined N/S TQ02NE/19

W.S.Sx.II, p. 159. When bore less than 60½, R.W.L. 15½ down; bore 60½. R.W.L. 19 down; bore 80, R.W.L. 52 down. *Tilley, 1911.* TQ02/24

WC 100 100

301/115

		Thickness	Depth.
Weald Clay 100	Sand	15	15
	Red clay	5	20
	Bluish sandy clay	4	24
	Brown & red clay	10	34
	Bluish clay	6	40
	Yellow sandy clay	5	45
	Stiff yellow clay	5	50
	Blue clay	17	67
	Sandstone	½	67½
	Blue clay	32½	100.

British Geological Survey

301/115 Billingshurst. Site not determined N/S TQ02NE/

W.S.Sx.II, p. 159. When bore less than 60½, R.W.L. 15½ down; bore 60½. R.W.L. 19 d
bore 80, R.W.L. 52 down. *Tilley, 1911.* TQ02/2

WC 100 100

301/115

		Thickness	Depth.
Weald Clay 100	Sand	15	15
	Red clay	5	20
	Bluish sand clay	4	24
	Brown & red clay	10	34
	Bluish clay	6	40
	Yellow sandy clay	5	45
	Stiff yellow clay	5	50
	Blue clay	17	67
	Sandstone	½	67½
	Blue clay	32½	100.

British Geological Survey

1

NS 301/115

TQ02/24 301/115

BILLINGSHURST. Sussex 23NE/E

From Topleys notes, where it is given as Pillingshurst.

W.S.S.x. II, p. 159. 1911

From notes and specimens sent by Messrs. Tilley.

Water at first stood 15½ feet down. Started falling when the boring was 60½ feet down and fell to 19 feet down. When the hole was 80 feet deep it stood at 52 feet down.

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	Bluish clay	6	40
	Yellow sandy clay	5	45
	Stiff yellow clay	5	50
	Blue clay	17	67
	Sandstone	½	67½
	Blue clay	32½	100.

? Sussex 6in. 23 NE.(E) Site not traced in field survey.

S.C.G.H. 20.3.41.

? Possibly connected with old water-works — see note of MS notes on records

Appendix D

Infiltration Testing Results and Groundwater monitoring

Geo-Environmental

DESK STUDY REPORT

for

LAND OFF STANE STREET,

BILLINGSHURST,

WEST SUSSEX,

RH14 9HN

on behalf of

MOTION



Report:	**DESK STUDY REPORT**
Site:	**LAND OFF STANE STREET, BILLINGSHURST, WEST SUSSEX, RH14 9HN**
Client:	**MOTION**
Date:	**22/08/2018**
Reference:	**GE17451-DSR-AUG18**
Version:	**2.0**
Prepared by:	
	KATIE O'DEA BSc (Hons) MSc, FGS **CONSULTING ENGINEER**
Reviewed by:	
	GLYN EVANS B.Sc.,M.Sc., FGS.,P.G.Dip.,MIEnvSc **DIRECTOR**

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AMENDMENT RECORD

Revision ref.	Date	Reasons for amendment	Author's initials
1.0	21/08/2018	First issue	KO'D
2.0	22/08/2018	Updated to include reference to soakage testing carried out	SA

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FIGURE 1	Site Location Plan
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FIGURE 3	Conceptual Site Model

APPENDICES

APPENDIX A	Desk Study Information
APPENDIX B	Site Photographs

1.0 INTRODUCTION

1.1 General

Geo-Environmental Services Limited (Geo-Environmental) was instructed by Motion to undertake a Phase I desk study into the geotechnical and geo-environmental factors pertaining to the planned redevelopment of the land off Stane Street, Billingshurst, West Sussex, RH14 9HN herein referred to as 'the site'. The site's location is presented in Figure 1.

1.2 Form of Development

It is understood that the site is proposed to be developed for a commercial usage including a petrol filling station, hotel and other commercial units as well as areas of soft landscaping. Amenity space is also proposed.

1.3 Objectives

The investigation was to comprise a desk study of geotechnical and geo-environmental factors pertaining to the site, including a review of available historic maps and an examination of other available sources of geo-environmental information.

A preliminary Risk Assessment (PRA) was to be undertaken as part of the desk study in accordance with CLR11. The objective of the risk assessment was to evaluate plausible pollutant linkages with respect to the proposed development, adjacent land uses, and the wider environment, in the context of planning, immediate liabilities under the Environmental Protection Act 1990, and risks posed to Controlled Waters under the Water Resources Act.

1.4 Standards

Where practicable, the desk study was undertaken in accordance with the following documents and guidance:

- National Planning Policy Framework – March 2012;
- Planning Policy Statement 23 – Planning and Pollution Control;
- Model Procedures for the Management of Contaminated Land, CLR11, DEFRA and Environment Agency 2004;
- Environment Agency Guidance on Requirements for Land Contamination Reports, Version 1 dated July 2005;
- BS10175:2011+A1:2013 - Investigation of Potentially Contaminated Sites - Code of Practice, BSI 2013;
- BS5930: 2015 - Code of Practice for Site Investigations, BSI 2015;
- EN ISO 14688 Geotechnical Investigation and Testing Part 1-2002 and Part 2-2004;
- BS1377: 1990 - Soils for Civil Engineering Purposes, BSI1990;
- NHBC Standards Chapter 4.1 Land Quality - Managing Ground Conditions;
- NHBC Standards Chapter 4.2 Building Near Trees;
- CIRIA C665 – Assessing risks posed by hazardous ground gases to buildings (2007);
- NHBC 10627-R01(04)- Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present (2007);
- BS8485:2015 Code of practice for the characterisation and remediation from ground gas in affected developments;
- Department of Environment - Industry Profiles (1995 - 1996).

1.5 Conditions

The information collected from the desk study has been used to provide an interpretation of the geotechnical and environmental conditions pertaining to the site. The recommendations and opinions expressed in this report are based on the data obtained. Geo-Environmental takes no responsibility for conditions that have either not been revealed in the available records or that occur between or under points of any physical investigation. Whilst every effort has been made to interpret the conditions, such information is only indicative and liability cannot be accepted for its accuracy.

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2.0 DESK STUDY

The findings of the Phase I desk study are presented in the following section. A copy of the information obtained as part of the desk study is presented in Appendix A. Photographs taken during the site walkover survey are presented in Appendix B.

2.1 Site Description

The site comprised an irregularly shaped parcel of land which extended to c. 8.28Ha and was located at NGR 509230, 126730. A site walkover survey was undertaken on the 8th August 2018 to help inform the desk study.

The site comprised two open agricultural fields bounded by agricultural land to the north and west, a residential property and agricultural land east and a residential property, farm buildings and agricultural land to the south. A ditch was running in a north to south direction through the site separating the two fields and a mature tree was located adjacent to the centre of this ditch. Overhead electricity cables on pylons appear to cross the site. The site boundary comprises a number of wooden fences, hedges and shrubs and a number of semi-mature to mature trees along the eastern and southern boundaries.

2.2 Geology

British Geological Survey (BGS) geological mapping indicated the site to overlie the Weald Clay Formation, with no superficial deposits recorded on site. In addition, given that adjacent areas to the site have been developed it is considered likely that, in addition to these natural strata, Made Ground could possibly be present overlying these natural strata.

BS5930:2015 defines **Made Ground** as anthropogenic ground in which the material has been placed without engineering control and/or manufactured by man in some way, such as through crushing or washing, or arising from an industrial process. Great variations in material type, thickness and degree of compaction invariably occur and there can be deleterious or harmful matter, as well as potentially methanogenic organic material. In addition, on sites which have undergone several phases of historic development it is not uncommon for asbestos to be present within Made Ground soils.

The **Weald Clay** consists of shales and mudstones with occasional thin beds of siltstones, sandstone, shelly limestone and clay ironstone. When fresh, the beds are normally dark grey weathering to mottled yellow and brown near the surface or at outcrop. Bands of red clay occur within the bed, usually in association with the sandstone.

2.3 Hydrogeology

With reference to information provided by the Environment Agency, the site was indicated to mainly overlie an area of 'Unproductive Strata' in the bedrock. These are defined as rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

A portion of the north-west corner of the site was indicated to be located on a Bedrock Aquifer classified as a Secondary 'A' Aquifer. Secondary 'A' Aquifers are defined as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

According to information provided from the Environment Agency the site was not located within a groundwater

Source Protection Zone.

With reference to information provided by the BGS, the site was located outside of any area with potential for groundwater flooding of property situated below ground level and an area with potential for groundwater flooding to occur at the surface.

2.4 Hydrology

With reference to the Envirocheck dataset, the closest surface water feature was an unnamed pond located approximately 10m to the east of the site.

The site was located outside of any area affected by flooding from rivers or sea without defences.

No discharge consents were located within 500m of the site. Six discharge sites to controlled waters were located within 500m the site boundary, details of which are provided in Table 2.1 below:

Distance (m):	Property Type:	Location:	Date:	Discharge Type:	Receiving Water:
8 NW	Undefined Or Other	A29 London - Bognor Regis Road, Billingshurst, West Sussex	15th Nov 1972 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River
9 NW	Undefined Or Other	A29 London - Bognor Regis Road, Billingshurst, West Sussex	15th Nov 1972 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River
25 W	Undefined Or Other	A29 London - Bognor Regis Road, Billingshurst, West Sussex	15th Nov 1972 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River
28 W	Undefined Or Other	A29 London - Bognor Regis Road, Billingshurst, West Sussex	15th Nov 1972 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River
73 E	Domestic Property (Single) (Incl Farm House)	Hilland House New Road, Billinghurst, Horsham, West Sussex, RH14 9AA	7th Feb 2008 - Not Supplied	Sewage Discharges - Final/Treated Effluent - Not Water Company	Unnamed Ditch To River Adur
76 SW	Undefined Or Other	A29 London - Bognor Regis Road, Billingshurst, West Sussex	15th Nov 1972 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River
109 N	Undefined Or Other	A29 London - Bognor Regis Road, Between Manor House to Pratts Fa, North of Billingshurst, Billingshurst, West Sussex	15th Nov 1972 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River
114 W	Undefined Or Other	A29 London - Bognor Regis Road, Billingshurst, West Sussex	15th Nov 1972 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River
454 SW	Domestic Property (Single) (Incl Farm House)	Johnmar, Little East Street, Billingshurst, West Sussex, RH14 9PN	20th Sep 1997 - Not Supplied	Sewage Discharges - Final/Treated Effluent - Not Water Company	Freshwater River
464 SW	Construction Of Buildings	Development, Rowan Ave/Coombe Hill, Billingshurst, West Sussex	28th Jun 1968 - 31st Mar 1997	Discharge Of Other Matter-Surface Water	Freshwater River

Table 2.1 Discharge consents within 500m of the site

One pollution incidents to controlled waters were identified within a radius of 1000m of the site boundary:

- 29m SW, Environment Agency, Pollutant: General Biodegradable - Sewage Treated Effluent & Sewerage Material, Catchment area: Arun, Drainage Failures : Surface Water Sewer Failure, Receiving Water: Potential River, Category 3 (minor incident), 15/02/1999

2.5 Radon

The Envirocheck report states that the site lies in a lower probability radon area where less than 1% of homes are estimated to be at or above the Action Level as defined by Public Health England and the BGS. In addition, the BGS assessment states that no radon protective measures are required in the construction of new houses or extensions on the site.

2.6 Environmental Data

No Local Authority Pollution Prevention and Control authorisations were recorded within 1000m of the site.

The desk study identified four Contemporary Trade Directory entries within 500m of the site:

- 272 SW, Bora Bora Swimwear, Clothing & Fabrics – Manufacturers, Inactive;
- 415 SW, Crystal Clean Carpet Cleaning Co., Carpet, Curtain & Upholstery Cleaners, Inactive;
- 461 SW, Roman Way Garage, Garage Services, Inactive;
- 485 SW, Mr Clean, Carpet, Curtain & Upholstery Cleaners, Inactive.

The closest operational fuel station was Roman Way Garage identified 462m to the south-west of the site.

Searches of other various environmental databases were made as part of the desk study, including air pollution control sites, Part IIA contaminated land, Integrated Pollution Control (IPC) and Integrated Pollution Prevention and Control (IPPC) sites, registered radioactive substances, COMAH sites, explosives sites, Notification of Installations Handling Hazardous Substances (NIHHS) sites, planning permissions for sites involving hazardous substances and fuel station registers. Additional detail is referenced in Appendix A.

2.7 Soil Chemistry

Data obtained as part of the desk study provides details on the estimated soil chemistry for the natural soils on site and in the vicinity of the site. The estimated soil quality on the subject site is presented Table 2.2.

Contaminant	Estimated Concentration
Arsenic	15 – 25 mg/kg
Cadmium	<1.8 mg/kg
Chromium	60-90 mg/kg
Lead	<100 mg/kg
Nickel	15-30 mg/kg

Table 2.2 Estimated soil chemical concentrations on site

The natural background concentrations for Arsenic, Cadmium, Chromium and Nickel were below respective published Suitable for Use Levels, Generic Assessment Criteria and Category 4 Screening Levels for the protection of human health under a residential land use (with home grown produce), i.e. the most conservative end use.

However these values are not necessarily representative of the site's soil chemistry and do not account for the potential presence of any Made Ground soils or historic site uses. Furthermore, some screening criteria are dependent on pH and soil organic matter content. Therefore, concentrations of specific determinants and the utilised S4UL/GAC/C4SL cannot be determined without site specific investigation and analysis.

2.8 Sensitive Land Uses

A search was made of environmentally sensitive areas including local and national nature reserves, areas of outstanding natural beauty (AONBs), Ramsar sites, sites of special scientific interest (SSSIs), conservation areas, special protection areas and biosphere reserves. Details of the environmentally sensitive areas identified within 500m of the site boundary are outlined below:

- Ancient Woodland, Name not Supplied, 89m NW;
- Ancient Woodland, Name not Supplied, 456m W.

According to the Envirocheck data set, the site lies within a surface water Nitrate Vulnerable Zone as defined by the Department for Environment, Food and Rural Affairs (DEFRA). Nitrate Vulnerable Zones (NVZ) are designated areas of land draining into waters polluted by nitrates from agriculture. The identified site is the River Arun (U/S Pallingham) NVZ, Surface Water.

2.9 Geotechnical Data

The site was located within an area considered by the Coal Authority as being in an area that might not be affected by coal mining.

National databases for a number of different geological hazards have been compiled by the BGS, and a summary of the hazard data pertaining to the site itself is presented in Table 2.3.

Hazard	Designation
Non-coal mining	Highly Unlikely
Collapsible ground	Very Low
Compressible ground	No Hazard
Ground dissolution	No Hazard
Landslide	Very Low
Running sand	No Hazard
Shrinking and Swelling clay	Low Hazard

Table 2.3 Summary of BGS geological hazards

2.10 Landfill and Waste Management Facilities

A search of BGS recorded landfill sites, IPC registered waste sites, licensed waste management facilities, local authority recorded landfill sites, other registered landfill sites, waste transfer stations and other waste treatment or disposal sites was undertaken as part of the desk study. Such sites may form an artificial source of ground gases, such as carbon dioxide and methane, where wastes are buried or disposed of to landfill. Three such landfill sites were recorded within 1 km of the site boundary:

- Wooddale Lane, Historical Landfill Site, Billingshurst, Sussex, First input: 31st December 1960, last input, 31st December 1965, 606m SE;
- Wooddale Road, Billingshurst, Local Authority Recorded Landfill Sites, 714m SE;

- Wood Dale Road, Billingshurst, Local Authority Recorded Landfill Sites, Types of Waste: Household, Commercial, 714m SE

There are two records of potentially infilled land (water) within 1000m:

- Mapping date 1898, unknown filled ground (pond, marsh, stream, river, dock, etc.), 551m NE;
- Mapping date 1913, unknown filled ground (pond, marsh, stream, river, dock, etc.), 583m E;
- Mapping date 1961, unknown filled ground (pond, marsh, stream, river, dock, etc.), 713m N.

2.11 Historic Mapping

Historic maps dating back to 1876 were obtained as part of the desk study. A summary of the apparent key features observed on the map extracts both on the site and within the local area is presented within Table 2.4.

Date	On Site	Off Site
1876	The site comprised two open fields. A number of trees are mapped along the southern boundary of the site.	The wider vicinity of the site was shown predominantly to comprise open fields with areas of coniferous and non-coniferous forestry. Hill-land Barn and Hill Land farm and residential building were located c. 50m south-west of the site. An area of non-coniferous and coniferous trees was located c. 150m N and an area with scattered patches of coniferous trees was located c. 50m N of the site boundary. Pratt's Farm was located c. 120m N. An unnamed water feature was located c. 10m east of the site. A well was located c. 85m N of the site.
1879-1880	No significant changes indicated.	The built up Billingshurst area was mapped c. 500m to 1000m S of the site boundary and comprised residential buildings, post office, a school, church, graveyard, chapels, a corn mill and a number of wells. A number of farms were also located within the built up Billingshurst area. Somers Place and Summer House estate was located c. 350m N of the site. The River Adur was mapped c. 920m E of the site and was shown to be flowing in a southerly direction. A River was mapped c. 920m E of the site. A number of Farms were located in the area including Wooddale Farm c. 580m SE and Menzieswood Farm c. 610m NW. Two areas of cut ground (landscaped) were located c. 580m NE of the site boundary.
1897	No significant changes indicated.	A well was mapped c. 60m SW of the site boundary. The well (c. 85m N on 1876 map) was no longer mapped and a tank was mapped in its place. The area of non-coniferous and coniferous trees (c. 150m N on 1876 map) and the area with scattered patches of coniferous

Date	On Site	Off Site
		trees (c. 50m N on the 1876 map) were mapped as areas of mixed wood.
1898	No significant changes indicated.	A spring was mapped c. 470m SE of the site boundary. A brewery was mapped c. 570m SW of the site boundary. Home Farm was mapped c. 530m NE of the site. The river (c. 920m E on 1879-1880 map) was mapped as the River Adur and was shown to be flowing in a southerly direction. The two areas of cut ground (c. 580m NE on the 1879-1880 map) were mapped as fish ponds.
1911-1912	No significant changes indicated.	The road running north to south adjacent to the western boundary of the site was mapped as Stane Street (Roman Road). The area of mixed wood (c. 150m N on the 1897 map) was mapped and Church Wood and the area of mixed wood (c. 50m N on the 1897 map) was mapped as Friskeys. A tank was mapped c. 15m N of the site boundary.
1913-1914	No significant changes indicated.	A reservoir for the North Sussex Gas & Water Co. was mapped c. 780m S of the site boundary. A tank was mapped c. 660m SW of the site boundary.
1913	Mapping incomplete. No significant changes indicated.	Mapping incomplete. Tanks were mapped c. 580m N, c. 550m NE by Home Farm and c. 220m N by Summers Place.
1939	Mapping incomplete. No significant changes indicated.	Mapping incomplete. No significant changes indicated.
1947 (aerial)	No significant changes indicated.	No significant changes indicated.
1952	Mapping incomplete.	Mapping incomplete. The brewery (c. 570m SW, 1898 map) and the tank (c. 660m SW on 1913 - 1914 map) were no longer mapped. Some residential development was shown to have occurred in the built up area of Billingshurst. Menzieswood Farm (c. 610m NW on 1879-1880 map) was mapped as Wynstrode.
1961	No significant changes indicated.	Residential development was shown c. 380 to c. 980m SW of the site in the built up area of Billingshurst. Wynstrode Farm (c. 610m NW on 1952 map) was shown to have undergone development with a number of new farm buildings mapped. Summers Place (c. 350m N on 1879-1880 map) was mapped as a convent.
1971-1972z	A pylon was mapped in the western area of the site and the electricity lines were running NW to SE through the site.	A number of residential and farm buildings were shown to have been developed within the Hill Land farm area c. 50m S of the site and the buildings were renamed as Old Hilland Farm and Hilland Farm. A number of buildings also

Date	On Site	Off Site
		mapped as Hilland farm and associated access road were developed c. 40m E of the site boundary. The areas c. 10m N and NE of the site were mapped as orchards. The tank (15m on the 1911-1912 map) was no longer mapped. A strip of land immediately east of the site was mapped as non-coniferous trees.
1973	No significant changes indicated.	No significant changes indicated.
1974	Incomplete mapping. No significant changes indicated.	Incomplete mapping. No significant changes indicated.
1975	No significant changes indicated.	Significant residential development was shown to have occurred within the built up area of Billingshurst. One of the fish ponds (c. 580m NE on 1898 map) was no longer mapped. Wynstrode Farm (c. 610m NW 1952 map) was shown to have undergone further development with a number of new farm buildings mapped. Tisseran Piggeries and Tisseran Farm were mapped c. 950m N of the site.
1977	Incomplete mapping. No significant changes indicated.	Incomplete mapping. No significant changes indicated.
1982	Incomplete mapping. No significant changes indicated.	Incomplete mapping. No significant changes indicated.
1991	Incomplete mapping. No significant changes indicated.	Incomplete mapping. No significant changes indicated.
1993	No significant changes indicated.	No significant changes indicated.
1996	Mapping incomplete. No significant changes indicated.	Redevelopment of buildings was shown to have occurred within the Hilland Farm area (c. 50m S of the site) and an access road was shown to have been constructed.
1996	Incomplete mapping. No significant changes indicated.	Incomplete mapping. No significant changes indicated.
1999 (aerial)	No significant changes indicated.	A roundabout and road were shown to have been constructed c. 110m SW of the site providing a new access route to Hilland Farm.
2000	No significant changes indicated.	Residential development was shown to have occurred within the built up area of Billingshurst c. 350m S of the site. A drain containing water was shown to be flowing in a westerly direction from c. 30m W of the site and extending to over 1000m W of the site. Wynstrode Farm buildings (c. 610m NW 1952 map) have been mapped as Wynstrode Farm, Little Wynstrode Farm, Denver Poultry Farm and Chalk Farm.
2006	No significant changes indicated.	Further residential development was shown to have occurred within the built up area of Billingshurst c. 250m S of the site. The A29 road and associated roundabouts were shown to

Date	On Site	Off Site
		have been developed around the west side of Billingshurst town. The orchard 10m N of the site (1972 map) was mapped as an open field.
2017	No significant changes indicated.	Further residential development was shown to have occurred within the built up area of Billingshurst c. 200m S of the site. The orchard 10m NE of the site (1972 map) was mapped as an open field.

Table 2.4 Summary of Historic Map extracts

Historic mapping has shown that the site has comprised open field used as farmland for the duration of the mapping period (1876 to present).

The surrounding land comprised mainly open space, agricultural land, forestry and orchards and gradually became developed for residential and commercial purposes to the south, with scattered residential properties to the north and east. Facilities including schools, churches, a graveyard, fuel station and brewery were located within the built up Billingshurst town area to the south.

2.12 Asbestos

It is considered possible that asbestos containing materials (ACM) could be present within the site given the sites proximity to developed land. In line with current best practice, asbestos and ACM should be assumed to be present until proven otherwise.

In addition, given that land adjacent to the site has undergone development, the presence of asbestos within any Made Ground soils cannot be ruled out.

2.13 Previous Ground Investigations

Geo-Environmental undertook soakage testing at the site in August 2018 (report ref. GE17451/KOD01/180810). Soakage tests were carried out in broad accordance with BRE365 at seven locations across the site. The investigation revealed ground conditions comprising Topsoil overlying variously silty, silty sandy or sandy clays of the Weald Clay Formation. None of the soakage tests drained sufficiently to calculate a rate of infiltration.

There were no BGS borehole records within the immediate vicinity of the site. Four borehole records located approximately 650m south of the site reported the presence of interbedded clays, sand, sandstone, shale and marls with underlying flint gravel and silty fine sand, inferred by the BGS to be indicative of the Weald Clay.

2.14 Potential Contamination

No potentially contaminative activities have been identified on the site. An obsolete petrol filling station (PFS) was identified 462m SW of the site, albeit with the land between the subject site and the PFS comprising residential use and thus gross soil based contamination from the PFS impacting the subject site would be considered highly unlikely. An orchard was located 10m N and NE of the site. Orchards could pose a risk of contaminants contained within pesticides and fertilisers such as organophosphates and organochlorides. Elevated concentrations of contaminants of concern could potentially be present within any Made Ground and natural soils underlying the site given the site has been developed and also accounting for the BGS Soil Geochemistry data. In addition it is possible that the surrounding land uses may have resulted in the deposition of airborne contaminants on the surface and shallow soils on site including heavy metals, organic pollutants such as Polyaromatic hydrocarbons

(PAH), petroleum hydrocarbons/oils), inorganic compounds. Testing would be recommended to verify the actual concentrations of these substances within the near surface soils.

2.15 Ground Gas and Vapour Summary

No landfills (potential source of hazardous ground gas) were identified within 500m of the subject site. The closest landfill was a historical landfill 606m SE at Wooddale Lane, Billingshurst and the last input of waste was in December 1965. Also, an area of unknown filled ground (water) was located 551m NE from the site.

Given that residential land uses were present between the subject site and the PFS (c. 462m to the south-west) and the fact that the PFS is obsolete, the possible presence of in-ground vapour hazard associated with the PFS is considered unlikely.

3.0 PRELIMINARY ASSESSMENT

Based on the findings of the desk study, the following sections summarise the anticipated geotechnical and environmental factors likely to impact the site.

3.1 Geotechnical Risk Assessment

3.1.1 Potential Geotechnical Issues

The following factors that might impact the geotechnical condition of the site were identified as part of the desk study:

- The possible presence of Made Ground (e.g. varying depth and/or composition) which if encountered may affect the foundation design and construction.
- The presence of laterally and vertically variable strata, and the impact these could have on further construction.
- The suitability of shallow soils as a bearing stratum for conventional foundations.
- Consideration of the volume change potential of any cohesive soils and the affect this could have on foundations.
- The possible presence of shallow groundwater beneath the site.
- The potential for groundwater flooding, both at the surface and below ground level, to occur at the site.

3.2 Preliminary Environmental Conceptual Site Model & Risk Assessment

3.2.1 Methodology

A Preliminary Risk Assessment ('PRA') and Conceptual Site Model ('CSM'), see Figure 3, have been prepared in accordance with CLR11 based on information obtained as part of the desk study. Possible risks associated with potential sources of contamination and sensitive receptors identified have been qualitatively assessed following a source-pathway-receptor ('Pollutant Linkage') approach in accordance with current UK protocols.

A risk of harm may only exist where a plausible pollutant linkage is present, and where the quantity or concentration of a contaminant is sufficient so as to pose harm. Under the statutory definition, "Contamination" may only strictly exist where contaminants pose a risk of harm to a receptor. The risk classification has been assessed in accordance with CIRIA C552 (Rudland et al., 2001). A summary of how the risks are derived and their definitions are presented in Tables 3.1 and 3.2.

		Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High Likelihood**	Very high risk	High risk	Moderate risk	Moderate/low risk
	Likely	High risk	Moderate risk	Moderate/low risk	Low risk
	Low Likelihood	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

Table 3.1 Risk ratings matrix

Risk Rating	**Definitions**
Very high risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not already undertaken) and remediation are likely to be required.
High risk	Harm is likely to arise to a designated receptor from an identified hazard Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not already undertaken) is required and remediation works may be necessary in the short term and are likely over the longer term.
Moderate risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.
Moderate to low risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is unlikely that any such harm would be severe, or if any harm were to occur it is probable that the harm would be relatively mild.
Low risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very low risk	There is low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Table 3.2 Risk rating definitions

3.2.2 Summary of Plausible Sources

Possible sources of contamination identified from the desk study are summarised in Table 3.3. As noted in Section 2.14, a petrol filling station (PFS) was located c. 462m to the west of the site, with land between comprising residential use. In addition, the PFS was located in an area of relatively lower elevation than the subject site. Given that contaminants generally follow the natural topography, hazardous ground gases or vapours would likely move in the opposite direction to the site. Therefore, this was not considered to represent a plausible source for hazardous ground gas and thus has not been considered further within this assessment.

Source	Description	Contaminants
Made Ground and shallow soils	The general quality of Made Ground and shallow soils could be impacted by the presence of contamination from the adjacent built up area of residential and farm building. In addition, the general quality of the shallow soils (and Made Ground if encountered) could be impacted by the presence of contamination as a result of aerial deposition on site.	Possible elevated concentrations of metals, metalloids, TPH and PAH compounds, sulphate and asbestos in Made Ground (if present).
Asbestos Containing Materials within shallow soils	There is a likelihood that residential buildings and farm buildings located adjacent to the site could have been constructed using asbestos containing materials. Consequently, the potential presence of asbestos in the near surface soils cannot be discounted.	Asbestos.
Off-site sources of potential contamination	An orchard was located 10m N and NE of the site. Orchards could pose a risk of contaminants contained within pesticides and fertilisers such as organophosphates and organochlorides and heavy metals.	Possible elevated concentrations of organophosphates and organochlorides.

Table 3.3 Possible sources of contamination

3.2.3 Summary of Plausible Pathways

The plausible pathways are summarised in Table 3.4. These pathways are based on the proposed end use of commercial usage including a petrol filling station, hotel and other commercial units as well as areas of soft landscaping. Amenity space is also proposed.

Pathway	Description
Direct Contact	Ingestion of soil particles, inhalation of soil derived dust (including tracked back dust), dermal contact.
Inhalation	Inhalation of soil dust both inside and outside of buildings.
	Inhalation of ground gas/vapours within buildings.
Vertical & Lateral Migration	Contaminant movement both vertically through leaching/gravity and horizontally along preferential pathways, e.g. services trenches, more permeable strata or with groundwater.

Pathway	Description
Shallow Groundwater	Shallow groundwater or perched water may be present within the Made Ground or underlying bedrock geology which could result in the vertical and lateral migration of contaminants.
Chemical Attack	Attack of buried plastics and concrete by aggressive ground conditions.
Root Uptake	Uptake of soil and waterborne contaminants by plants.

Table 3.4 Possible contamination pathways

3.2.4 Summary of Plausible Receptors

Potential receptors associated with the site and its development are summarised in Table 3.5.

Receptor	Description	Comments
End Users	Employees/visitors of the proposed development.	The proposed development is for commercial usage including a petrol filling station, hotel and other commercial units as well as areas of soft landscaping. Amenity space is also proposed.
Soft Landscaping	Possible areas of planting including lawns, shrubs, trees, etc.	Soft landscaped areas are likely to comprise of managed gardens.
Built Environment	Buried concrete for foundations and plastics for potable water supply pipes may be laid in contact with contaminated soils.	Aggressive ground conditions and depths of Made Ground may be present beneath the site.
Adjacent Land Users	Sensitive land uses identified within the immediate vicinity.	Adjacent land use is primarily agricultural with some residential land use.
Groundwater	Controlled waters contained within the aquifer(s) beneath the site.	The north-west portion of the site overlies a Secondary 'A' Aquifer.
Surface Water	Controlled Waters within lakes, rivers, and ponds, etc., or coastal waters.	No surface water was identified on site. The nearest surface water feature identified was an unnamed pond located approximately 10m to the east of the site.
Ecological Receptors	Sensitive areas of ecological significance.	Two areas of Ancient Woodland were located within 1000m of the site boundary- 89m NW and 456m W.

Table 3.5 Possible receptors of contamination

Site workers involved in the preparation and construction of the development have not been considered further in this assessment as the Principal Contractor is duty bound under the current CDM Regulations to undertake their own risk assessments with respect to their employees.

Whilst the above sources and receptors have been identified, Table 3.6 summarises the identified plausible pollution linkages and a qualitative assessment of the risks based on the desk study research.

Potential Source/media	Potential Receptors	Potential Pathways	Likelihood	Severity	Risk and Justification
Contaminants (including potential ACM's) within Made Ground (If present) & Shallow Natural Ground (aerial deposition)	End users	Direct contact	Likely	Mild	**Moderate to Low** End users are likely to come into contact with soils via direct contact in areas of soft landscaping. However limited areas of landscaping is proposed and would likely be completed with uncontaminated soils in the near surface root zone. The consequence is likely to be mild.
	Soft Landscaping	Root Uptake	Likely	Minor	**Low** Limited areas of soft landscaping are proposed. However, no evidence of harm to existing plant life was identified.
	Adjacent land users	Direct contact	Unlikely	Minor	**Very Low** Adjacent site users are unlikely to come into contact with soils. The consequence is likely to be minor.
	Water supply pipes	Direct contact	Likely	Mild	**Moderate to Low** Water supply pipes could come into contact with impacted soils depending upon depth of installation and extent of any soil impact. Barrier pipe may be required.
	Buildings and infrastructure	Direct contact	Unlikely	Mild	**Very Low** Foundations and utilities will be placed within potentially aggressive soils. However the consequence is anticipated to be minor.
	Groundwater	Vertical migration	Unlikely	Medium	**Low** Shallow, continuous groundwater (<5m bgl) is unlikely to be present. The strata beneath the north-west area of the site are classified as a Secondary 'A' Aquifer with the rest of the site classified and an Unproductive Strata. Fluctuations in groundwater levels are likely and could result in migration of mobile contaminants. However, given that site wide Made Ground or soil based impact is unlikely, the risk of harm to groundwater from Made Ground could be limited. Shallow groundwater (if present) is presumed to flow in a south-westerly direction, i.e. with topography.
Off-site sources (orchards c. 10m N and NE)	End users	Groundwater flow	Unlikely	Mild	**Very Low** End users are unlikely to come into contact with impacted groundwater due to the proposed end use and anticipated depth of groundwater. However, shallow groundwater (if present) and any associated contamination plume is presumed most likely to the flow across the site from the orchards downgradient towards the site. The consequence is likely to be mild.

Potential Source/media	Potential Receptors	Potential Pathways	Likelihood	Severity	Risk and Justification
	End Users	Direct contact	Likely	Minor	**Low** End users are likely to come into contact with soils via direct contact in areas of soft landscaping. However landscaping would be completed with uncontaminated soils in the near surface root zone. The consequence is likely to be minor.
	Adjacent land users	Direct contact	Likely	Minor	**Low** Adjacent site users may to come into contact with soils within areas of proposed soft landscaping. However any landscaped areas would also be completed with uncontaminated soils in the near surface root zone. The consequence is likely to be minor.
	Water supply pipes	Direct contact	Likely	Mild	**Moderate to Low** Water supply pipes could come into contact with impacted soils depending upon depth of installation and extent of any soil impact. Barrier pipe may be required.
	Soft Landscaping	Root Uptake	Unlikely	Minor	**Very Low** Areas of soft landscaping are proposed. However, no evidence of harm to existing plant life was identified for the current site condition.

Table 3.6 Plausible pollutant linkages & qualitative risk assessment

3.3 Preliminary Risk Assessment Summary

The Preliminary Risk Assessment (PRA) and Conceptual Site Model (CSM) developed from the information gathered as part of the desk study process have identified plausible potential pollutant linkages that exist in relation to the proposed redevelopment of the site. Based on the CSM the site has been classified as being of very low to moderate risk with an overall risk rating of low.

The potential pollutant linkages established within this desk study are not considered to prevent development on the subject site, but could require investigation and assessment to support further characterisation, calibration of the CSM and where/if necessary determine a remedial strategy to reduce, remove or otherwise control any risk within the site to key receptors.

In order to progress this assessment in line with the National Planning Policy Framework, to provide further characterisation of the site and refinement of the PRA and CSM, it is recommended that intrusive investigation and associated testing is undertaken to confirm the findings of the desk study report and to provide a robust risk assessment for the site and proposed redevelopment. As such it is recommended that geochemical and geotechnical investigation be carried out on the site to include analysis of soil and groundwater (if encountered) samples for the range of potential contaminants identified within the desk study.

3.4 Preliminary Geotechnical Assessment Summary

The site is anticipated to be underlain by potential Made Ground over the Weald Clay.

Given the anticipated underlying ground conditions, it is considered likely that shrinkable soils could be present beneath the site and thus volume change potential should be considered in the foundation design.

The foundation design would need to account for the presence of trees and hedgerows on the site boundary as well as planned locations of trees as proposed in the site plan. This could require the localised deepening of foundations, or possibly a requirement for piled foundations.

If shallow groundwater is present this might impact on the constructability of conventional foundations, e.g. sacrificial shuttering and groundwater control may be required.

An intrusive investigation will be required in due course in order to inform the design process. In addition, a tree survey will be required in order to confirm the species, condition etc of the trees and hedges present. This would then be used to inform the foundation assessment.

Soakage testing undertaken at the site recorded very low or negligible rates of infiltration. As such, It is unlikely that soakaways will function on this site due to the presence of relatively impermeable Weald Clay. It may be necessary to utilise on-site storage and attenuation of peak storm flow, through systems such as porous paving and cellular storage crates.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

It is concluded that there is a potential for localised contamination to exist at the site due to its nearby historic uses, and that this could influence the proposed development. Whilst the individual risk ratings for the potential pollutant linkages identified ranged from moderate to low to very low, further assessment is likely to be required to better characterise contamination on site as a result of current and historical land uses and the associated risk to identified receptors.

It is possible that conventional foundations would be suitable for the proposed development, although this is subject to confirmation following intrusive investigation. It may be prudent to assume that piled foundations could be required due to the presence of shrinkable soils and influence of trees (retained, removed or proposed).

It is understood that the site is proposed to be developed for a commercial usage including a petrol filling station, hotel and other commercial units as well as areas of soft landscaping. Amenity space is also proposed. Depending on the outcome of an intrusive investigation, it is possible that risk mitigation measures could be required including removal of Made Ground, remediation of soils and groundwater impacted by contaminants, localised soil removal, construction of a soil cover system in soft landscaped areas.

4.2 Recommendations

At this stage and based on the findings of the desk study and preliminary risk assessment, the following scope of works is recommended for the intrusive investigation on the site.

- Intrusive investigation works including targeted investigation of potential contamination sources should be carried out in order to clarify the geotechnical and geo-environmental issues pertaining to redevelopment of the site.
- In-situ CBR probing in the proposed car parks and access roads.
- Soil and groundwater (if encountered) sampling and analysis should be undertaken to inform subsequent geotechnical and geo-environmental risk assessment.
- Installation and monitoring of ground gas wells on a single occasion to confirmed perceived low risk.
- Laboratory analysis, on soil samples recovered from the exploratory holes for a range of geotechnical parameters to support foundation design and the like.
- Laboratory analysis, on shallow soil samples and groundwater samples recovered from the exploratory holes, for an analytical suite to include the potential contaminants identified within the desk study and encountered during any intrusive investigation. The suite should include commonly occurring metals, non-metals, asbestos, TPH, and PAH compounds.
- Waste Acceptance Criteria testing may be required if surplus spoil is to be disposed of from the development.

It may be necessary to undertake remediation/risk mitigation measures on this site in localised areas to break any identified pollutant linkages and thus protect key receptors such as human health, controlled waters, built environment, soft landscaping and the like. The requirement and extent of any such remediation cannot be determined until such time as an intrusive investigation and associated testing has been completed but could include soil and groundwater remediation, gas/vapour protection measures, barrier pipe and soil cover systems in gardens.

Figures



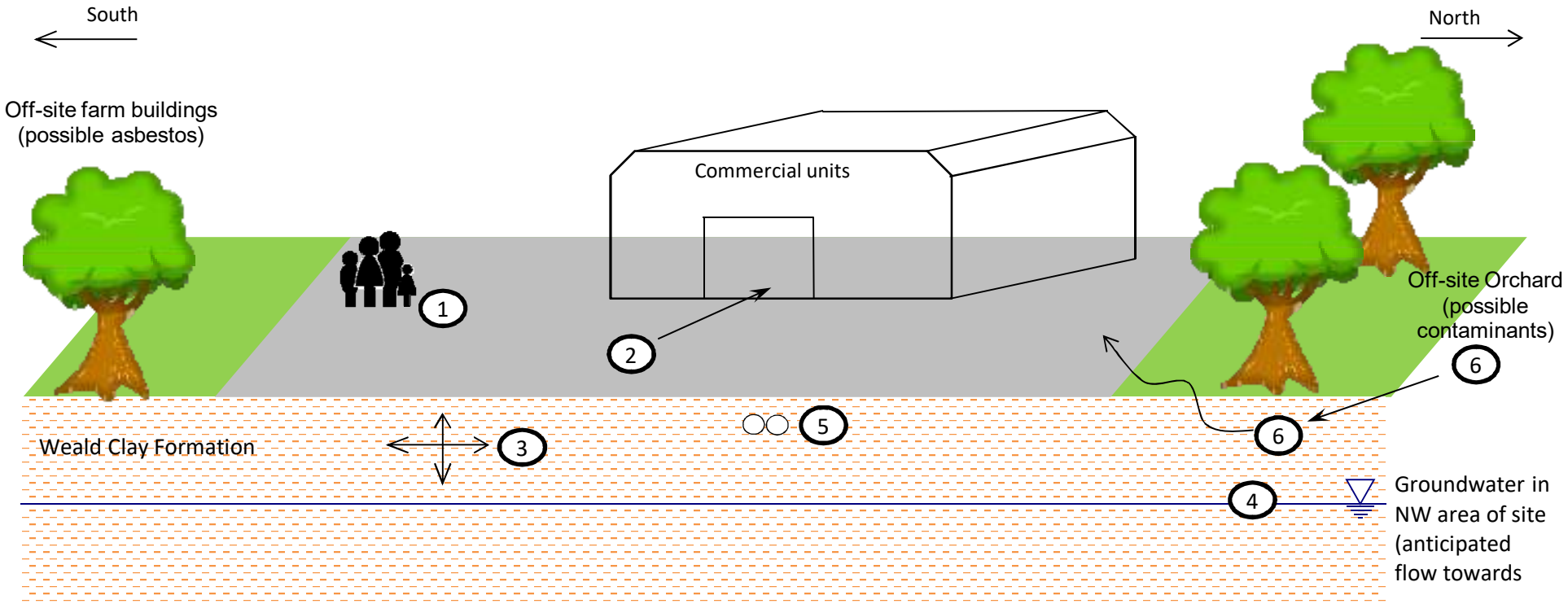
Project:	Land off Stane Street, Billingshurst			**Title**	Site Location Plan
Client:	Motion			**Geo-Environmental Services Ltd**	
Ref No:	GE17451	**Revision:**	0	**Unit 7 Danworth Farm, Cuckfield Road**	
Drawn:	KOD	**Date:**	09/08/2018	**Hurstpierpoint, West Sussex BN6 9GL**	
Figure:	1	**Scale:**	Not To Scale	**+44(0)1273 832972 www.gesl.net**	Geo-Environmental



Project:	Land off Stane Street, Billingshurst			**Title**	Proposed Layout Plan
Client:	Motion			**Geo-Environmental Services Ltd** **Unit 7 Danworth Farm, Cuckfield Road** **Hurstpierpoint, West Sussex BN6 9GL** **+44(0)1273 832972 www.gesl.net**	Geo-Environmental
Ref No:	GE17451	**Revision:**	0		
Drawn:	SA	**Date:**	21/08/2018		
Figure:	2	**Scale:**	Not To Scale		

Possible Pollutant Linkages:

1. Direct contact with contaminated soils, ingestion of contaminated soils
2. Inhaltion of soil dusts indoor and outdoor, and inhaltion of gases/vapours within buildings
3. Vertical and lateral migration through permeable layers within the clay and with groundwater
4. Shallow groundwater vertical and lateral migration
5. Chemical attack of buried plastics and concrete



Project:	Land off Stane Street, Billingshurst			**Title**	Conceptual Site Model (for proposed commercial units and soft landscaping)
Client:	Motion			**Geo-Environmental Services Ltd**	
Ref No:	GE17451	**Revision:**	0	**Unit 7 Danworth Farm, Cuckfield Road**	
Drawn:	KOD	**Date:**	21/08/2018	**Hurstpierpoint, West Sussex BN6 9GL**	
Figure:	3	**Scale:**	Not To Scale	**+44(0)1273 832972 www.gesl.net**	Geo-Environmental

Geo-Environmental

APPENDIX A

Desk Study Information



Geo-Environmental

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
175723966_1_1

Customer Reference:
GE17451

National Grid Reference:
509230, 126730

Slice:
A

Site Area (Ha):
8.28

Search Buffer (m):
1000

Site Details:

Hilland Farm, Stane Street
BILLINGSHURST
RH14 9HN

Client Details:

Ms K O'Dea
Geo Environmental Services Ltd
Unit 7 Danworth Farm
Cuckfield Road
Hurstpierpoint
West Sussex
BN6 9GL

Geo-Environmental

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	14
Hazardous Substances	-
Geological	15
Industrial Land Use	17
Sensitive Land Use	20
Data Currency	21
Data Suppliers	26
Useful Contacts	27

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/Natural Resources Wales 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.

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Report Version v53.0

Geo-Environmental

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility					n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		8	2	25
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
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					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 9		Yes		
Pollution Incidents to Controlled Waters	pg 9		1		
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions					
Water Industry Act Referrals					
Groundwater Vulnerability	pg 9	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 10		3	1	29

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 14				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 14	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 14				2
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)	pg 14				3
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Geo-Environmental

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 15	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 15	Yes			Yes
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 15	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 15	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 15	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards				n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 15	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 17			4	16
Fuel Station Entries	pg 18			1	
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 18		1		6
Points of Interest - Public Infrastructure	pg 19			1	1
Points of Interest - Recreational and Environmental	pg 19			2	3
Gas Pipelines					
Underground Electrical Cables					

Geo-Environmental

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 20		1	1	8
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 20	1			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: West Sussex County Council Property Type: Undefined Or Other Location: A29 London - Bognor Regis Road, Between Manor House To Pratts Fa, North Of Billingshurst, , Billingshurs,West Susse Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S02126 Permit Version: 1 Effective Date: 15th November 1972 Issued Date: 15th November 1972 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	8	2	509100 126860
2	**Discharge Consents** Operator: West Sussex County Council Property Type: Undefined Or Other Location: A29 London - Bognor Regis Road, Between Manor House To Pratts Fa, North Of Billingshurst, , Billingshurs,West Susse Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S02126 Permit Version: 1 Effective Date: 15th November 1972 Issued Date: 15th November 1972 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	9	2	509160 126860
3	**Discharge Consents** Operator: West Sussex County Council Property Type: Undefined Or Other Location: A29 London - Bognor Regis Road, Between Manor House To Pratts Fa, North Of Billingshurst, , Billingshurs,West Susse Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S02126 Permit Version: 1 Effective Date: 15th November 1972 Issued Date: 15th November 1972 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A13SW (W)	25	2	509010 126720
3	**Discharge Consents** Operator: West Sussex County Council Property Type: Undefined Or Other Location: A29 London - Bognor Regis Road, Between Manor House To Pratts Fa, North Of Billingshurst, , Billingshurs,West Susse Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S02126 Permit Version: 1 Effective Date: 15th November 1972 Issued Date: 15th November 1972 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A13NW (W)	28	2	509020 126750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Discharge Consents** Operator: Justin Donegan Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Hilland House New Road, Billinghurst, Horsham, West Sussex, Rh14 9aa Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: Npswqd000651 Permit Version: 1 Effective Date: 7th February 2008 Issued Date: 7th February 2008 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Ditch To River Adur **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A13SE (E)	73	2	509504 126705
5	**Discharge Consents** Operator: West Sussex County Council Property Type: Undefined Or Other Location: A29 London - Bognor Regis Road, Between Manor House To Pratts Fa, North Of Billingshurst, , Billingshurs,West Susse Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S02126 Permit Version: 1 Effective Date: 15th November 1972 Issued Date: 15th November 1972 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	76	2	508990 126550
6	**Discharge Consents** Operator: West Sussex County Council Property Type: Undefined Or Other Location: A29 London - Bognor Regis Road, Between Manor House To Pratts Fa, North Of Billingshurst, , Billingshurs,West Susse Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S02126 Permit Version: 1 Effective Date: 15th November 1972 Issued Date: 15th November 1972 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A13NW (N)	109	2	509180 126960
7	**Discharge Consents** Operator: West Sussex County Council Property Type: Undefined Or Other Location: A29 London - Bognor Regis Road, Between Manor House To Pratts Fa, North Of Billingshurst, , Billingshurs,West Susse Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S02126 Permit Version: 1 Effective Date: 15th November 1972 Issued Date: 15th November 1972 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A13SW (W)	114	2	508890 126620

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	**Discharge Consents** Operator: Mrs A Russell Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Johnmar, Little East Street, Billingshurst, West Sussex, Rh14 9pn Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P06960 Permit Version: 1 Effective Date: 20th September 1997 Issued Date: 20th September 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	454	2	508900 126180
9	**Discharge Consents** Operator: Hellett & Jenkins Ltd. Property Type: CONSTRUCTION OF BUILDINGS Location: Development, Rowan Ave/Coombe Hill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01728 Permit Version: 1 Effective Date: 28th June 1968 Issued Date: 28th June 1968 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	464	2	508670 126310
10	**Discharge Consents** Operator: Mr & Mrs E Coulson Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Aspen Place, Billingshurst Aspen Place, Okehurst Road, Billingshurst, West Sussex, Rh14 9hs Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: P12105 Permit Version: 1 Effective Date: 18th June 2004 Issued Date: 18th June 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Ditch To River Arun **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A18SW (N)	541	2	508980 127380
11	**Discharge Consents** Operator: Residential Development Property Type: CONSTRUCTION OF BUILDINGS Location: Residential Development, Rosehill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: N01538 Permit Version: 1 Effective Date: 13th December 1979 Issued Date: 13th December 1979 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	551	2	508900 126080

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	**Discharge Consents** Operator: Mr L T Ugland Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Minstrels Wood, Billingshurst Minstrels Wood, Okehurst Lane, Billingshurst, West Sussex, Rh14 9hr Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: P12232 Permit Version: 1 Effective Date: 13th January 2005 Issued Date: 13th January 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Trib. River Arun **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	572	2	508893 127386
13	**Discharge Consents** Operator: Residential Development Property Type: CONSTRUCTION OF BUILDINGS Location: Residential Development, Rosehill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: N01538 Permit Version: 1 Effective Date: 13th December 1979 Issued Date: 13th December 1979 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	575	2	508880 126060
13	**Discharge Consents** Operator: Residential Development Property Type: CONSTRUCTION OF BUILDINGS Location: Residential Development, Rosehill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: N01538 Permit Version: 1 Effective Date: 13th December 1979 Issued Date: 13th December 1979 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	600	2	508860 126040
13	**Discharge Consents** Operator: Hellett & Jenkins Ltd. Property Type: CONSTRUCTION OF BUILDINGS Location: Development At Rosehill, East Street, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01729 Permit Version: 1 Effective Date: 4th July 1968 Issued Date: 4th July 1968 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	602	2	508850 126040

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Discharge Consents** Operator: Residential Development Property Type: CONSTRUCTION OF BUILDINGS Location: Residential Development, Rosehill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: N01538 Permit Version: 1 Effective Date: 13th December 1979 Issued Date: 13th December 1979 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	615	2	508840 126030
13	**Discharge Consents** Operator: Residential Development Property Type: CONSTRUCTION OF BUILDINGS Location: Residential Development, Rosehill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: N01538 Permit Version: 1 Effective Date: 13th December 1979 Issued Date: 13th December 1979 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	618	2	508830 126030
14	**Discharge Consents** Operator: Hellett & Jenkins Ltd. Property Type: CONSTRUCTION OF BUILDINGS Location: Development, Rowan Ave/Coombe Hill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01728 Permit Version: 1 Effective Date: 28th June 1968 Issued Date: 28th June 1968 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	598	2	508570 126220
15	**Discharge Consents** Operator: Hellett & Jenkins Ltd. Property Type: CONSTRUCTION OF BUILDINGS Location: Development At Rosehill, East Street, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01729 Permit Version: 1 Effective Date: 4th July 1968 Issued Date: 4th July 1968 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	612	2	508820 126040

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	**Discharge Consents** Operator: Hellett & Jenkins Ltd. Property Type: CONSTRUCTION OF BUILDINGS Location: Development At Rosehill, East Street, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01729 Permit Version: 1 Effective Date: 4th July 1968 Issued Date: 4th July 1968 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	631	2	508770 126040
16	**Discharge Consents** Operator: Ingrid Duncan & Anthony Sacker Property Type: Undefined Or Other Location: Tedfold Barns, Tedfold Stud, Rowner Road, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P05412 Permit Version: 1 Effective Date: 26th July 1994 Issued Date: 26th July 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Post National Rivers Authority Legislation where issue date > 31/08/1989** Positional Accuracy: Located by supplier to within 100m	A12NW (W)	625	2	508400 126800
16	**Discharge Consents** Operator: Mr R Crombie & Ms L Kingston Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Woodhatch,Tedfold Stud Woodhatch, Tedfold Stud, Rowner Road, Billingshurst, West Sussex, Rh14 9hu Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: P12089 Permit Version: 1 Effective Date: 24th May 2004 Issued Date: 24th May 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Pond - No Outlet Receiving Water: Seasonal Soakaway **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A12NW (W)	649	2	508370 126780
17	**Discharge Consents** Operator: Mr K T Lawson Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: South Lodge, New Road, Billingshurst, West Sussex, Rh14 9dt Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P07427 Permit Version: 1 Effective Date: 13th November 1998 Issued Date: 13th November 1998 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A14NE (E)	632	2	510070 126880

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	**Discharge Consents** Operator: Mr S G O Cannon Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Woodhatch, Tedfold Stud, Okehurst Road, Billingshurst West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P06501 Permit Version: 1 Effective Date: 15th January 1997 Issued Date: 15th January 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A12NW (W)	635	2	508430 126910
19	**Discharge Consents** Operator: Hellett & Jenkins Ltd. Property Type: CONSTRUCTION OF BUILDINGS Location: Development, Rowan Ave/Coombe Hill, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01728 Permit Version: 1 Effective Date: 28th June 1968 Issued Date: 28th June 1968 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	648	2	508550 126170
20	**Discharge Consents** Operator: Mary Elizabeth Jordan Property Type: Undefined Or Other Location: Dunelm, Okehurst Lane, Billingshurst, West Sussex, Rh14 9hr Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P04495 Permit Version: 1 Effective Date: 15th October 1992 Issued Date: 15th October 1992 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	651	2	509300 127500
21	**Discharge Consents** Operator: Ma Shaieb, Cf Shaieb, Ka Buckley Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: The Gables, Billingshurst The Gables, Okehurst Lane, Billingshurst, West Sussex, Rh14 9hr Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: P12364 Permit Version: 1 Effective Date: 10th May 2005 Issued Date: 10th May 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib. River Arun **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A18NW (N)	659	2	509080 127510

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	**Discharge Consents** Operator: Mr Houghton Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Chalk Farm, Okehurst Lane, Billingshurst, West Sussex, Rh14 9hr Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: Npswqd000900 Permit Version: 1 Effective Date: 3rd March 2008 Issued Date: 3rd March 2008 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Storm Water Ditch **Status:** **New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A18NW (N)	702	2	508997 127546
23	**Discharge Consents** Operator: Mr D A Mowling Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Wildens, Coneyhurst Rd, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P09373 Permit Version: 1 Effective Date: 18th December 2000 Issued Date: 18th December 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status:** **Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	767	2	509800 125990
24	**Discharge Consents** Operator: Scottish And Southern Energy Plc Property Type: MAKING OF COMPUTERS/ELECTRONICS/OPTICAL PRODUCTS Location: Electrical Primary Substation, Land Adjacent To A29, Billingshurst Bypass, East Sussex, Rh14 Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: P12616 Permit Version: 1 Effective Date: 3rd February 2006 Issued Date: 3rd February 2006 Revocation Date: 3rd February 2018 Discharge Type: Trade Effluent Discharge-Site Drainage Discharge Environment: Land/Soakaway Receiving Water: Groundwater Via A Soakaway **Status:** **New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	770	2	508300 126320
24	**Discharge Consents** Operator: Mrs E A Berry - Parish Clerk Property Type: SPORT, AMUSEMENT+RECREATION/GOLF CLUB/GYM/THEME PK/SPA Location: Jubilee Fields Recreation Land, West Of A29 Billingshurst Bypass, Petworth Road, Billingshurst, West Sussex, Rh14 9hz Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: P12399 Permit Version: 1 Effective Date: 27th July 2005 Issued Date: 27th July 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tributary Of River Arun **Status:** **New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	793	2	508270 126330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	**Discharge Consents** Operator: Southern Water Services Ltd (S) Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Gorselands, Billingshurst, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: A00480 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 10th October 1994 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Post National Rivers Authority Legislation where issue date > 31/08/1989** Positional Accuracy: Located by supplier to within 100m	A3NW (S)	900	2	509100 125700
26	**Discharge Consents** Operator: Mr & Mrs M J Brister Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Southdown Hse, Tedfold Stud Farm, Okehurst Lane, Billingshurst, Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P09682 Permit Version: 1 Effective Date: 22nd March 2001 Issued Date: 22nd March 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A11NE (W)	919	2	508140 126950
27	**Discharge Consents** Operator: D O'Brien Esq Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Little Daux Farmhouse, LONDON ROAD, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: N02665 Permit Version: 1 Effective Date: 17th May 1983 Issued Date: 17th May 1983 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 100m	A3NE (S)	959	2	509240 125650
	Nearest Surface Water Feature	A13SE (E)	10	-	509435 126667
28	**Pollution Incidents to Controlled Waters** Property Type: Domestic/Residential Location: ON OLD A29 BY FARM BUILDING NEAR PYLONS Authority: Environment Agency, Southern Region Pollutant: General Biodegradable : Sewage Treated Effluent & Sewerage Material Note: Not Supplied Incident Date: 15th February 1999 Incident Reference: 1962 Catchment Area: Arun Receiving Water: Potential River Cause of Incident: Drainage Failures : Surface Water Sewer Failure Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	29	2	509000 126600
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 45 West Sussex and Surrey Scale: 1:100,000	A13NE (E)	0	2	509229 126732
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NW (NW)	0	1	509121 126817

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A13NE (E)	0	1	509229 126732
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
29	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 225.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A13NW (W)	24	3	509023 126746
30	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 486.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12NE (W)	244	3	508819 126829
31	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 33.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12NE (W)	244	3	508819 126829
32	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 133.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	475	3	509661 127267
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 45.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A7NE (SW)	525	3	508560 126352
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 156.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	589	3	509810 127304
35	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	599	3	509731 127370

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 71.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A14SE (E)	601	3	510032 126660
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 85.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	602	3	509733 127372
38	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 12.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	606	3	509892 127249
39	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 33.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	606	3	509892 127249
40	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 17.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SE (NE)	610	3	509916 127226
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 530.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SE (NE)	617	3	509931 127218
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	634	3	509800 127368
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 126.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19SW (NE)	637	3	509801 127371
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 204.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A14SE (E)	666	3	510096 126649

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 49.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12NW (W)	706	3	508369 126948
46	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 285.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 2	A17NE (NW)	733	3	508766 127506
47	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19NW (NE)	740	3	509804 127491
48	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 417.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SW (W)	740	3	508271 126530
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 164.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19NW (NE)	744	3	509805 127494
50	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 438.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12NW (W)	755	3	508321 126961
51	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 19.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19NW (NE)	849	3	509753 127636
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 331.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Adur Catchment Name: Adur and Teville Primacy: 1	A10NW (E)	859	3	510236 126381
53	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 345.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A19NW (NE)	861	3	509749 127650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 256.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Adur Catchment Name: Adur and Teville Primacy: 1	A15SW (E)	869	3	510294 126603
55	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Adur Catchment Name: Adur and Teville Primacy: 1	A10NW (E)	885	3	510253 126352
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 607.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Adur Catchment Name: Adur and Teville Primacy: 1	A10NW (E)	887	3	510255 126349
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 71.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A17SW (NW)	937	3	508288 127328
58	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 439.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Adur Catchment Name: Adur and Teville Primacy: 1	A15NW (E)	943	3	510397 126823
59	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Adur and Teville Primacy: 1	A15NW (E)	973	3	510414 126770
60	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 96.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A17NW (NW)	974	3	508313 127432
61	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 190.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A17SW (NW)	992	3	508259 127386

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Billingshurst, Sussex Name: Wooddale Lane Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD19983 First Input Date: 31st December 1960 Last Input Date: 31st December 1965 Specified Waste Type: Deposited Waste included Inert, Commercial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 3800/8228 BGS Ref: Not Supplied Other Ref: WD27/026	A9NW (SE)	606	2	509674 126106
	Local Authority Landfill Coverage Name: Horsham District Council - Has supplied landfill data		0	4	509229 126732
	Local Authority Landfill Coverage Name: West Sussex County Council - Has supplied landfill data		0	5	509229 126732
63	**Local Authority Recorded Landfill Sites** Location: Wooddale Road, Billingshurst Reference: Not Supplied Authority: West Sussex County Council, Environment & Development **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A9SW (SE)	714	5	509700 126000
63	**Local Authority Recorded Landfill Sites** Location: Wood Dale Road, Billingshurst Reference: 27/026 Authority: Horsham District Council, Environmental Health Department **Last Reported Status:** **Not Supplied** Types of Waste: Household, Commercial Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A9SW (SE)	714	4	509700 126000
64	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1898	A19SW (NE)	551	-	509815 127251
65	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1913	A14SE (E)	583	-	509991 126530
66	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1961	A18NW (N)	713	-	508979 127555

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Wealden Group	A13NE (E)	0	1	509229 126732
	BGS 1:625,000 Solid Geology Description: Wealden Group	A13NE (E)	0	1	509245 126736
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (E)	0	1	509229 126732
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15SW (E)	862	1	510260 126450
	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 Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A14SW (E)	241	1	509663 126637
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	509121 126817
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	16	1	509263 126601

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	17	1	509388 126890
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A14NW (E)	187	1	509628 126805
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	234	1	509389 126417
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	509229 126732
	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	A13NE (E)	0	1	509229 126732

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	**Contemporary Trade Directory Entries** Name: Bora Bora Swimwear Location: San Blas, High Seat Copse, High Street, Billingshurst, West Sussex, RH14 9SN Classification: Clothing & Fabrics - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (SW)	272	-	508940 126358
68	**Contemporary Trade Directory Entries** Name: Crystal Clean Carpet Cleaning Co Location: 112, Coombe Hill, Billingshurst, West Sussex, RH14 9NW Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	415	-	508773 126288
69	**Contemporary Trade Directory Entries** Name: Roman Way Garage Location: 3, High Street, Billingshurst, West Sussex, RH14 9PL Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	461	-	508835 126197
69	**Contemporary Trade Directory Entries** Name: Mr Clean Location: 5, High Street, Billingshurst, West Sussex, RH14 9PL Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	483	-	508815 126183
70	**Contemporary Trade Directory Entries** Name: B B Electricals Location: Little East St, Billingshurst, West Sussex, RH14 9PN Classification: Domestic Appliances - Servicing, Repairs & Parts **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A8NW (SW)	543	-	508893 126090
70	**Contemporary Trade Directory Entries** Name: Aardvark Dry Carpet Cleaning Location: 26, Rosehill, Billingshurst, West Sussex, RH14 9QN Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	555	-	508884 126080
71	**Contemporary Trade Directory Entries** Name: Aurac Sound & Vision Location: 33, High Street, Billingshurst, RH14 9PP Classification: Electrical Goods Sales, Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	591	-	508761 126089
72	**Contemporary Trade Directory Entries** Name: Sussex Laundry Location: 7, Jengers Mead, Billingshurst, West Sussex, RH14 9PB Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	597	-	508686 126127
72	**Contemporary Trade Directory Entries** Name: Hurst Cleaners Location: 7, Jengers Mead, Billingshurst, West Sussex, RH14 9PB Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	597	-	508686 126127
72	**Contemporary Trade Directory Entries** Name: Carfinance4less.Com Location: Unit 8, Laura House, Jengers Mead, Billingshurst, West Sussex, RH14 9NZ Classification: Car Dealers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	644	-	508663 126086
73	**Contemporary Trade Directory Entries** Name: Austen'S Home Hardware Location: 48-52, High Street, Billingshurst, RH14 9NY Classification: Hardware **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	646	-	508710 126054

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
73	**Contemporary Trade Directory Entries** Name: Waterstation Location: 48-52, High Street, Billingshurst, West Sussex, RH14 9NY Classification: Water Coolers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	646	-	508710 126054
73	**Contemporary Trade Directory Entries** Name: Terrific Cleaners Billingshurst Location: 54a, High Street, Billingshurst, West Sussex, RH14 9NY Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7SE (SW)	660	-	508698 126045
74	**Contemporary Trade Directory Entries** Name: John Weetman Location: 16, Pine Close, Billingshurst, West Sussex, RH14 9NL Classification: Agricultural Machinery - Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	703	-	508461 126186
74	**Contemporary Trade Directory Entries** Name: Shisa Gas & Heating Location: 16, Pine Close, Billingshurst, West Sussex, RH14 9NL Classification: Boilers - Servicing, Replacements & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	703	-	508461 126186
75	**Contemporary Trade Directory Entries** Name: H R Holfeld (Pumps) Ltd Location: 74, High Street, Billingshurst, West Sussex, RH14 9QS Classification: Pump Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7SE (SW)	752	-	508665 125957
76	**Contemporary Trade Directory Entries** Name: Smart Pro Location: 5, Nightingale Walk, Billingshurst, West Sussex, RH14 9TY Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	774	-	509005 125831
77	**Contemporary Trade Directory Entries** Name: Euroll (Uk) Ltd Location: 87, High Street, BILLINGSHURST, West Sussex, RH14 9QX Classification: Roller Shutter Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7SE (SW)	919	-	508650 125779
78	**Contemporary Trade Directory Entries** Name: L & W Contractors Ltd Location: Stane Street, Billingshurst, West Sussex, RH14 9AE Classification: Railway Equipment Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A23SE (N)	951	-	509432 127798
78	**Contemporary Trade Directory Entries** Name: Unigate Dairies Ltd Location: Tisserand Farm, Stane Street, Billingshurst, West Sussex, RH14 9AE Classification: Dairies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A23SE (N)	951	-	509432 127798
79	**Fuel Station Entries** Name: Roman Way Garage Location: 3, High Street Roman Way, , Billingshurst, West Sussex, RH14 9PL Brand: Obsolete Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	462	-	508834 126197
80	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	223	6	509432 127071
81	**Points of Interest - Manufacturing and Production** Name: Michael Kelly Location: New Road, Billingshurst, RH14 9DU Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A14NE (E)	549	6	509991 126784

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
81	**Points of Interest - Manufacturing and Production** Name: Michael Kelly Location: Wooddale Farm, New Road, Billingshurst, RH14 9DU Category: Farming Class Code: Arable Farming Positional Accuracy: Positioned to address or location	A14NE (E)	549	6	509991 126784
82	**Points of Interest - Manufacturing and Production** Name: Denver Poultry Farm Location: RH14 Category: Farming Class Code: Poultry Farming, Equipment and Supplies Positional Accuracy: Positioned to address or location	A18NW (N)	595	6	509077 127446
83	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	640	6	508947 125975
84	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	706	6	510052 127195
85	**Points of Interest - Manufacturing and Production** Name: Tedfold Cottage Farm Location: 1 Tedfold Cottages, Rowner Road, Billingshurst, RH14 9HU Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A12NW (W)	749	6	508310 126921
86	**Points of Interest - Public Infrastructure** Name: Billinghurst Community and Conference Centre Location: Roman Way, Billinghurst, RH14 9EW Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A7NE (SW)	388	6	508873 126260
87	**Points of Interest - Public Infrastructure** Name: Billingshurst Fire Station Location: West Street, Billingshurst, RH14 9LW Category: Central and Local Government Class Code: Fire Brigade Stations Positional Accuracy: Positioned to address or location	A7SW (SW)	985	6	508360 125887
88	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	320	6	509081 126280
88	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Norman Close, RH14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8NW (S)	321	6	509089 126279
89	**Points of Interest - Recreational and Environmental** Name: Playground Location: Arun Crescent, RH14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	867	6	508298 126128
90	**Points of Interest - Recreational and Environmental** Name: Playground Location: High Street, RH14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7SE (SW)	873	6	508676 125817
90	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	878	6	508667 125816

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	**Ancient Woodland** Name: Not Supplied Reference: 1478328 Area(m²): 24322.19 Type: Ancient and Semi-Natural Woodland	A13NW (NW)	89	7	509135 126940
92	**Ancient Woodland** Name: Not Supplied Reference: 1478052 Area(m²): 11376.14 Type: Ancient and Semi-Natural Woodland	A12NE (W)	456	7	508601 126854
93	**Ancient Woodland** Name: Not Supplied Reference: 1478362 Area(m²): 15026.72 Type: Ancient and Semi-Natural Woodland	A14SE (E)	674	7	510049 126408
94	**Ancient Woodland** Name: Not Supplied Reference: 1478327 Area(m²): 21887.59 Type: Ancient and Semi-Natural Woodland	A19NW (NE)	728	7	509783 127488
95	**Ancient Woodland** Name: Not Supplied Reference: 1478755 Area(m²): 58650.11 Type: Ancient and Semi-Natural Woodland	A11SE (W)	815	7	508192 126559
96	**Ancient Woodland** Name: Not Supplied Reference: 1478363 Area(m²): 16031.83 Type: Ancient and Semi-Natural Woodland	A15SW (E)	847	7	510276 126629
97	**Ancient Woodland** Name: Not Supplied Reference: 1478745 Area(m²): 29069.99 Type: Ancient and Semi-Natural Woodland	A19SE (NE)	857	7	510213 127211
98	**Ancient Woodland** Name: Not Supplied Reference: 1478361 Area(m²): 3722.75 Type: Ancient and Semi-Natural Woodland	A19SE (NE)	932	7	510222 127352
99	**Ancient Woodland** Name: Not Supplied Reference: 1478326 Area(m²): 2060.95 Type: Ancient and Semi-Natural Woodland	A17SW (NW)	937	7	508288 127328
100	**Ancient Woodland** Name: Not Supplied Reference: 1478730 Area(m²): 23563.75 Type: Ancient and Semi-Natural Woodland	A17NW (NW)	945	7	508364 127450
101	**Nitrate Vulnerable Zones** Name: River Arun (U/S Pallingham) Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NE (E)	0	8	509229 126732

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Horsham District Council - Environmental Health Department	February 2015	Annual Rolling Update
Chichester District Council - Environmental Health Department	July 2013	Annual Rolling Update
Discharge Consents		
Environment Agency - Southern Region	April 2018	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Southern Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - Southern Region	October 2008	Variable
Integrated Pollution Prevention And Control		
Environment Agency - South East Region - Solent & South Downs Area	April 2018	Quarterly
Environment Agency - Southern Region	April 2018	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Horsham District Council - Environmental Health Department	June 2015	Variable
Chichester District Council - Environmental Health Department	October 2014	Variable
Local Authority Pollution Prevention and Controls		
Horsham District Council - Environmental Health Department	June 2015	Annual Rolling Update
Chichester District Council - Environmental Health Department	October 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Horsham District Council - Environmental Health Department	June 2015	Variable
Chichester District Council - Environmental Health Department	October 2014	Variable
Nearest Surface Water Feature		
Ordnance Survey	September 2017	
Pollution Incidents to Controlled Waters		
Environment Agency - Southern Region	December 1999	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Southern Region	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - Southern Region	March 2013	As notified
Registered Radioactive Substances		
Environment Agency - Southern Region	January 2015	
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 - South East Region - Solent & South Downs Area	April 2018	Quarterly
Environment Agency - Southern Region - Solent and South Downs	April 2018	Quarterly
Environment Agency - Southern Region - Sussex Area	April 2018	Quarterly
Water Abstractions		
Environment Agency - Southern Region	April 2018	Quarterly
Water Industry Act Referrals		
Environment Agency - Southern Region	October 2017	Quarterly
Groundwater Vulnerability		
Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations		
British Geological Survey - National Geoscience Information Service	August 2015	As notified

Agency & Hydrological	Version	Update Cycle
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones Environment Agency - Head Office	January 2018	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2018	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2018	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	May 2018	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	May 2018	Quarterly
Flood Defences Environment Agency - Head Office	May 2018	Quarterly
OS Water Network Lines Ordnance Survey	May 2018	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability Environment Agency - Head Office	October 2013	As notified
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	April 2018	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Southern Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Solent & South Downs Area	April 2018	Quarterly
Environment Agency - Southern Region - Solent and South Downs	April 2018	Quarterly
Environment Agency - Southern Region - Sussex Area	April 2018	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South East Region - Solent & South Downs Area	April 2018	Quarterly
Environment Agency - Southern Region - Solent and South Downs	April 2018	Quarterly
Environment Agency - Southern Region - Sussex Area	April 2018	Quarterly
Local Authority Landfill Coverage		
Chichester District Council - Environmental Health Department	May 2000	Not Applicable
Horsham District Council - Environmental Health Department	May 2000	Not Applicable
West Sussex County Council - Environment & Development	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Chichester District Council - Environmental Health Department	May 2000	Not Applicable
Horsham District Council - Environmental Health Department	May 2000	Not Applicable
West Sussex County Council - Environment & Development	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - Southern Region - Solent and South Downs	March 2003	Not Applicable
Environment Agency - Southern Region - Sussex Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Southern Region - Solent and South Downs	March 2003	Not Applicable
Environment Agency - Southern Region - Sussex Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - Southern Region - Solent and South Downs	March 2003	Not Applicable
Environment Agency - Southern Region - Sussex Area	March 2003	Not Applicable
Hazardous Substances	**Version**	**Update Cycle**
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Variable
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Horsham District Council - Planning Department	August 2015	Variable
Chichester District Council - Planning Department	February 2016	Variable
West Sussex County Council - Environment & Development	October 2006	Annual Rolling Update
Planning Hazardous Substance Consents		
Horsham District Council - Planning Department	August 2015	Variable
Chichester District Council - Planning Department	February 2016	Variable
West Sussex County Council - Environment & Development	October 2006	Annual Rolling Update

Data Currency

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2018	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	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	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	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	May 2018	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2018	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Points of Interest - Commercial Services PointX	June 2018	Quarterly
Points of Interest - Education and Health PointX	June 2018	Quarterly
Points of Interest - Manufacturing and Production PointX	June 2018	Quarterly
Points of Interest - Public Infrastructure PointX	June 2018	Quarterly
Points of Interest - Recreational and Environmental PointX	June 2018	Quarterly
Underground Electrical Cables National Grid	December 2015	Bi-Annually

Data Currency

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	October 2017	Bi-Annually
Areas of Outstanding Natural Beauty Natural England	February 2018	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	February 2018	Bi-Annually
Marine Nature Reserves Natural England	January 2018	Bi-Annually
National Nature Reserves Natural England	February 2018	Bi-Annually
National Parks Natural England	April 2017	Bi-Annually
Nitrate Vulnerable Zones Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2017 October 2015	Bi-Annually
Ramsar Sites Natural England	February 2018	Bi-Annually
Sites of Special Scientific Interest Natural England	February 2018	Bi-Annually
Special Areas of Conservation Natural England	January 2018	Bi-Annually
Special Protection Areas Natural England	February 2018	Bi-Annually

Data Suppliers

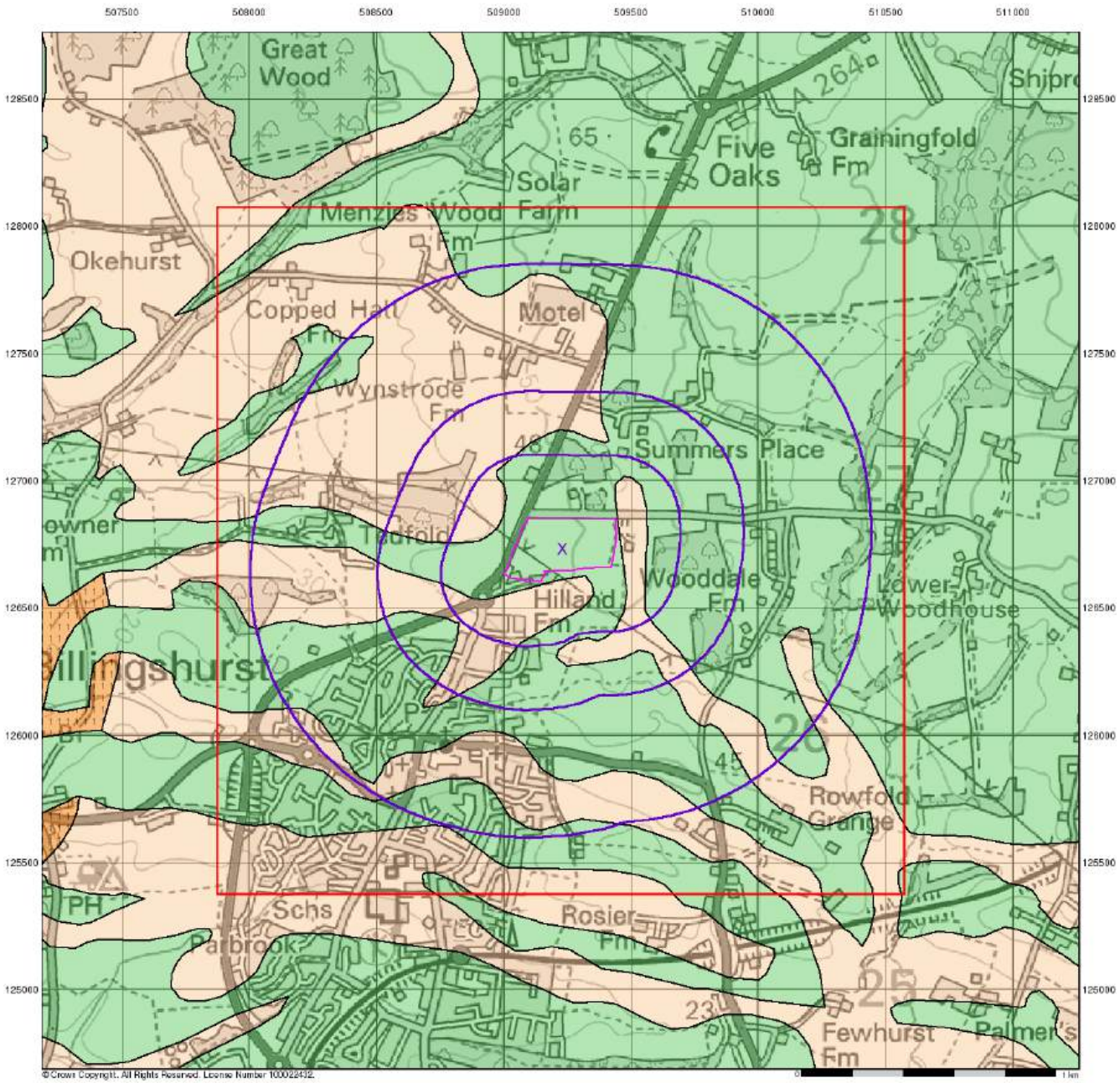
A selection of organisations who provide data within this report

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

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
4	**Horsham District Council - Environmental Health Department** Park House, North Street, Horsham, Sussex, RH12 1RL	Telephone: 01403 215100 Fax: 01403 732790 Website: www.horsham.gov.uk
5	**West Sussex County Council - Environment & Development** County Hall, Tower hall, Chichester, West Sussex, PO19 1RH	Telephone: 01243 777100 Website: www.westsussex.gov.uk
6	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
7	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
8	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	**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 / Natural Resources Wales / SEPA have a charging policy in place for enquiries.



Geo-Environmental

Groundwater Vulnerability

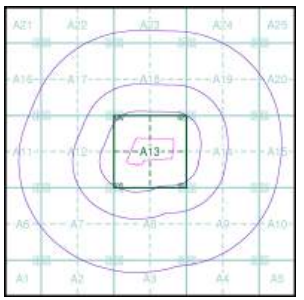
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



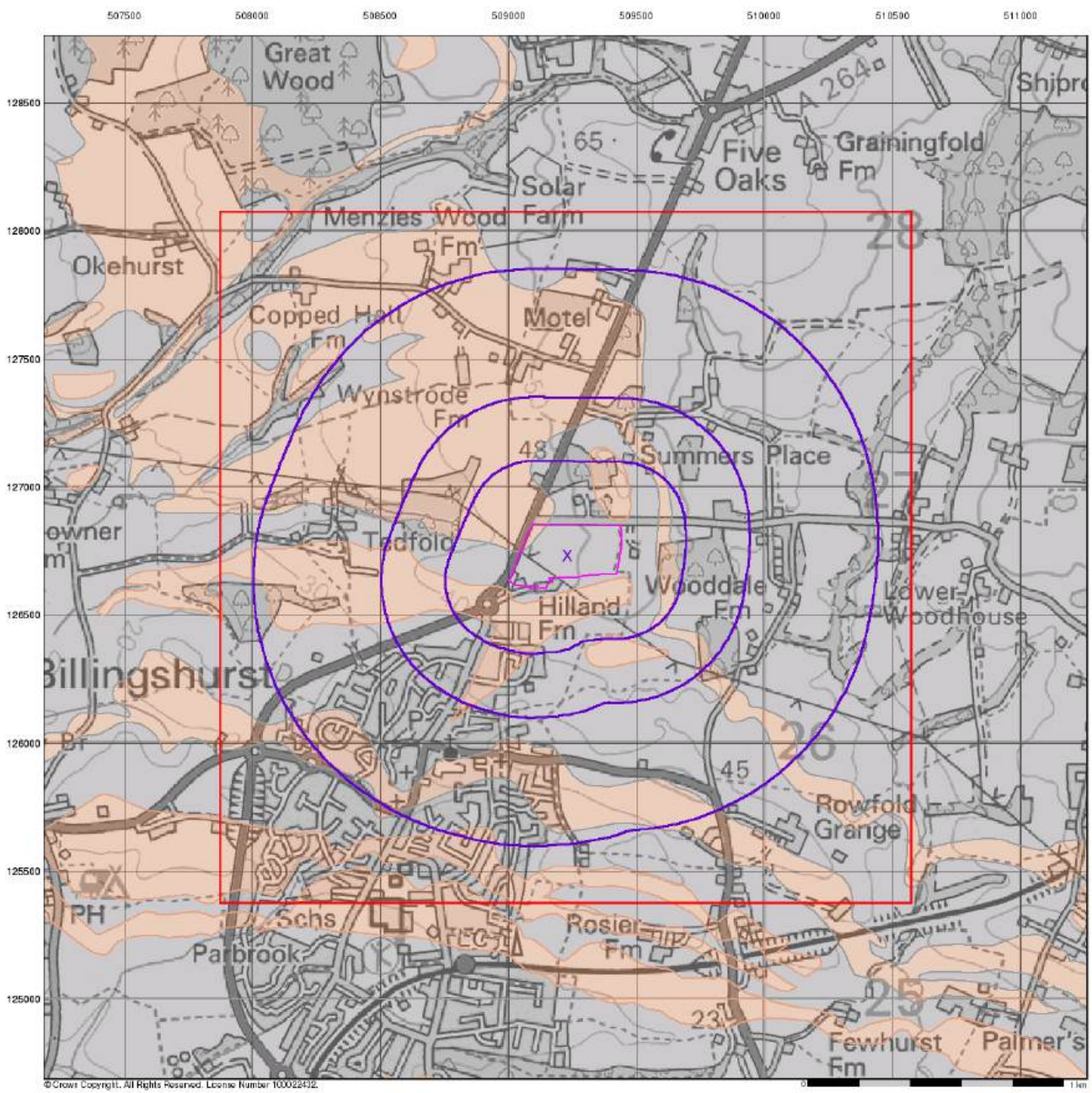
Order Details

Order Number:	175723966_1_1
Customer Ref:	GE17451
National Grid Reference:	509230, 126730
Slice:	A
Site Area (Ha):	8.28
Search Buffer (m):	1000

Site Details

Hilland Farm, Stane Street, BILLINGSHURST, RH14 9HN

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



Geo-Environmental

Bedrock Aquifer Designation

General

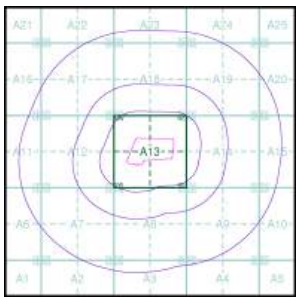
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



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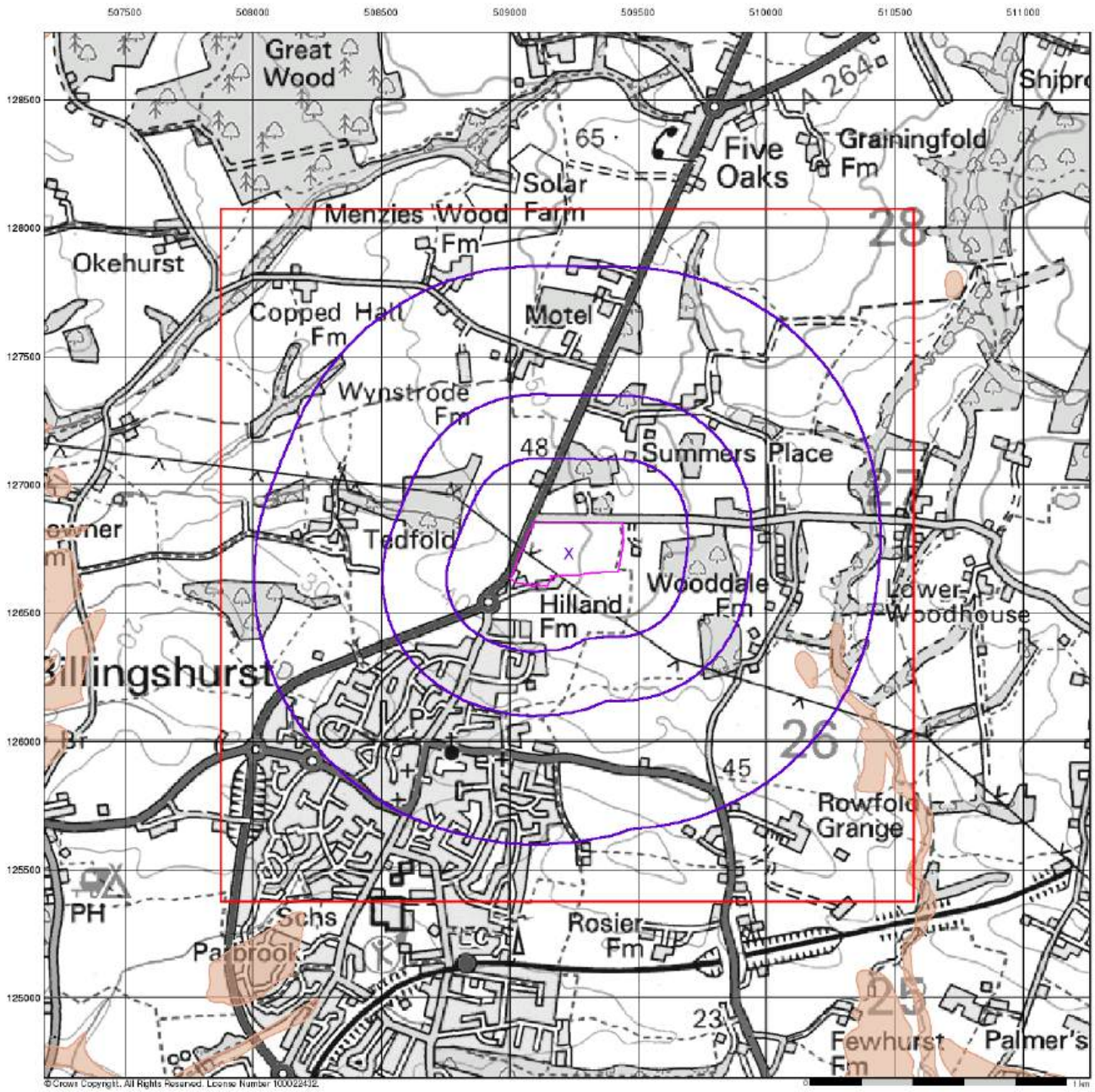


Geo-Environmental

Superficial Aquifer Designation

General

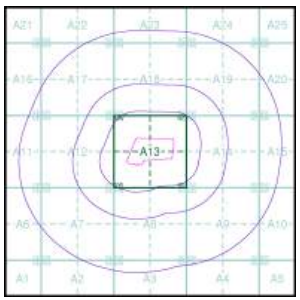
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



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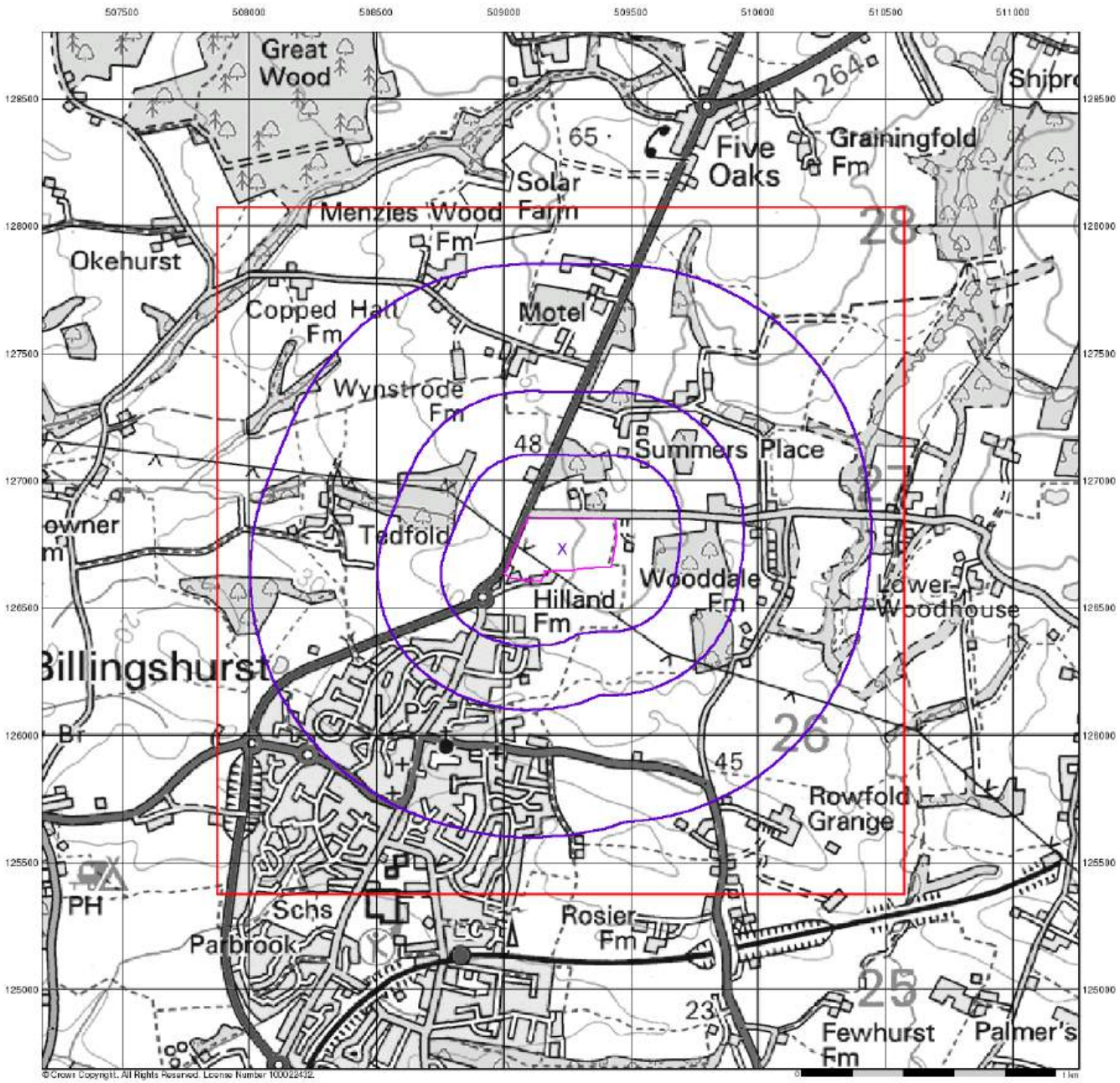


Geo-Environmental

Source Protection Zones

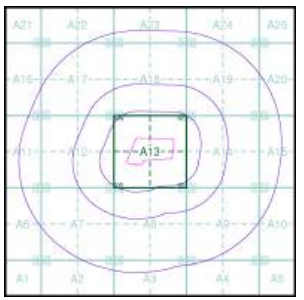
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



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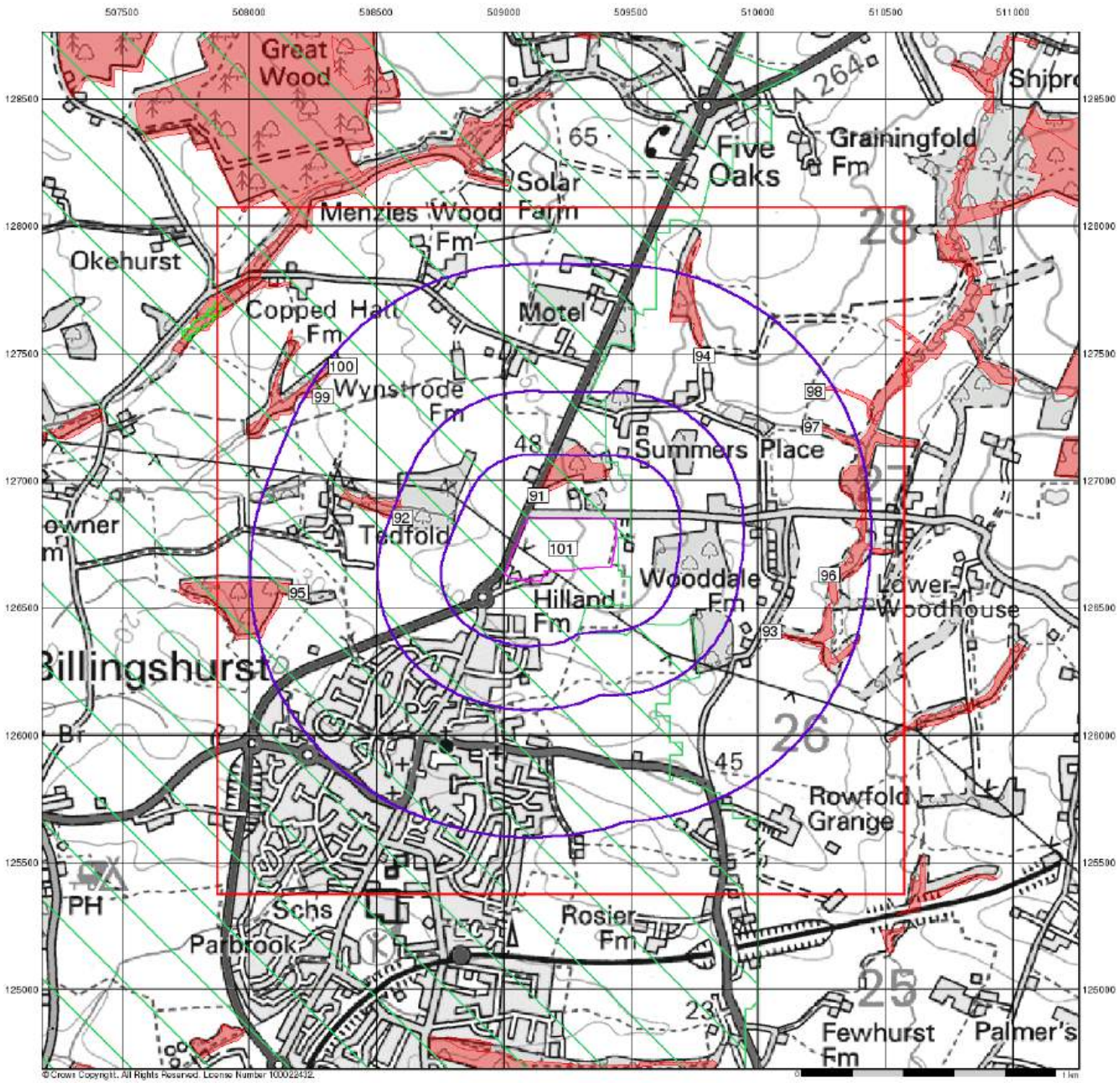


Geo-Environmental

Sensitive Land Uses

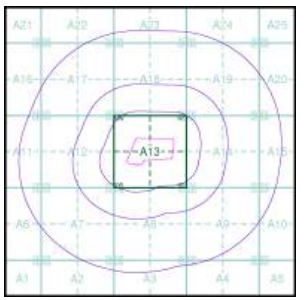
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



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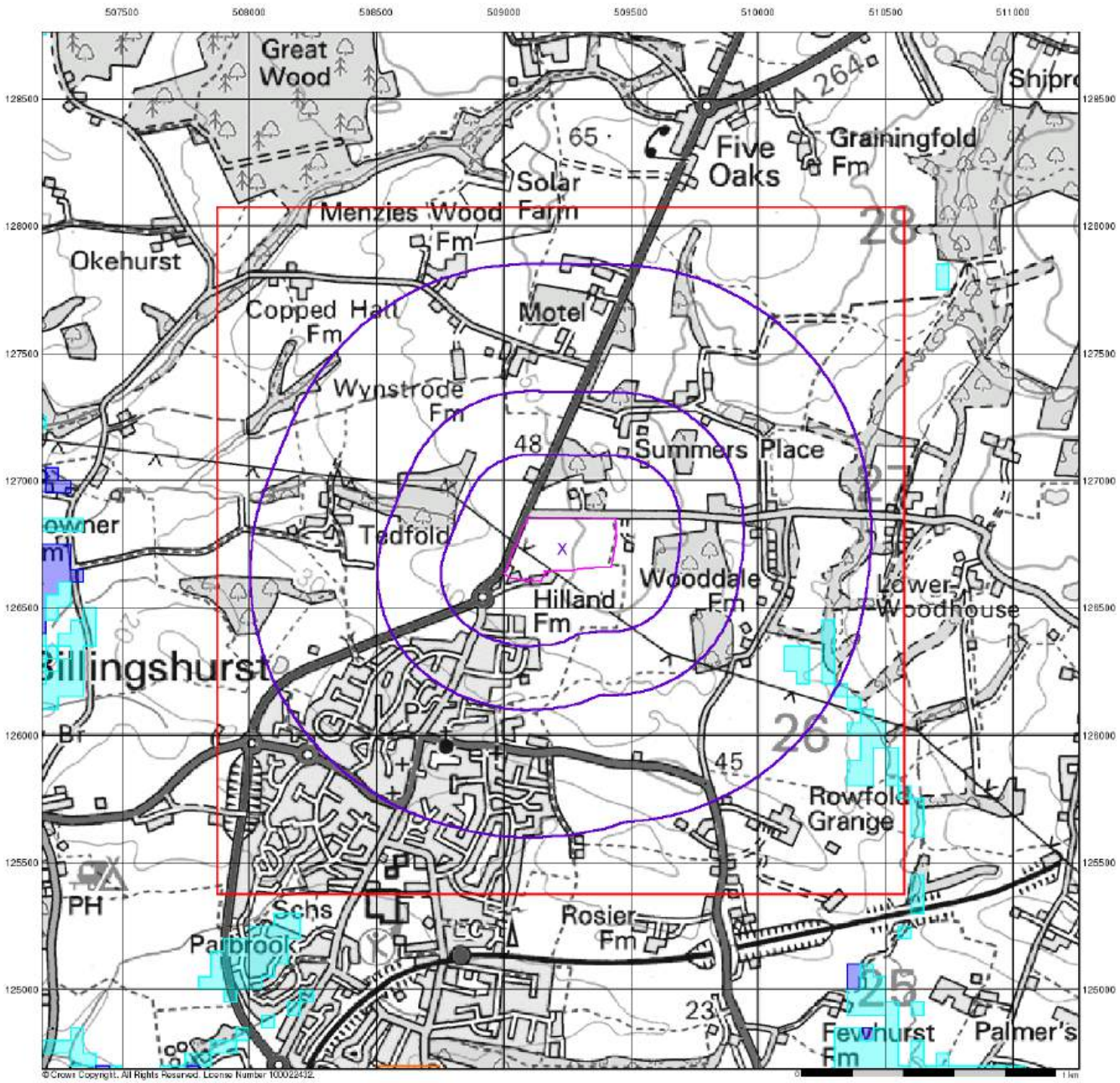


Geo-Environmental

BGS Flood GFS Data

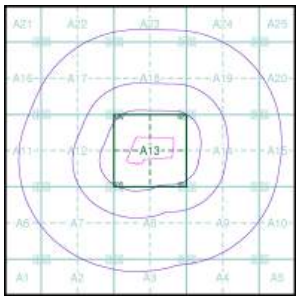
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	175723966_1_1
Customer Ref:	GE17451
National Grid Reference:	509230, 126730
Slice:	A
Site Area (Ha):	8.28
Search Buffer (m):	1000

Site Details

Hilland Farm, Stane Street, BILLINGSHURST, RH14 9HN

Landmark INFORMATION GROUP
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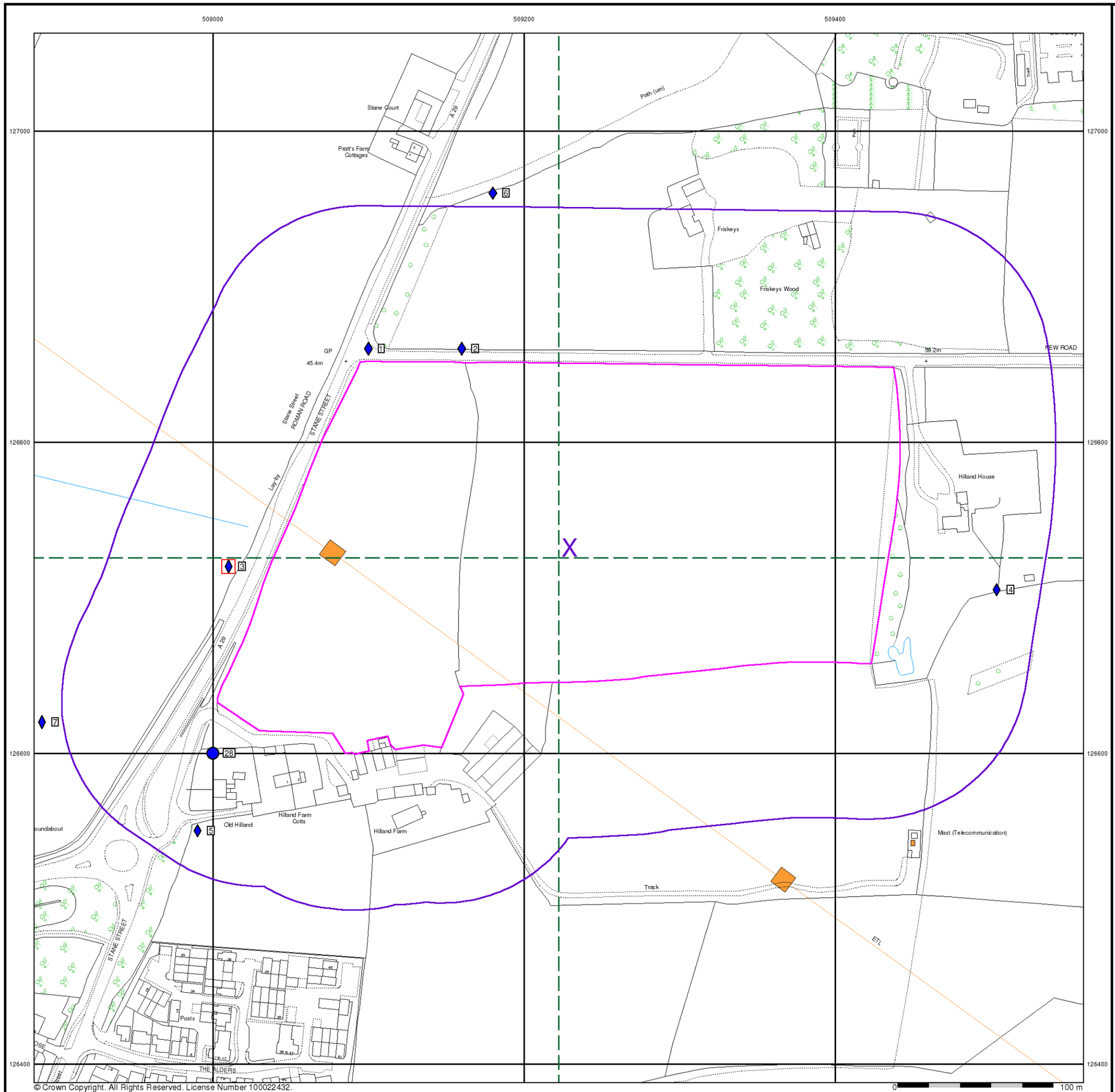


Geo-Environmental

General

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

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

Hazardous Substances

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

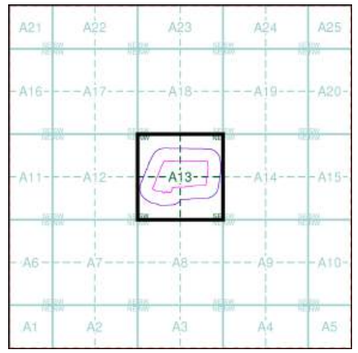
Geological

- BGS Recorded Mineral Site

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
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- 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

Site Sensitivity Map - Segment A13



Order Details

Order Number:	175723966_1_1
Customer Ref:	GE17451
National Grid Reference:	509230, 126730
Slice:	A
Site Area (Ha):	8.28
Plot Buffer (m):	100

Site Details

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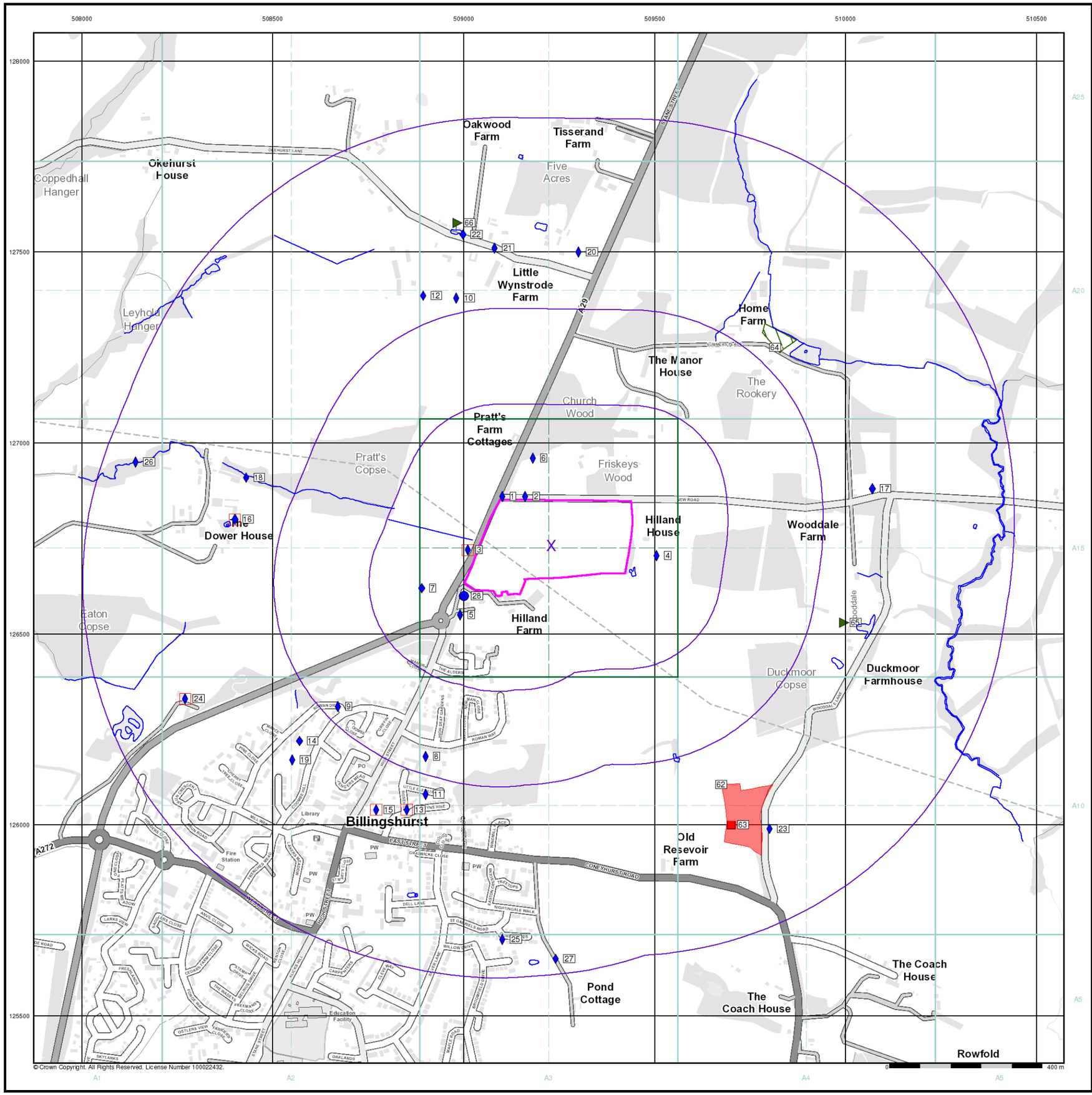

Geo-Environmental

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
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- 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

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
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- Integrated Pollution Control Registered Waste Site
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- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- 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

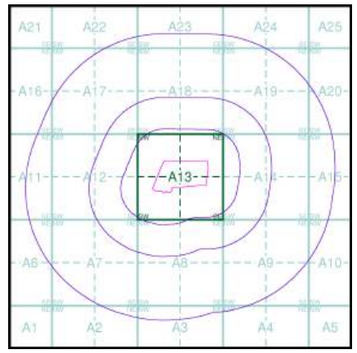
Hazardous Substances

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

Geological

- BGS Recorded Mineral Site

Site Sensitivity Map - Slice A



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Slice:	A
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Search Buffer (m):	1000

Site Details

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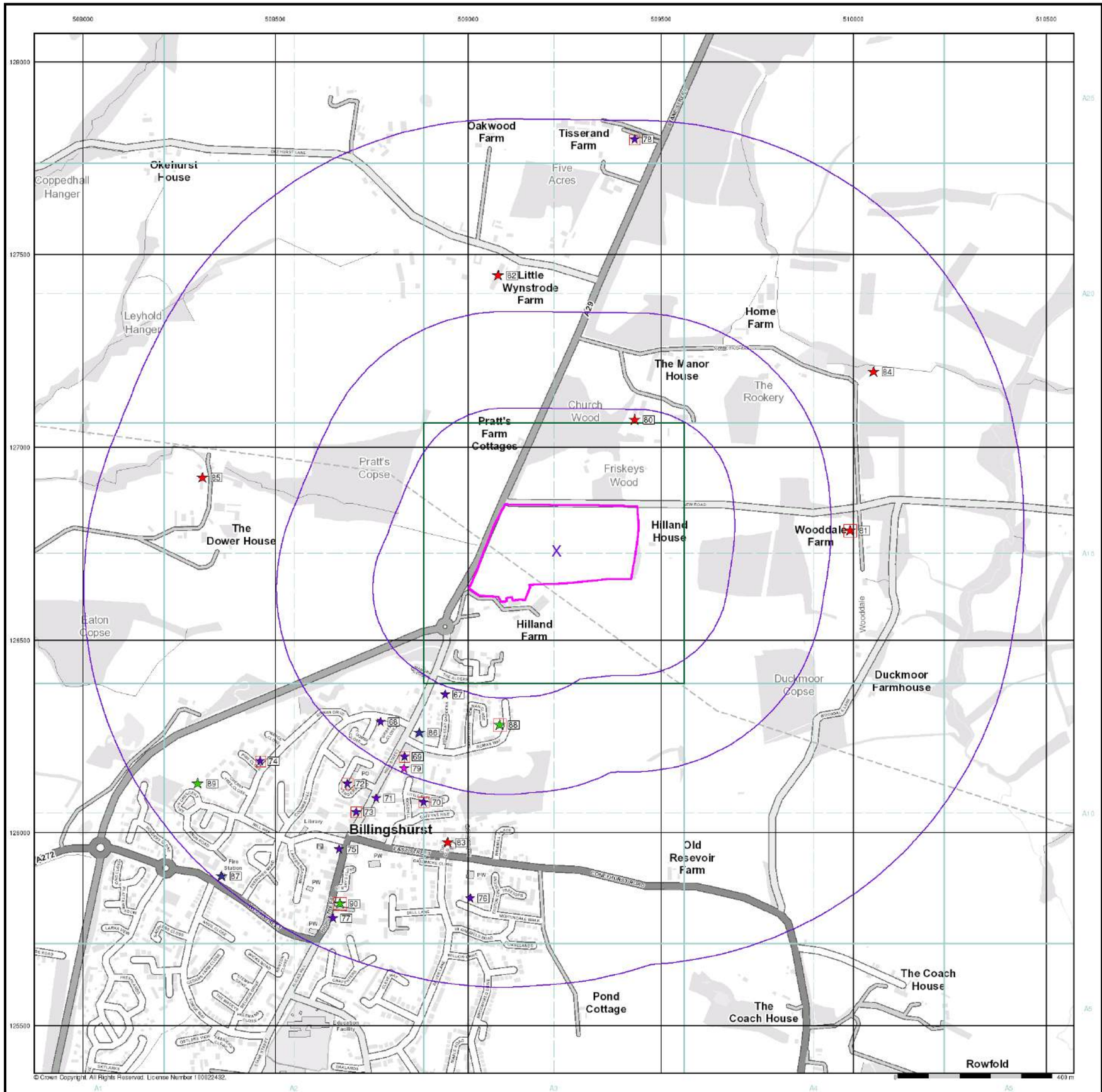


Geo-Environmental
Industrial Land Use Map

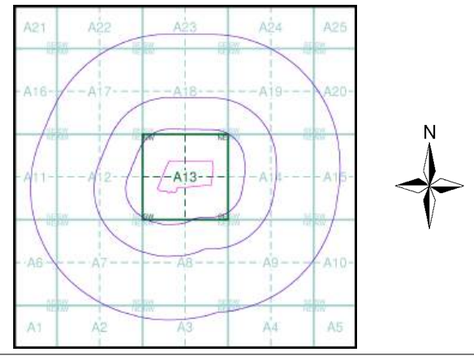
General

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

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



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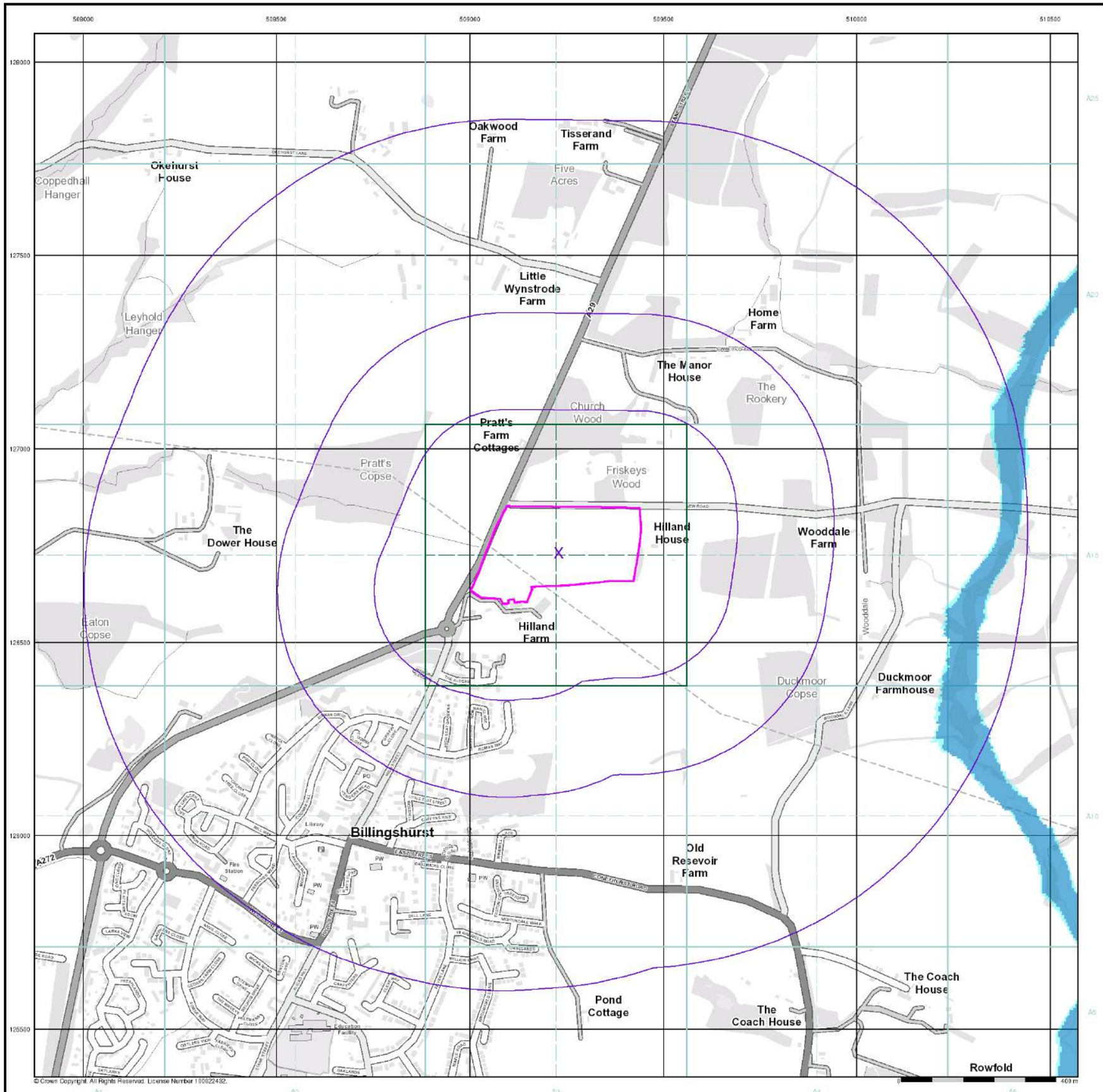

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Geo-Environmental

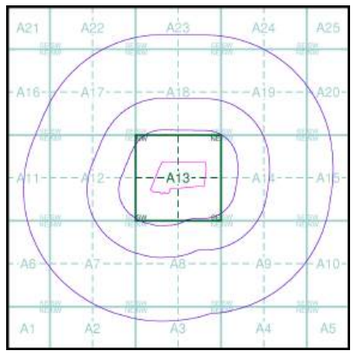
General

- 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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Geo-Environmental

General

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

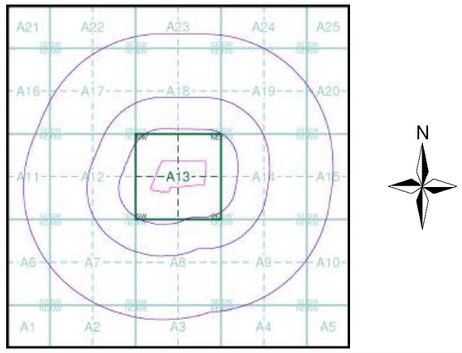
Agency and Hydrological (Boreholes)

- 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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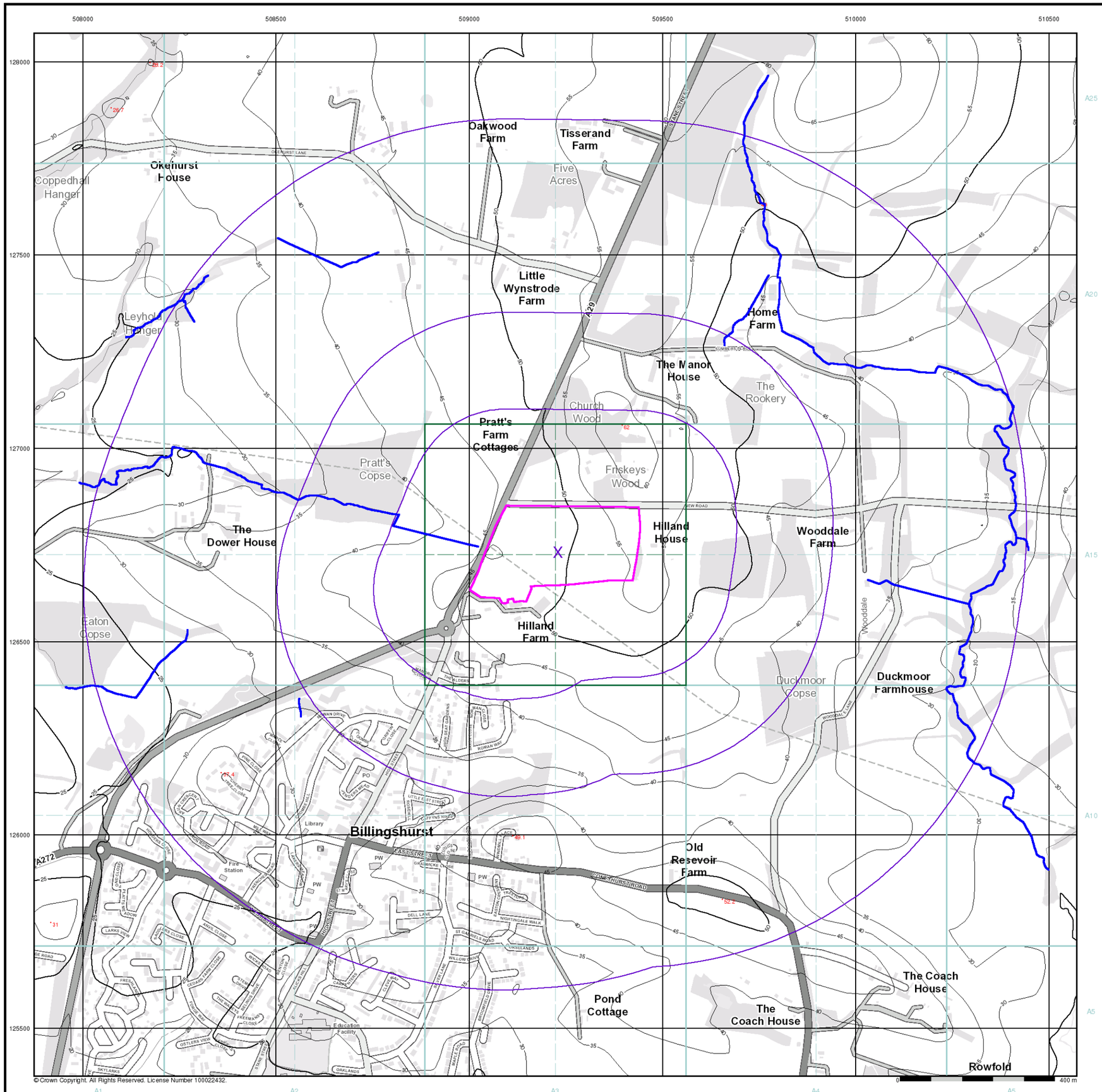


Geo-Environmental

General

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

OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

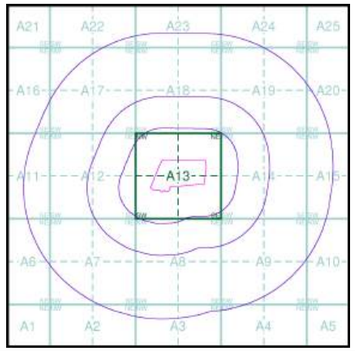
Standard Contour 105 100 95

Master Contour

Spot Height 167.3

- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



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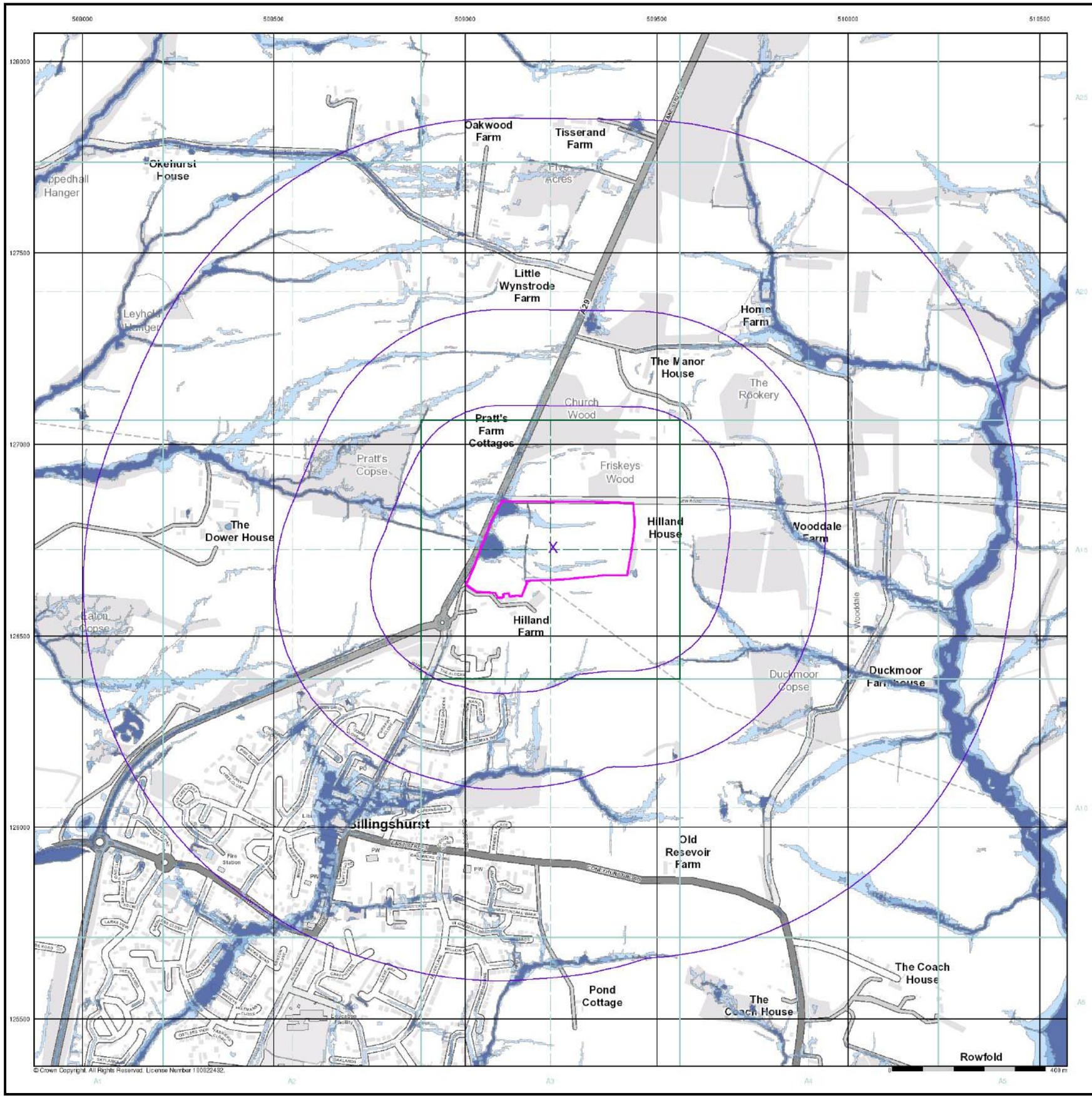


Geo-Environmental

General

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

Risk of Flooding from Surface Water

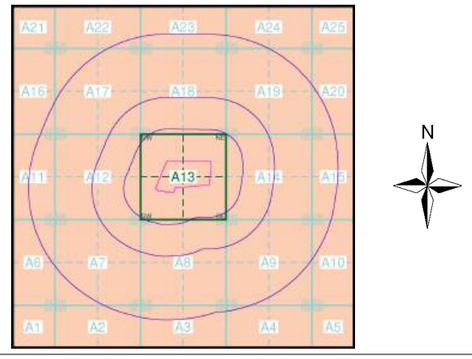
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



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Geo-Environmental

General

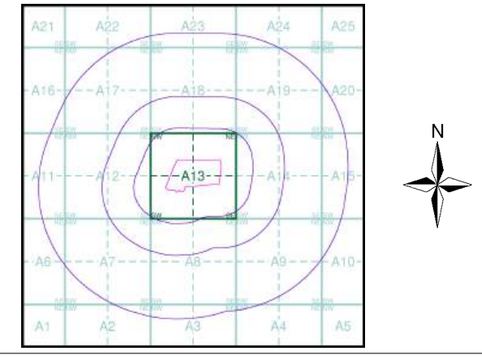
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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



Order Details

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Geo-Environmental

General

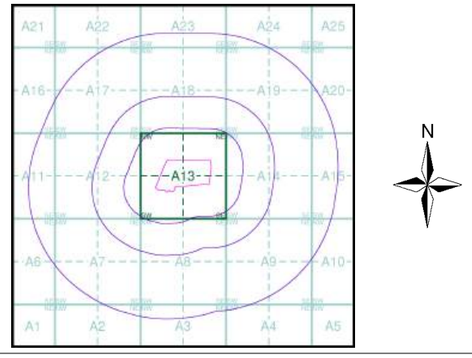
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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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Geo-Environmental

General

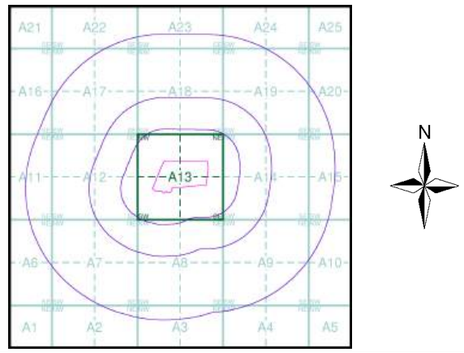
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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



Order Details

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Geo-Environmental

General

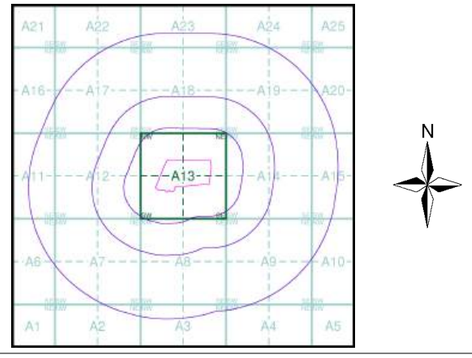
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- <100 mg/kg
- 100 - 200
- 200 - 300
- 300 - 600
- 600 - 1200
- >1200

Estimated Soil Chemistry Lead - Slice A



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Geo-Environmental

General

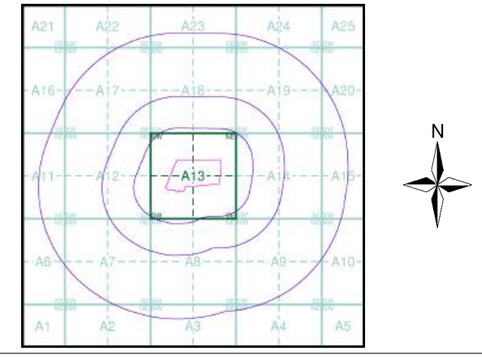
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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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Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	AR2	Arun Terrace Deposits, 2 Member	Sand and Gravel	Not Supplied - Devensian
	AR3	Arun Terrace Deposits, 3 Member	Sand and Gravel	Not Supplied - Wolstonian
	AD2	River Terrace Deposits, 2 (Adur)	Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WC	Weald Clay Formation	Sandstone	Not Supplied - Hauterivian
	WC	Weald Clay Formation	Mudstone	Not Supplied - Hauterivian
	WC	Weald Clay Formation	Limestone	Not Supplied - Hauterivian
		Faults		

Geo-Environmental

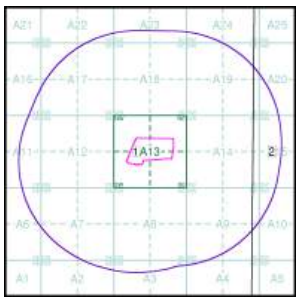
Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	**1**	**Map ID:**	**2**
Map Sheet No:	**301**	**Map Sheet No:**	**302**
Map Name:	**Haslemere**	**Map Name:**	**Horsham**
Map Date:	**1981**	**Map Date:**	**1972**
Bedrock Geology:	**Available**	**Bedrock Geology:**	**Available**
Superficial Geology:	**Available**	**Superficial Geology:**	**Available**
Artificial Geology:	**Not Available**	**Artificial Geology:**	**Available**
Faults:	**Not Supplied**	**Faults:**	**Not Supplied**
Landslip:	**Available**	**Landslip:**	**Available**
Rock Segments:	**Not Supplied**	**Rock Segments:**	**Not Supplied**

Geology 1:50,000 Maps - Slice A



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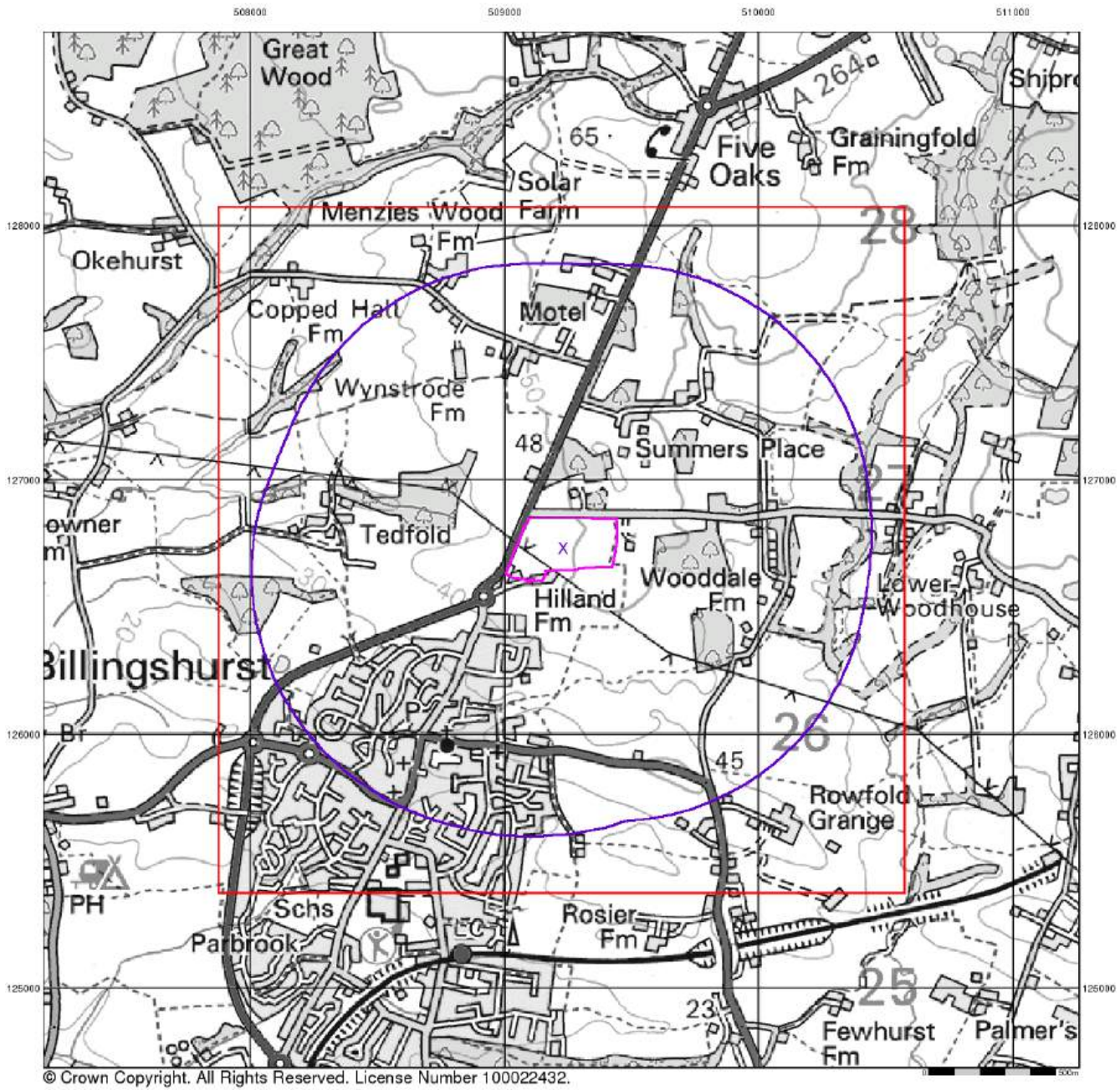


Geo-Environmental

Artificial Ground and Landslip

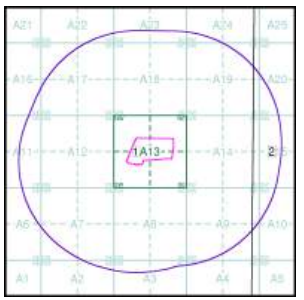
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number:	175723966_1_1
Customer Reference:	GE17451
National Grid Reference:	509230, 126730
Slice:	A
Site Area (Ha):	8.28
Search Buffer (m):	1000

Site Details:

Hilland Farm, Stane Street, BILLINGSHURST, RH14 9HN

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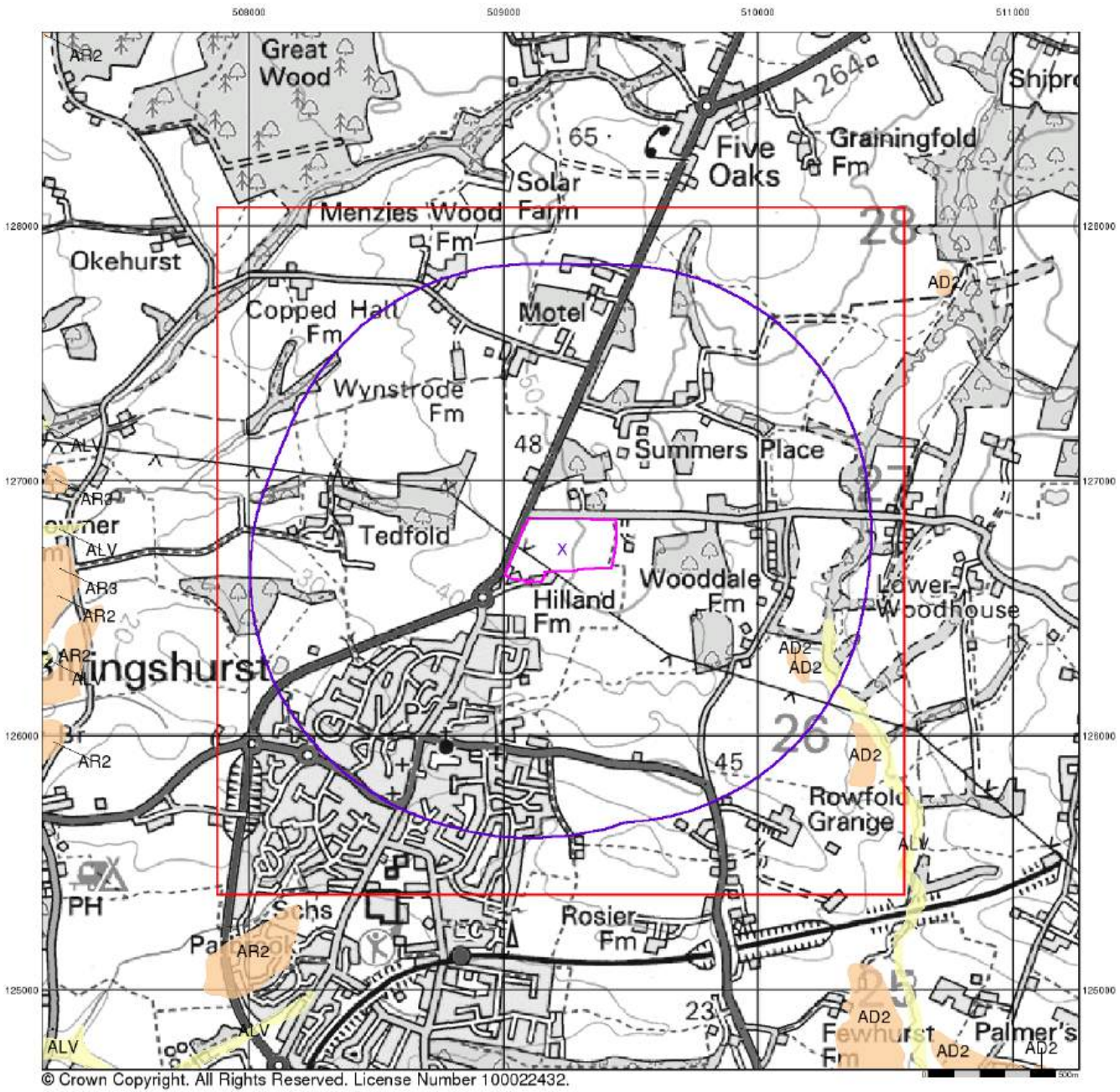
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geo-Environmental

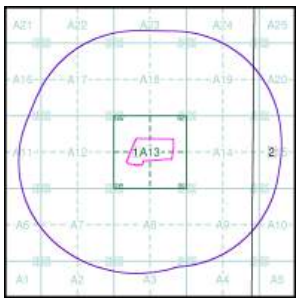
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



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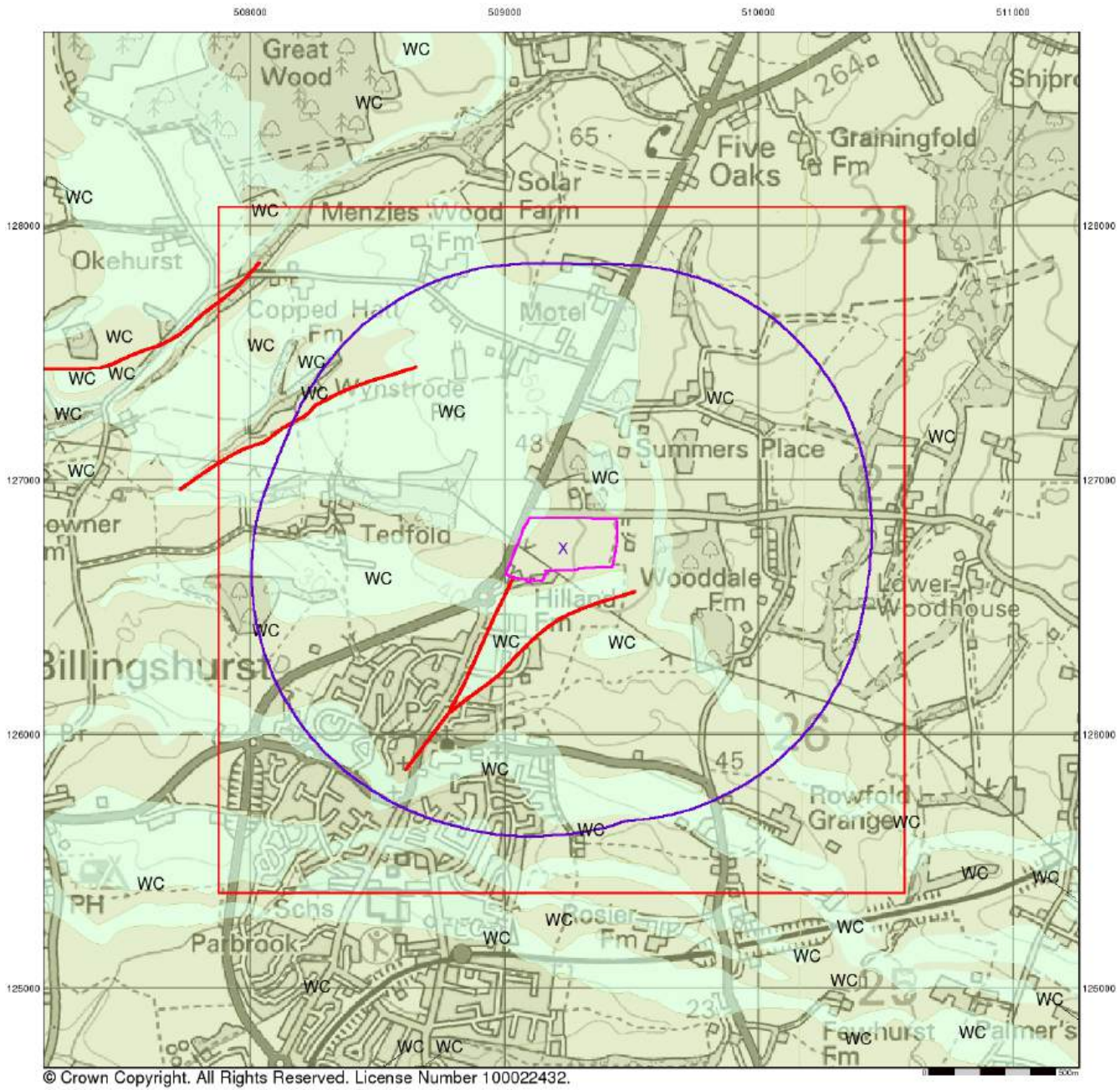


Geo-Environmental

Bedrock and Faults

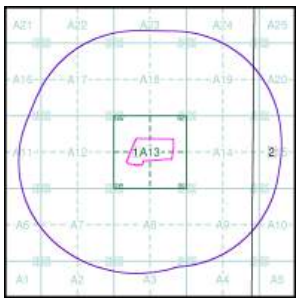
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



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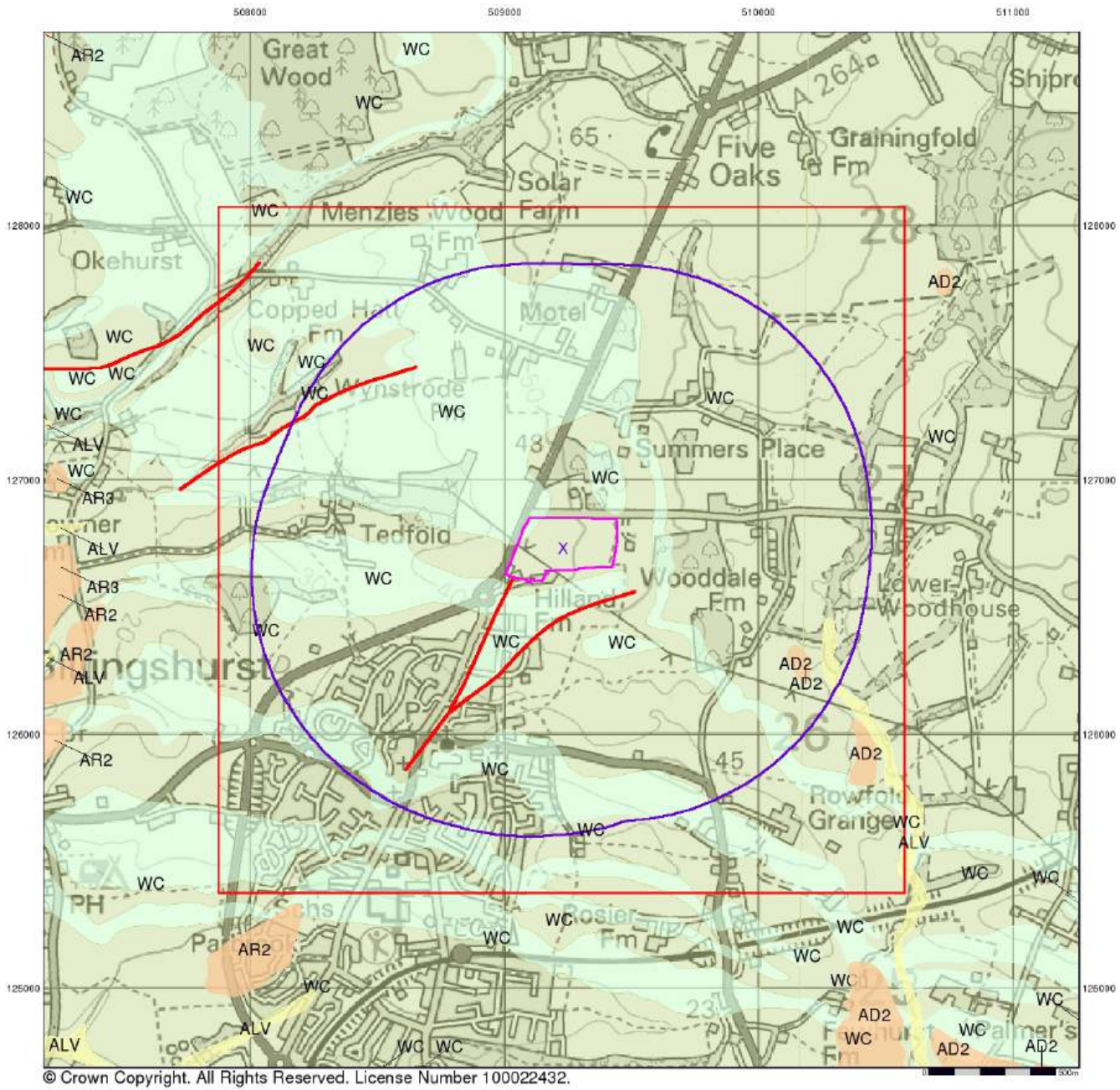


Geo-Environmental

Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

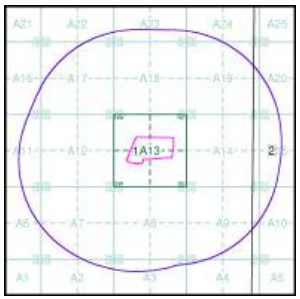
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



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Site Details:

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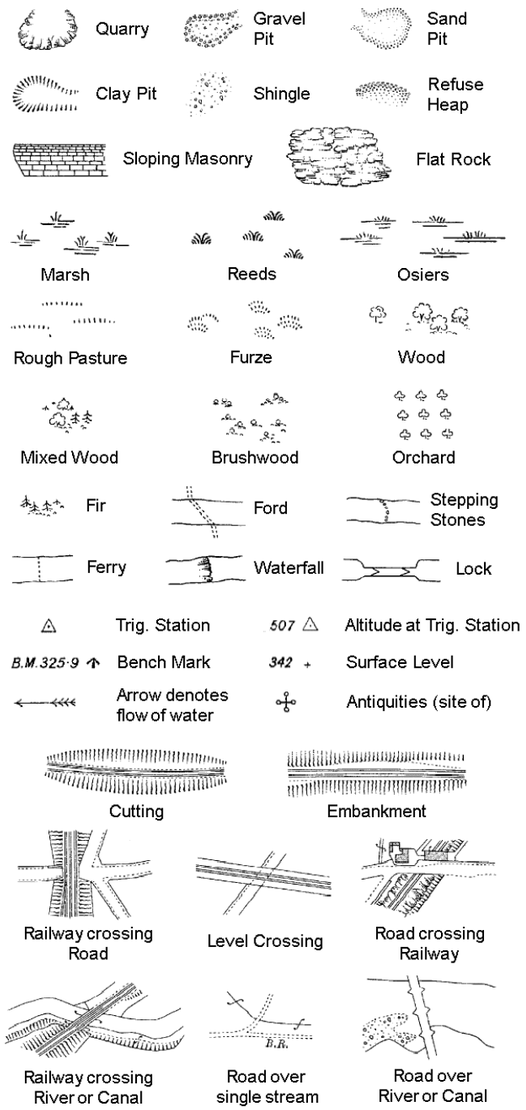
Historical Mapping Legends

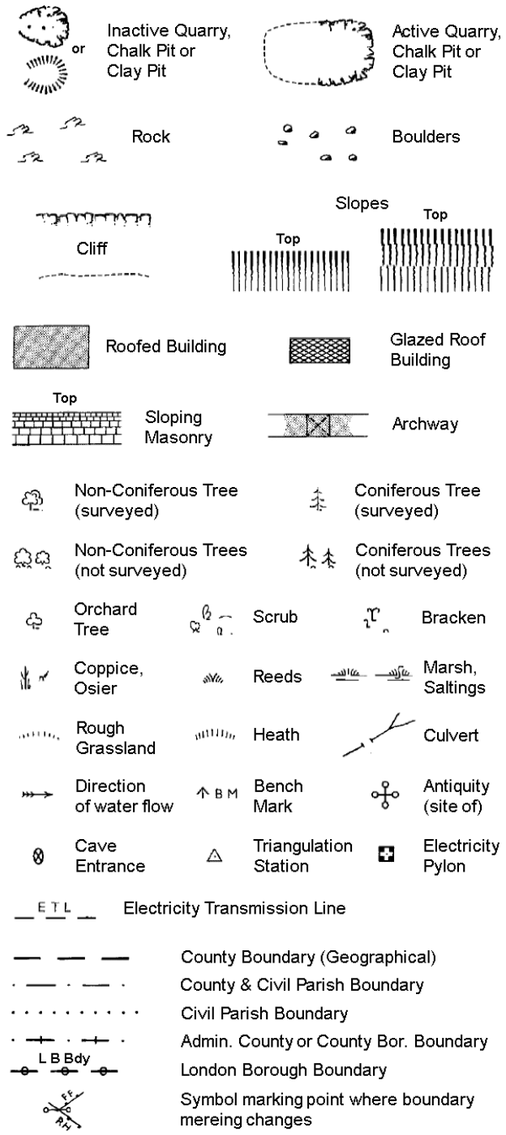
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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

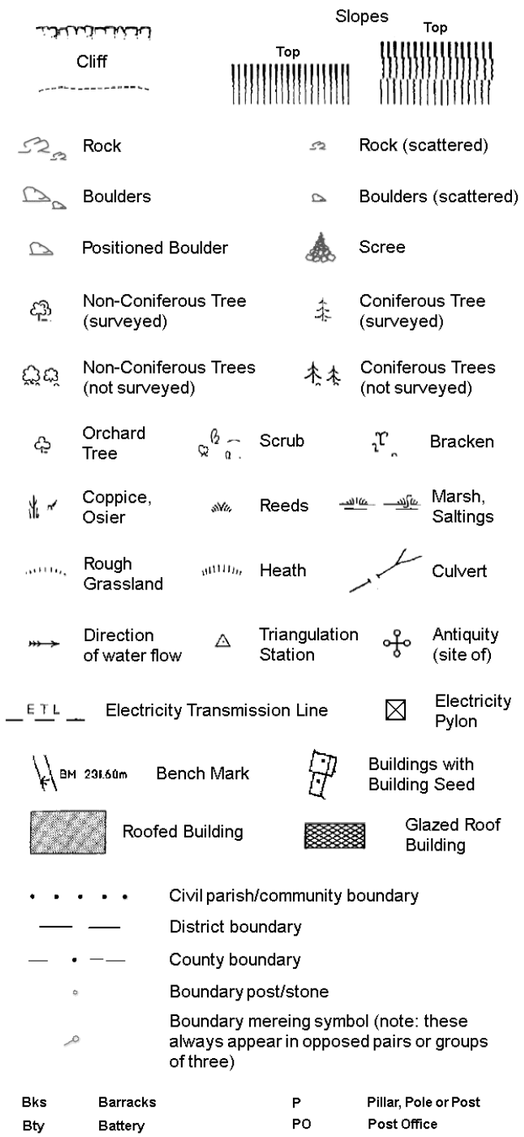
Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



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



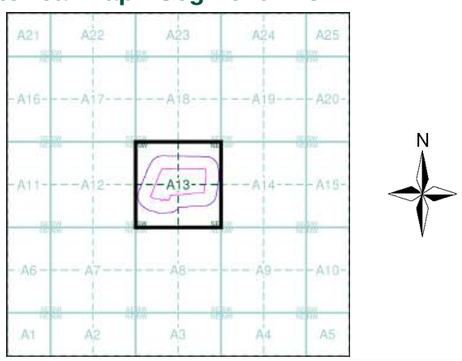
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

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

Geo-Environmental
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Sussex	1:2,500	1876	2
Sussex	1:2,500	1897	3
Sussex	1:2,500	1911 - 1912	4
Sussex	1:2,500	1939	5
Ordnance Survey Plan	1:2,500	1971 - 1972	6
Supply of Unpublished Survey Information	1:2,500	1973	7
Supply of Unpublished Survey Information	1:2,500	1974	8
Additional SIMs	1:2,500	1977	9
Additional SIMs	1:2,500	1991	10
Large-Scale National Grid Data	1:2,500	1993	11
Large-Scale National Grid Data	1:2,500	1996	12
Large-Scale National Grid Data	1:2,500	1996	13
Historical Aerial Photography	1:2,500	1999	14

Historical Map - Segment A13



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Site Details

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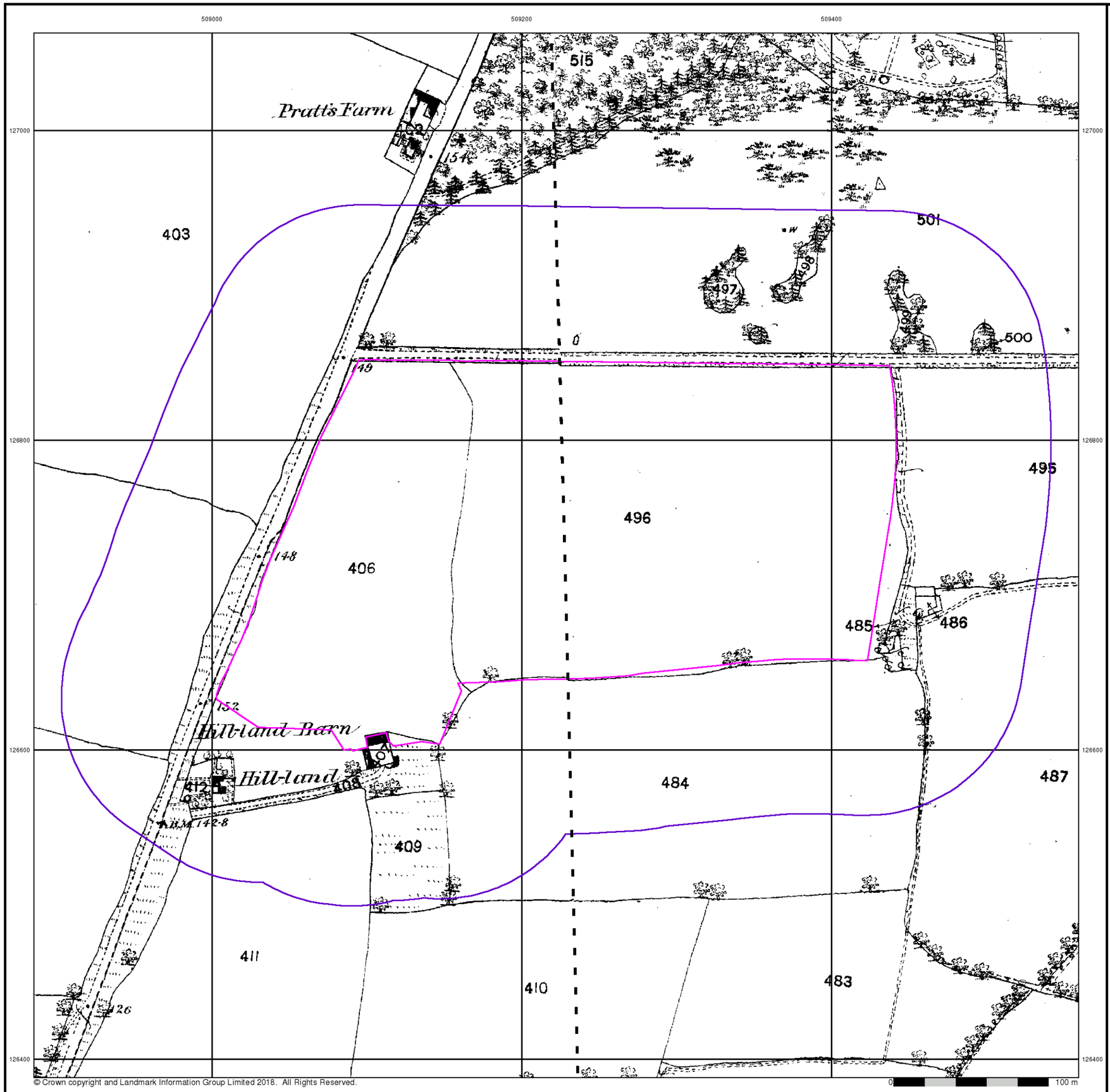

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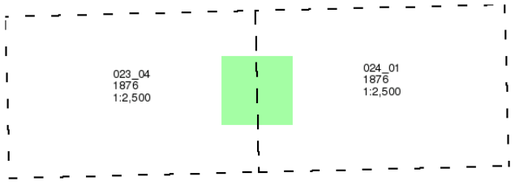
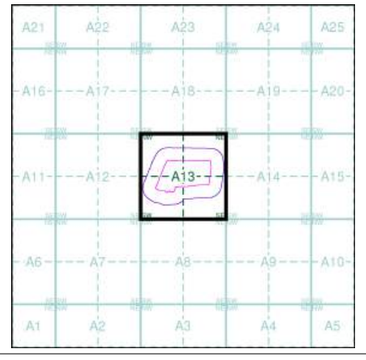
Geo-Environmental
Sussex
Published 1876
Source map scale - 1:2,500

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 A13



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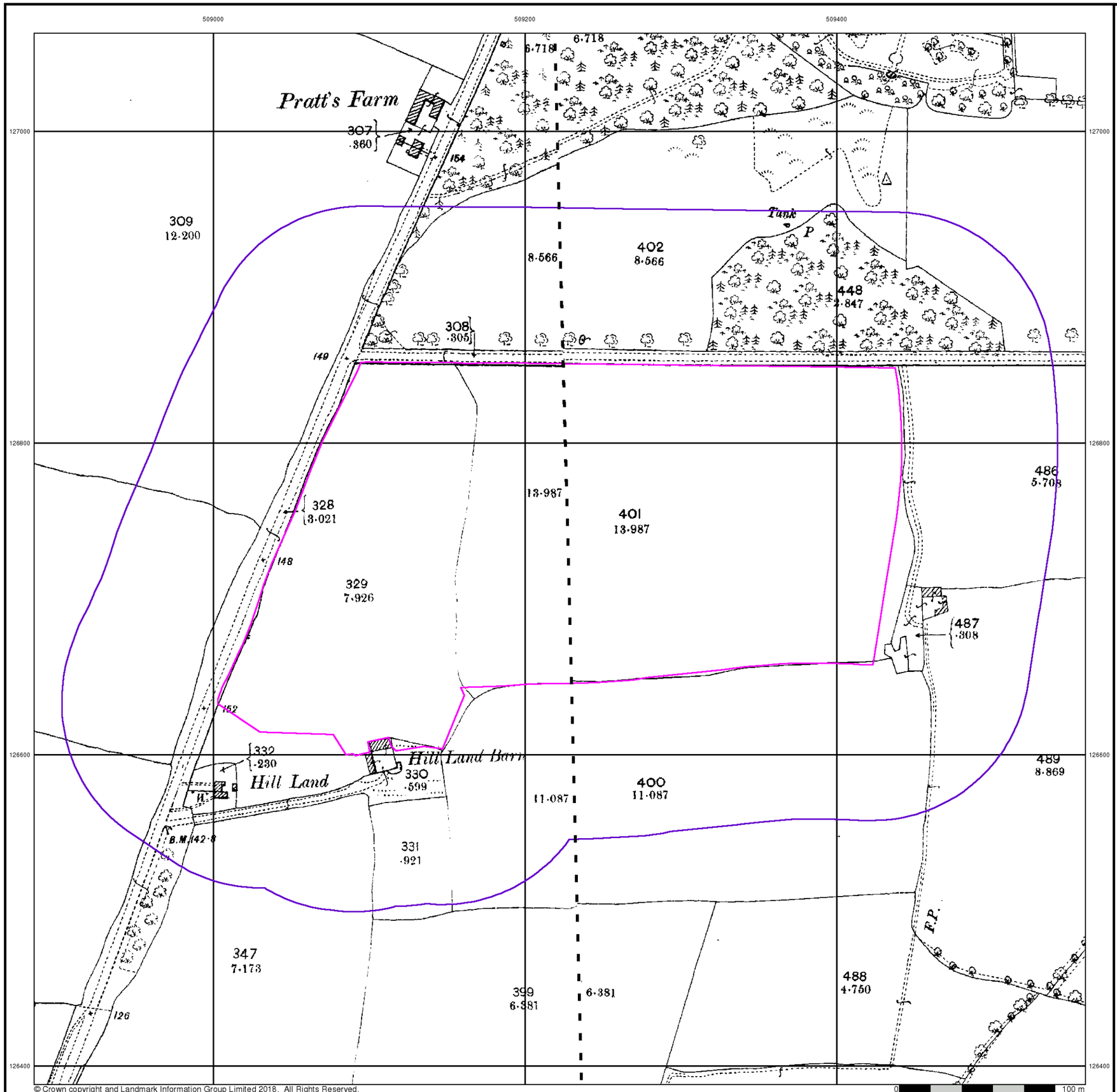

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Geo-Environmental

Sussex

Published 1897

Source map scale - 1:2,500

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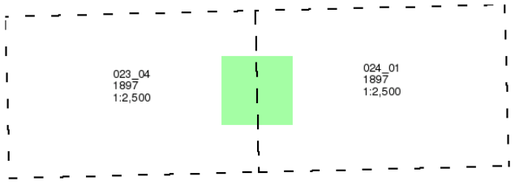
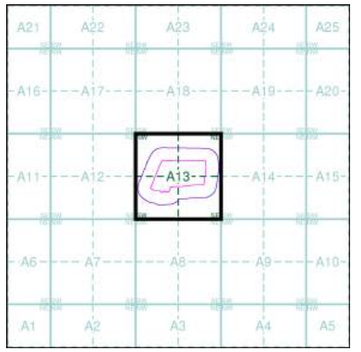


Historical Map - Segment A13



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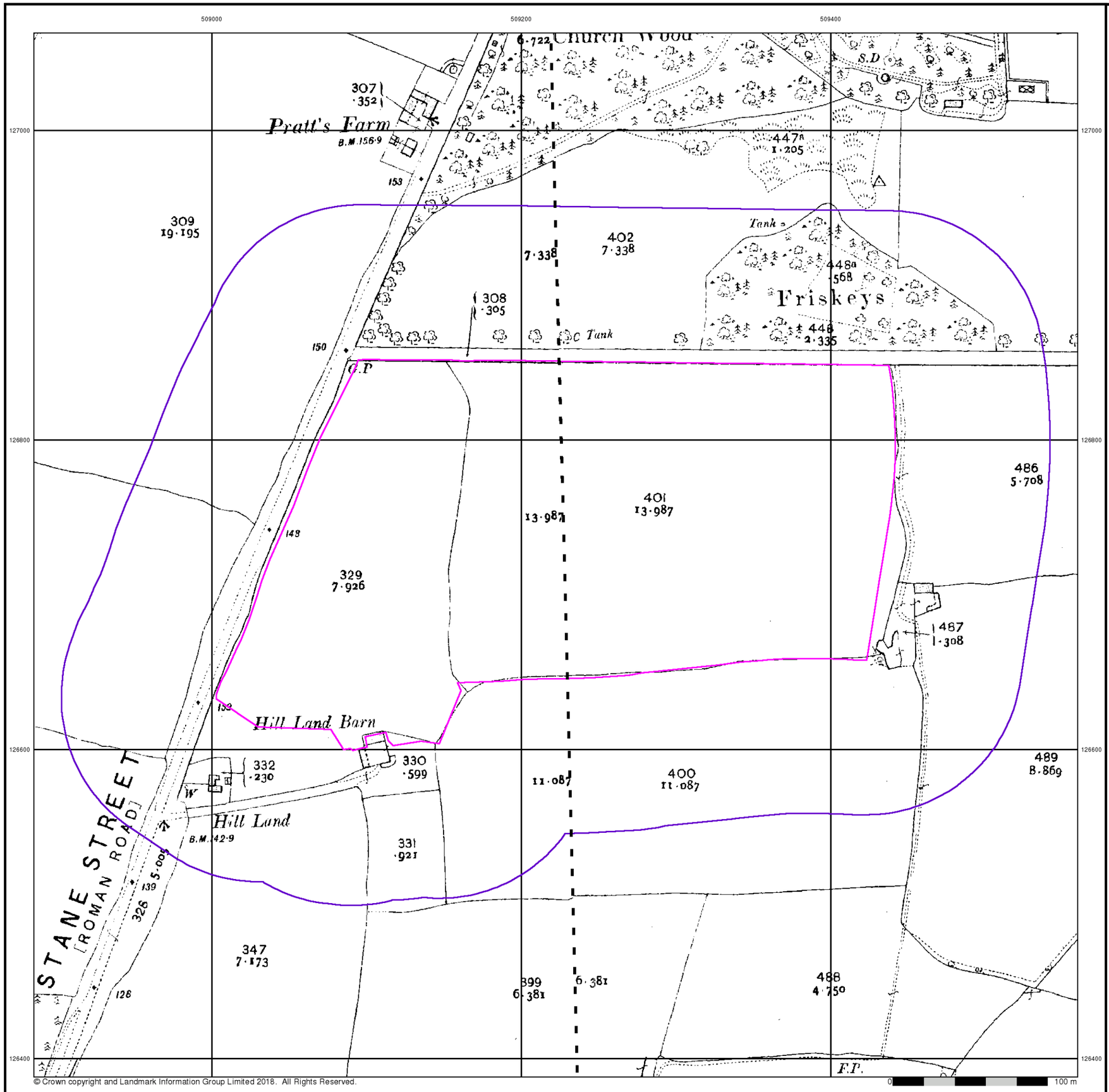

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Geo-Environmental

Sussex

Published 1911 - 1912

Source map scale - 1:2,500

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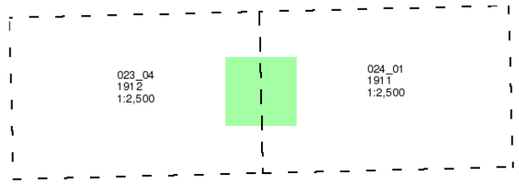
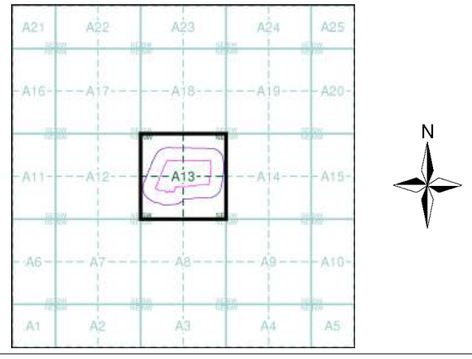
Map Name(s) and Date(s)



Historical Map - Segment A13



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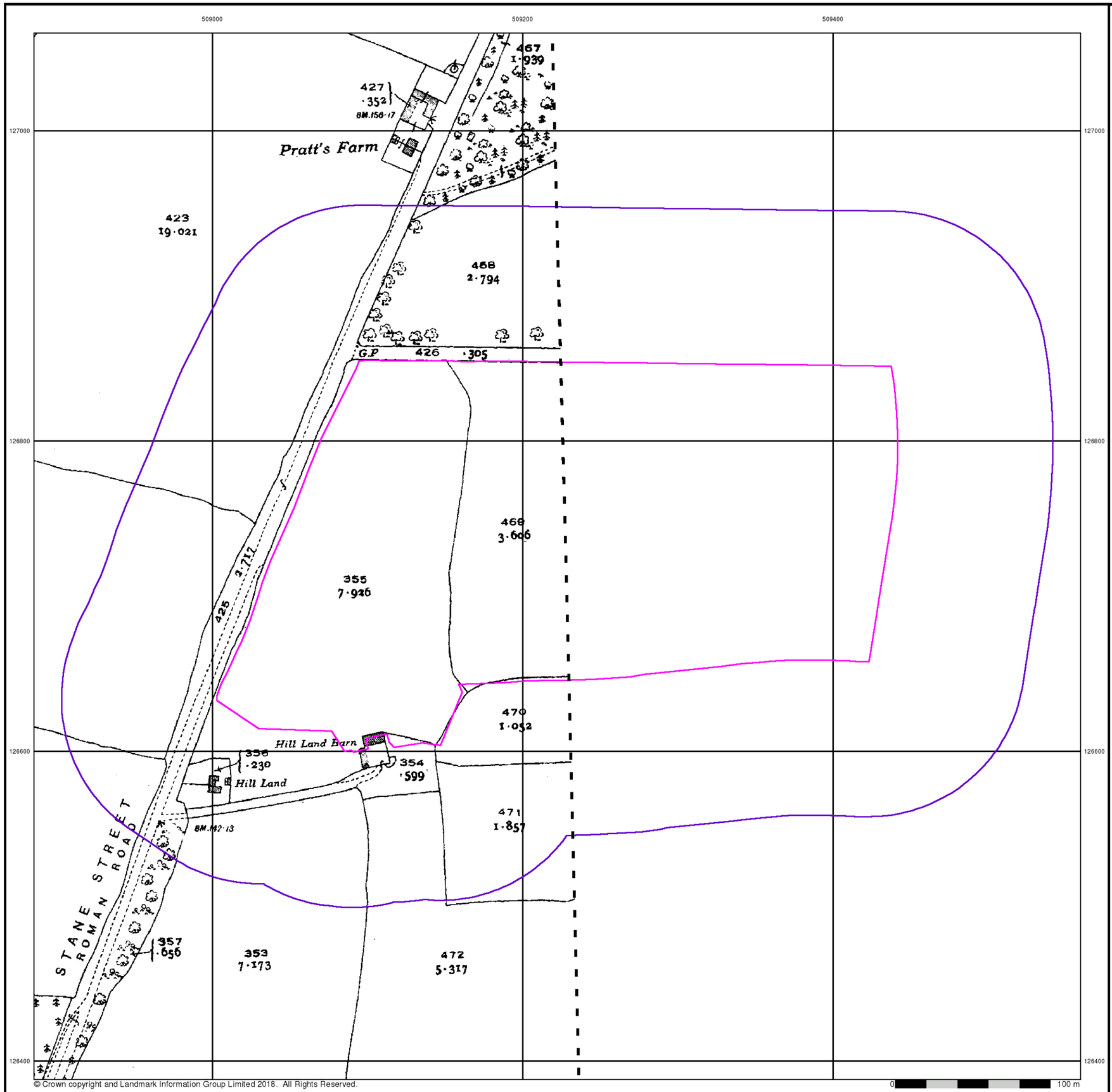

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Geo-Environmental

Sussex

Published 1939

Source map scale - 1:2,500

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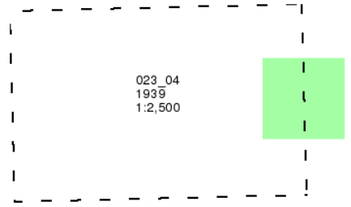
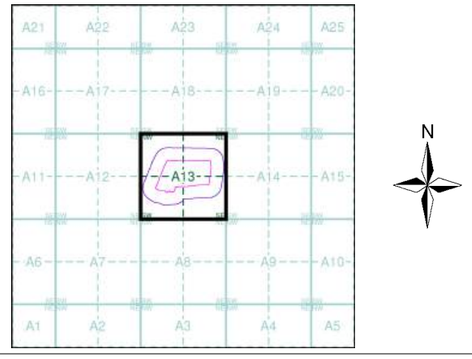


Historical Map - Segment A13



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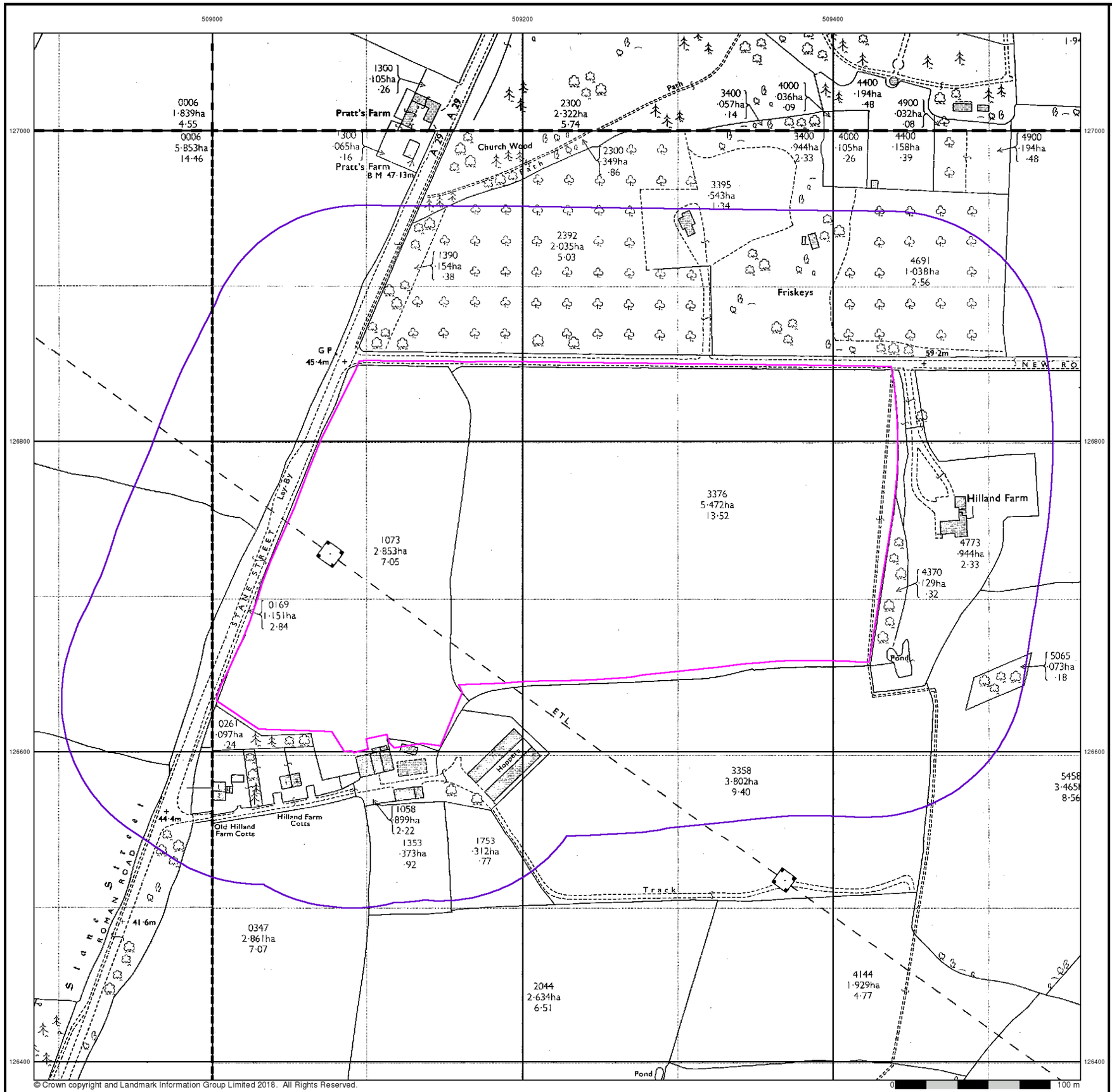

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Geo-Environmental

Ordnance Survey Plan

Published 1971 - 1972

Source map scale - 1:2,500

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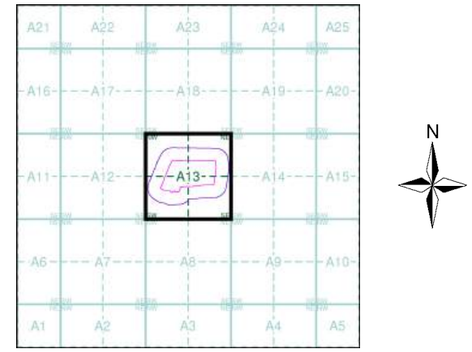
Map Name(s) and Date(s)

TQ0827 1972 1:2,500	TQ0927 1972 1:2,500
TQ0826 1971 1:2,500	TQ0926 1971 1:2,500

Historical Map - Segment A13



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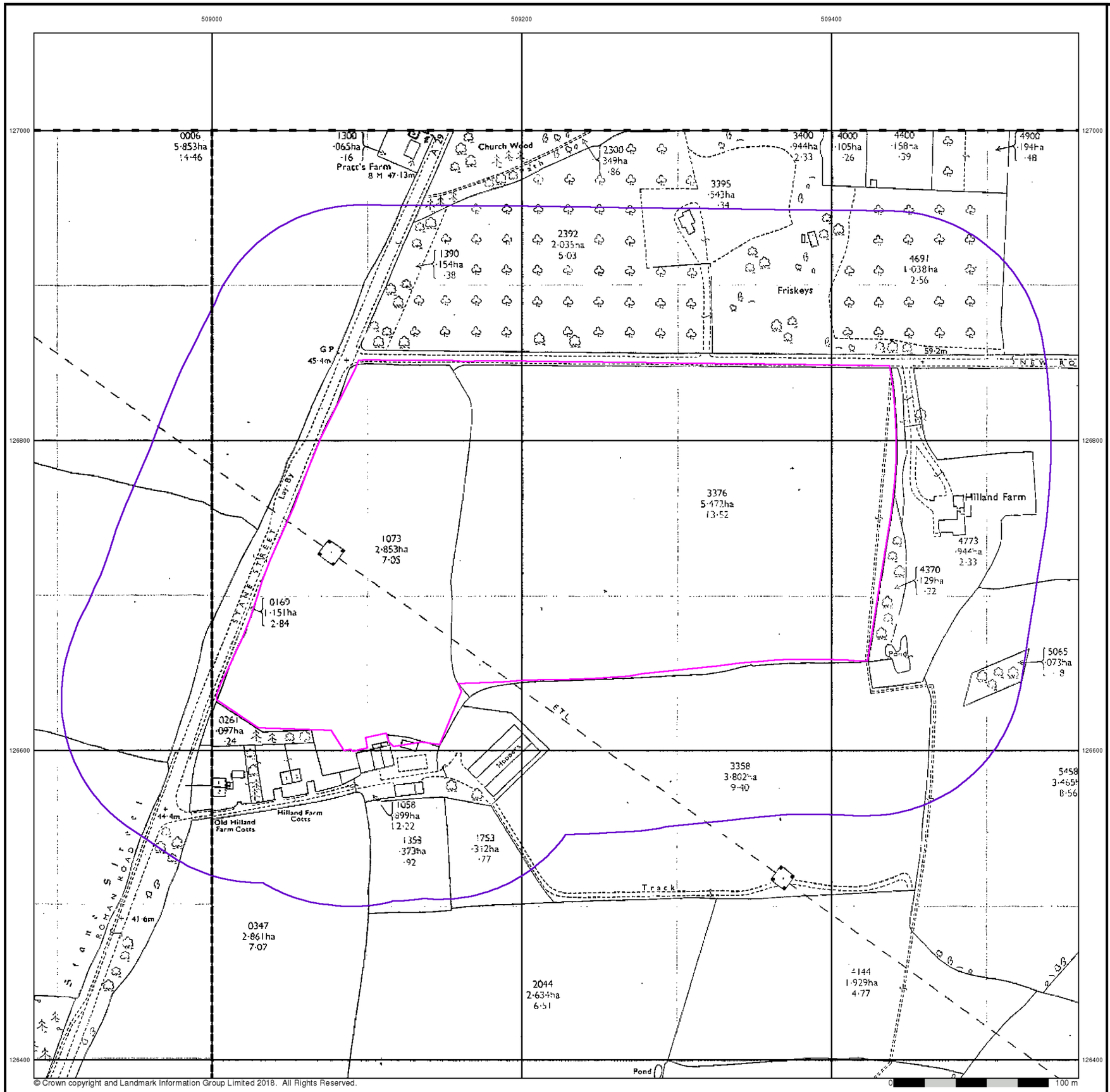


Geo-Environmental

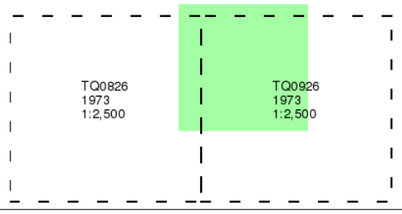
Supply of Unpublished Survey Information

Published 1973

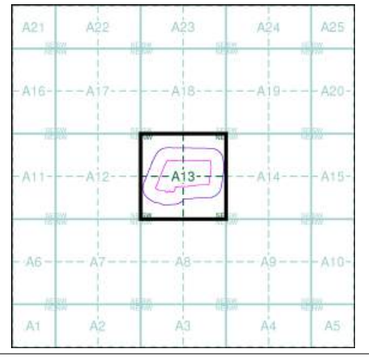
Source map scale - 1:2,500

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a `work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



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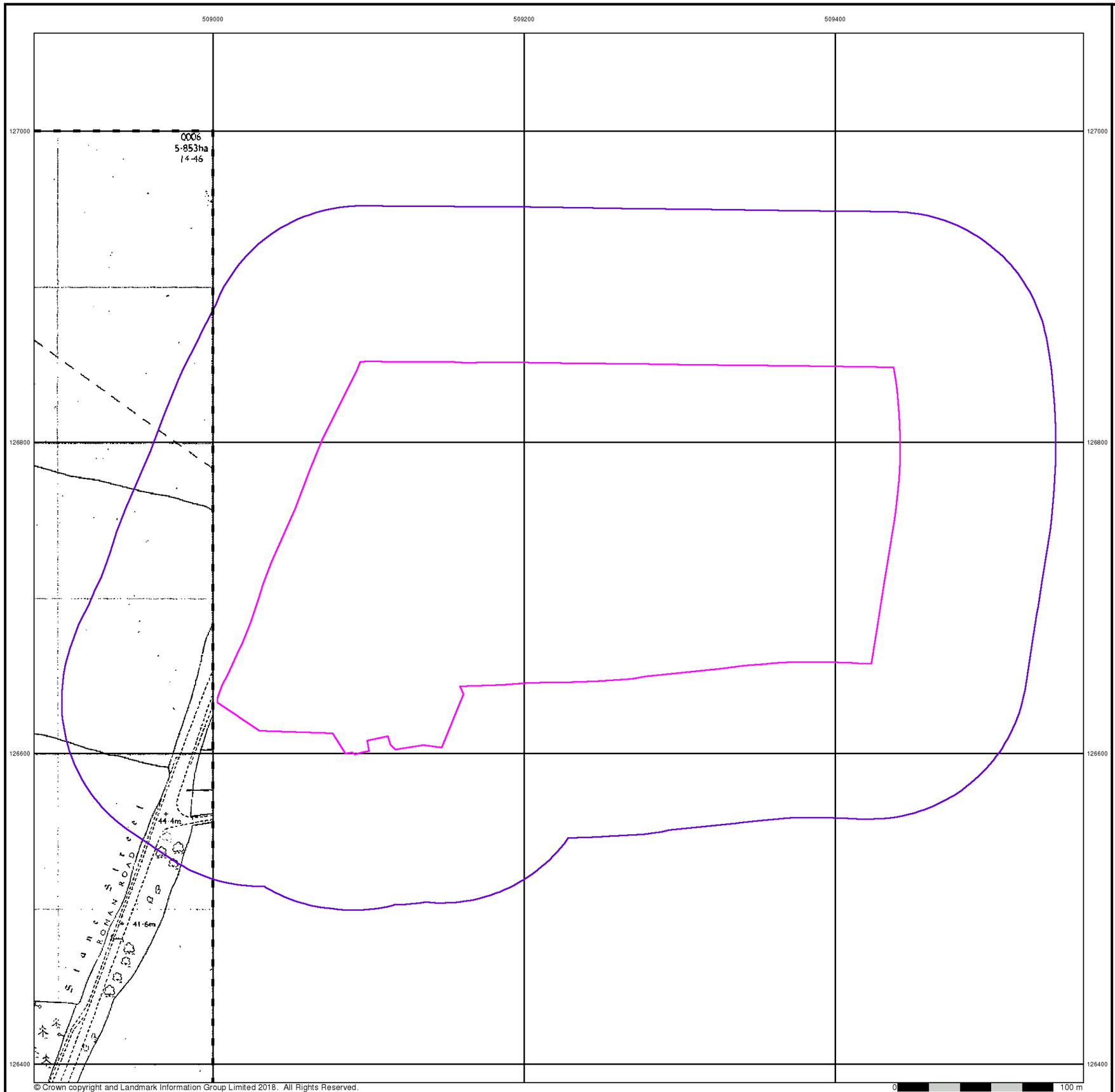

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Geo-Environmental

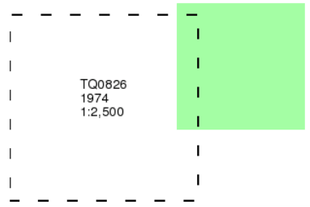
Supply of Unpublished Survey Information

Published 1974

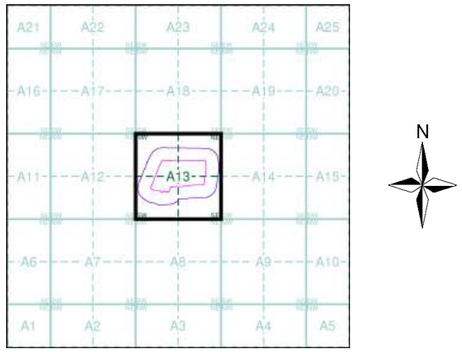
Source map scale - 1:2,500

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a `work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	175723966_1_1
Customer Ref:	GE17451
National Grid Reference:	509230, 126730
Slice:	A
Site Area (Ha):	8.28
Search Buffer (m):	100

Site Details

Hilland Farm, Stane Street, BILLINGSHURST, RH14 9HN

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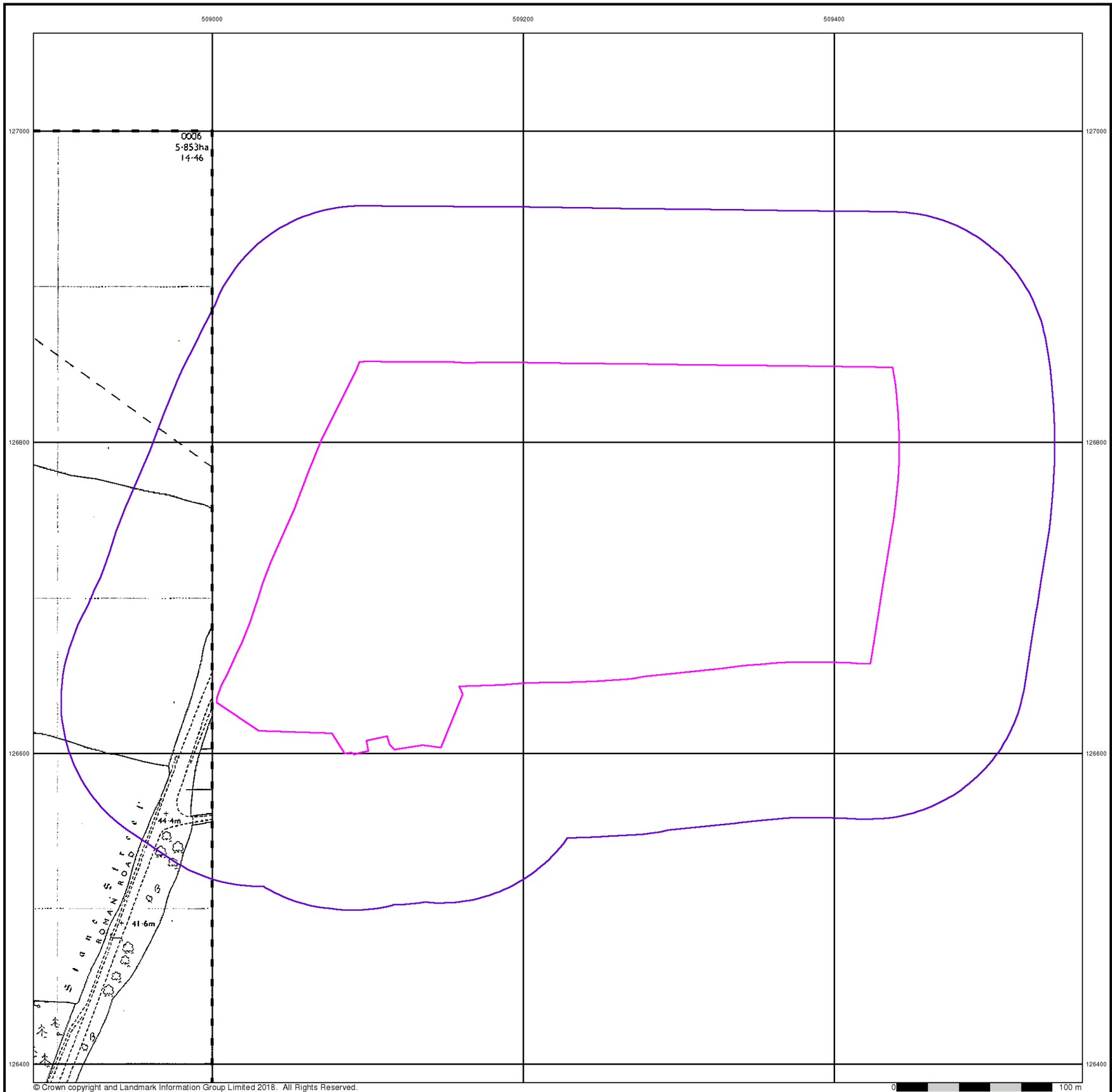

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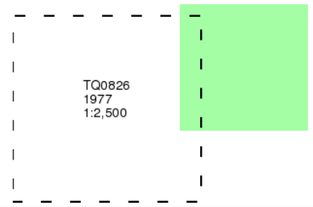
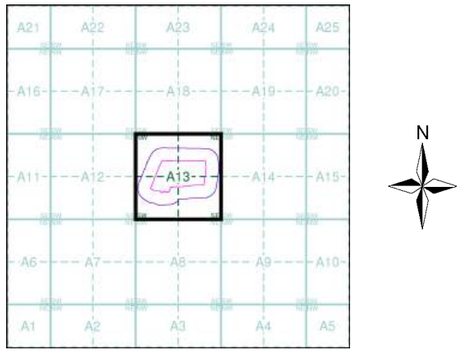
Geo-Environmental
Additional SIMs
Published 1977
Source map scale - 1:2,500

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)



Historical Map - Segment A13



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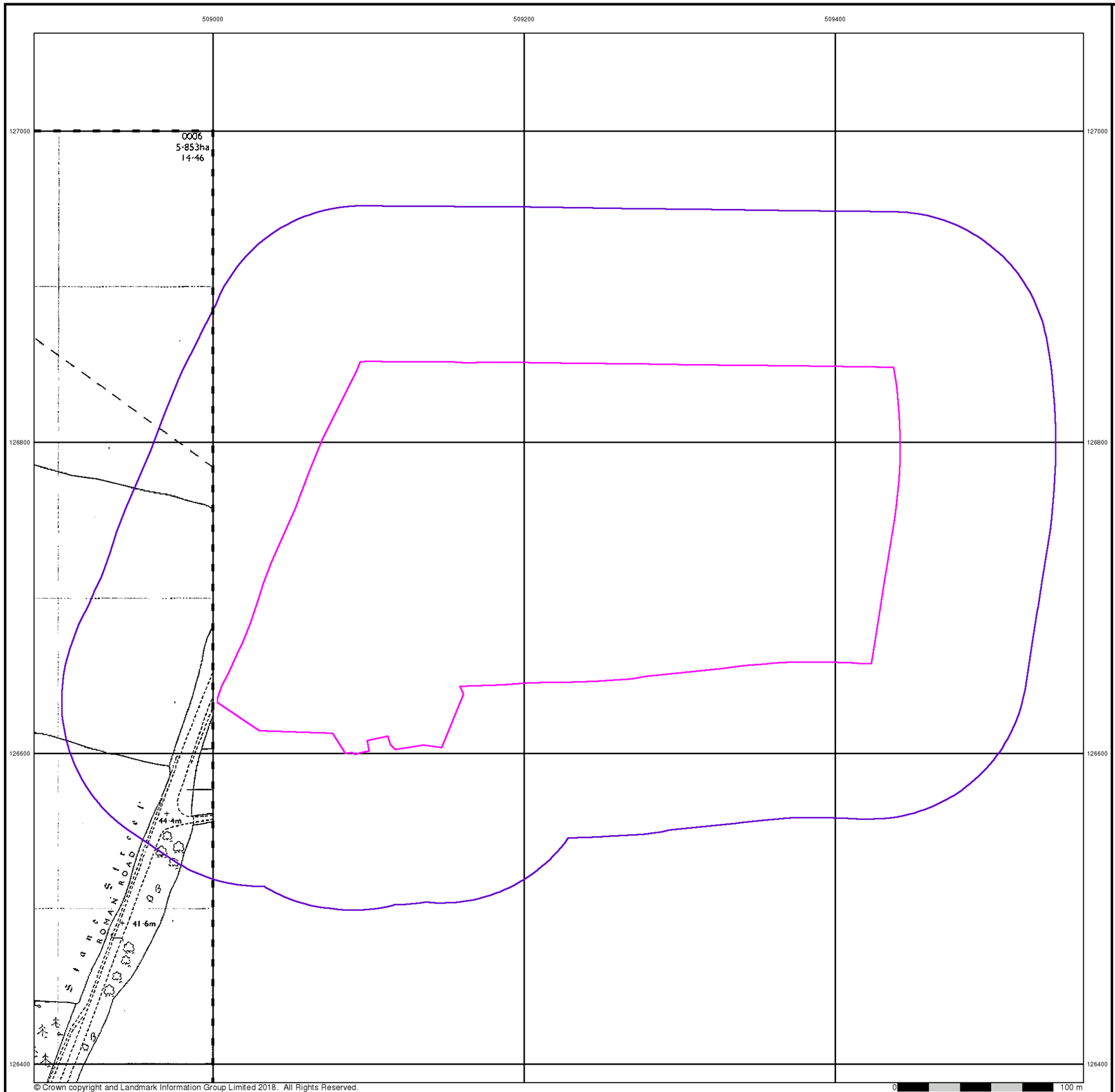

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Geo-Environmental

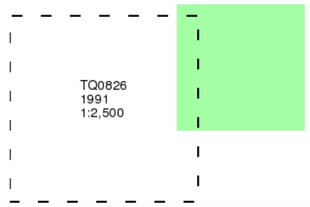
Additional SIMs

Published 1991

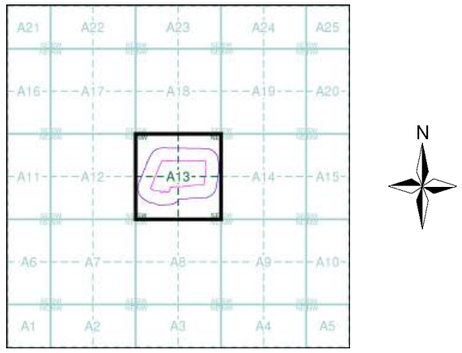
Source map scale - 1:2,500

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)



Historical Map - Segment A13



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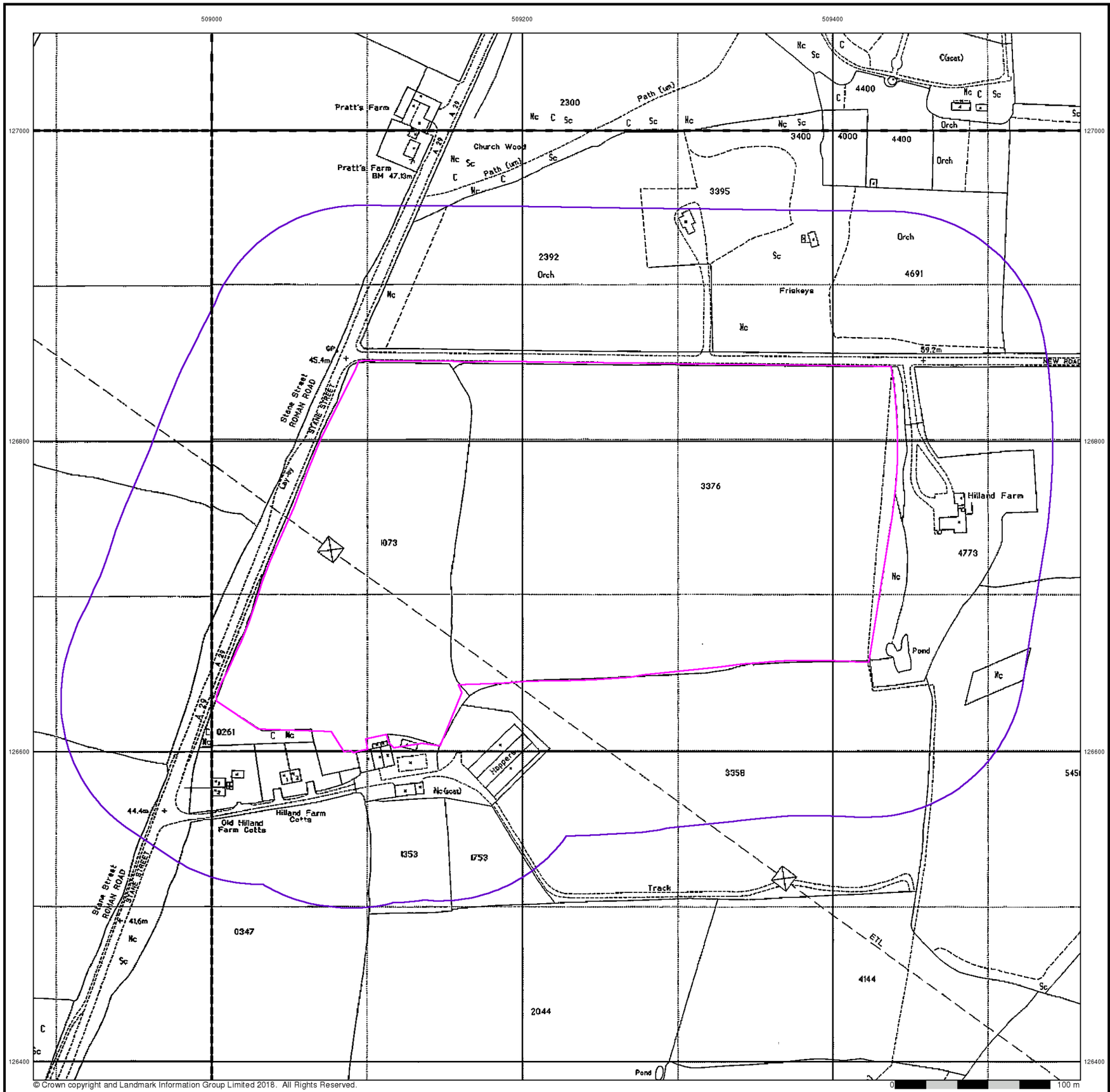

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Geo-Environmental

Large-Scale National Grid Data

Published 1993

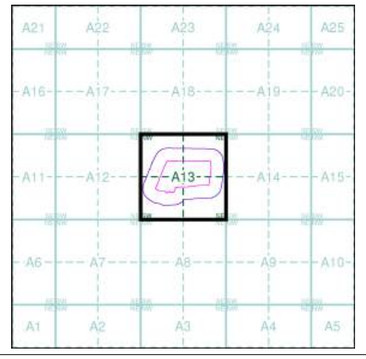
Source map scale - 1:2,500

'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)

TQ0827 1993 1:2,500	TQ0927 1993 1:2,500
TQ0826 1993 1:2,500	TQ0926 1993 1:2,500

Historical Map - Segment A13



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Geo-Environmental

Large-Scale National Grid Data

Published 1996

Source map scale - 1:2,500

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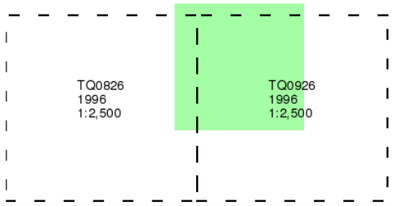
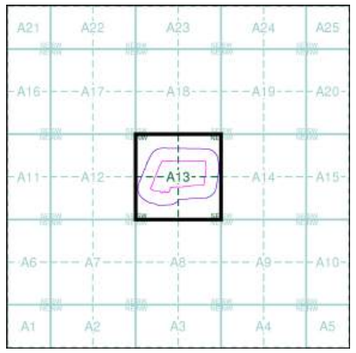


Historical Map - Segment A13



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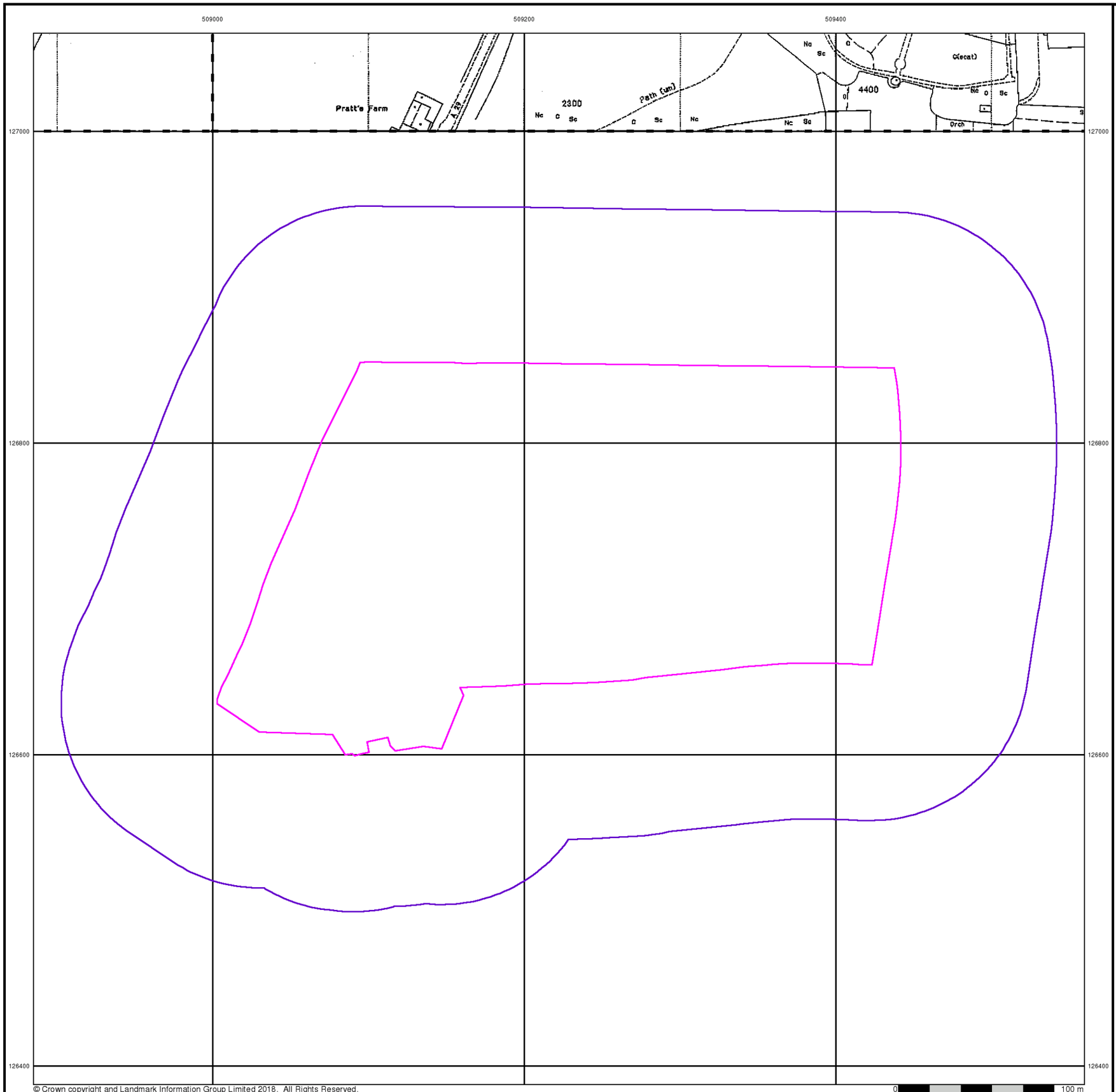

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Geo-Environmental

Large-Scale National Grid Data

Published 1996

Source map scale - 1:2,500

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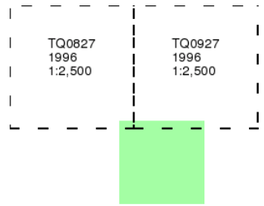
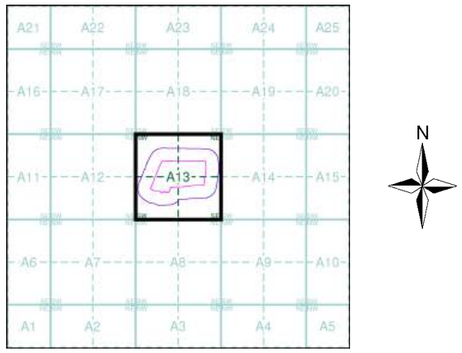


Historical Map - Segment A13



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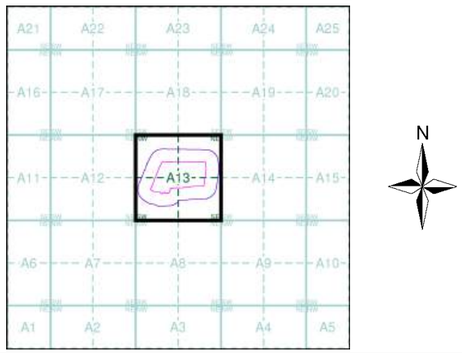
Geo-Environmental
Historical Aerial Photography
Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



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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

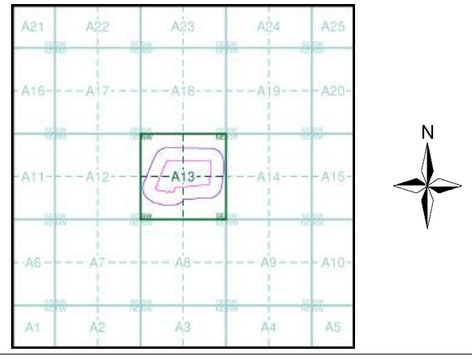
1:10,000 Raster Mapping

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

Geo-Environmental
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Sussex	1:10,560	1879 - 1880	2
Sussex	1:10,560	1898	3
Sussex	1:10,560	1913 - 1914	4
Sussex	1:10,560	1913	5
Historical Aerial Photography	1:10,560	1947	6
Sussex	1:10,560	1952	7
Ordnance Survey Plan	1:10,000	1961	8
Ordnance Survey Plan	1:10,000	1975	9
Ordnance Survey Plan	1:10,000	1982	10
10K Raster Mapping	1:10,000	2000	11
10K Raster Mapping	1:10,000	2006	12
VectorMap Local	1:10,000	2018	13

Historical Map - Slice A



Order Details

Order Number: 175723966_1_1
Customer Ref: GE17451
National Grid Reference: 509230, 126730
Slice: A
Site Area (Ha): 8.28
Search Buffer (m): 1000

Site Details

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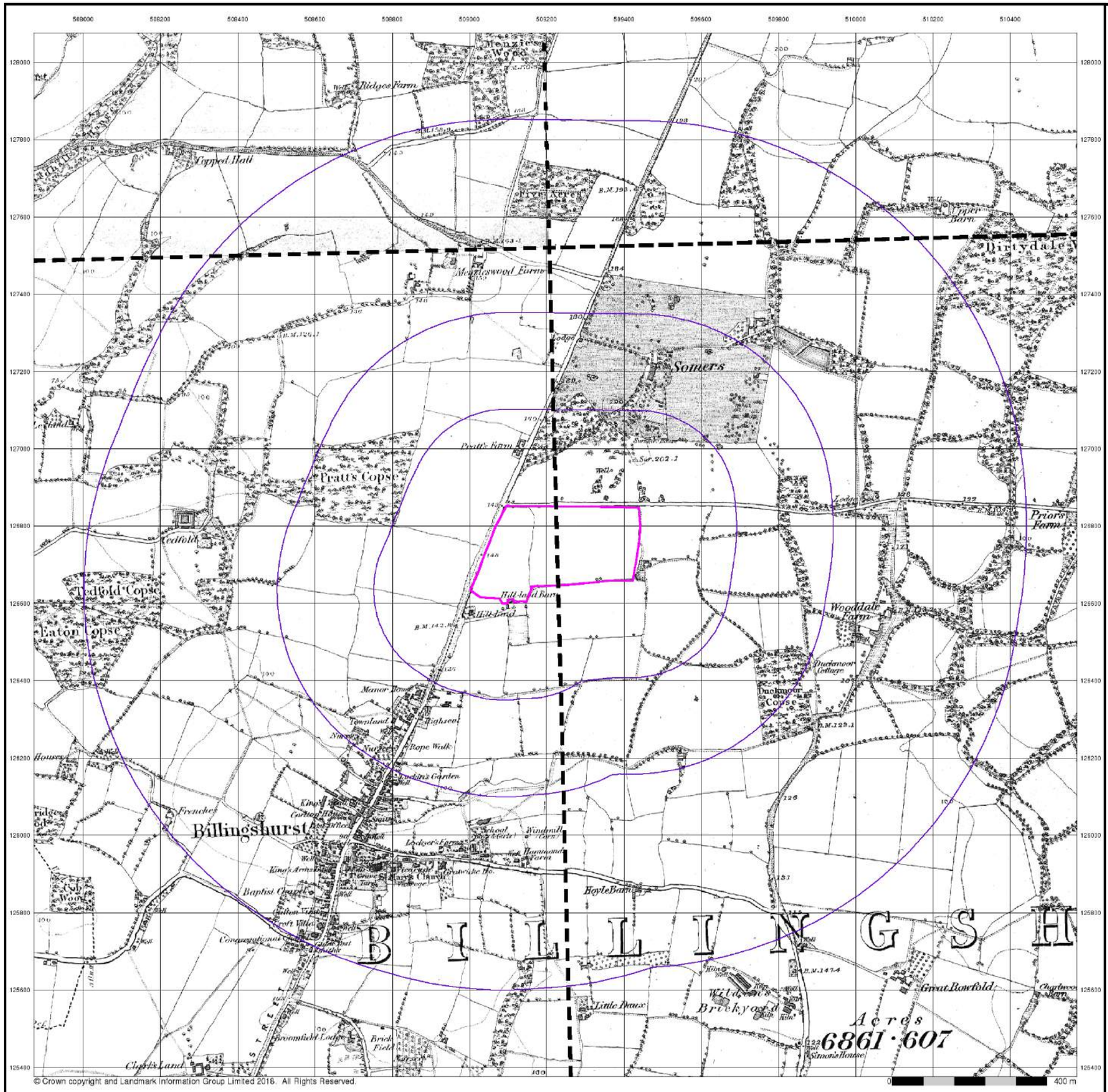

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Geo-Environmental

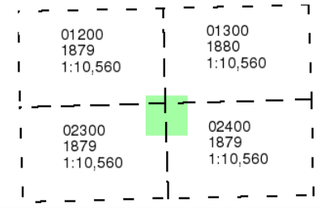
Sussex

Published 1879 - 1880

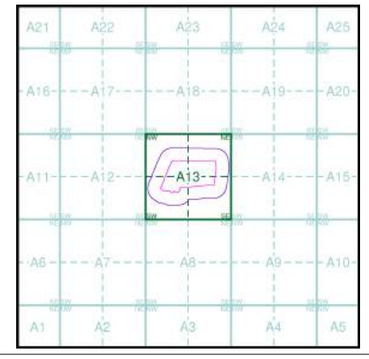
Source map scale - 1:10,560

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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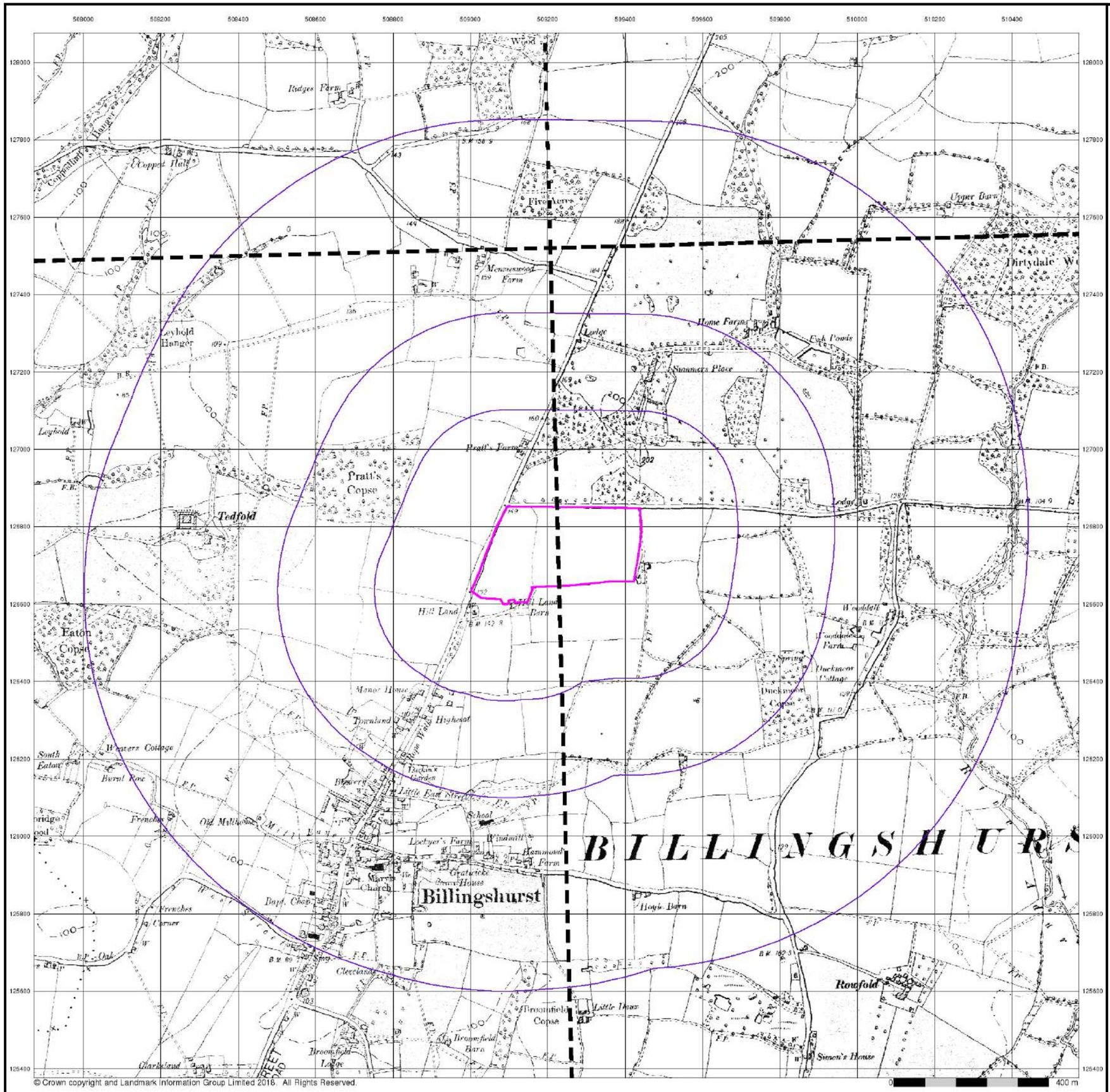

Geo-Environmental

Sussex

Published 1898

Source map scale - 1:10,560

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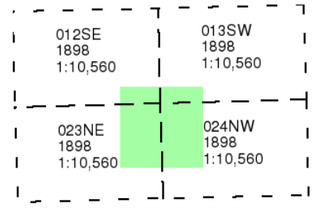
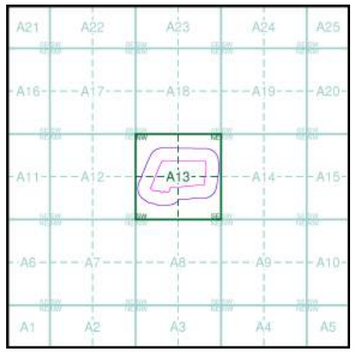


Historical Map - Slice A



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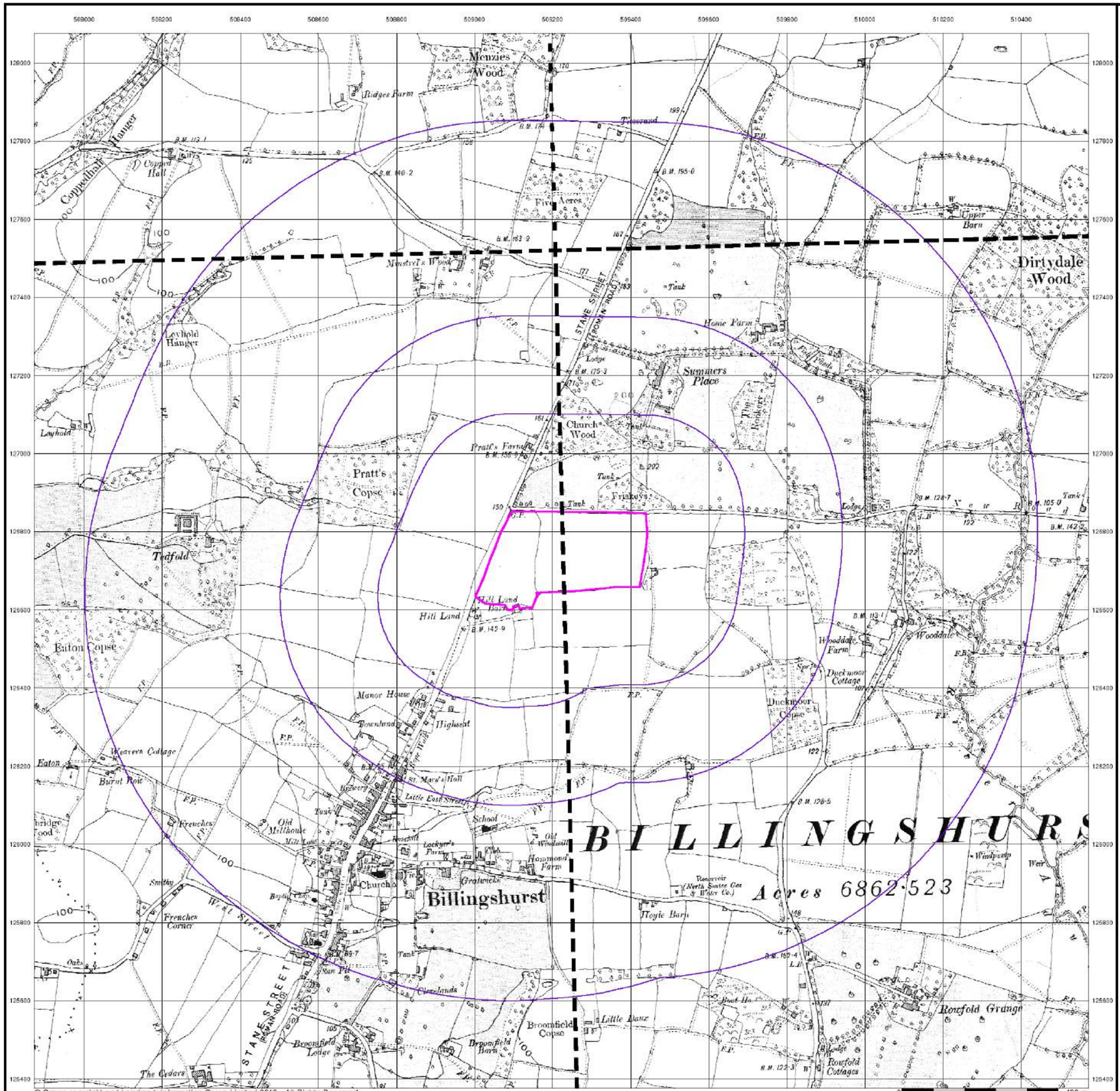

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Geo-Environmental

Sussex

Published 1913 - 1914

Source map scale - 1:10,560

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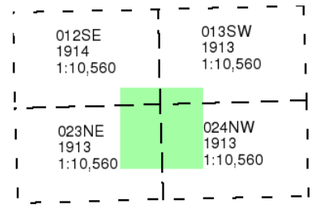
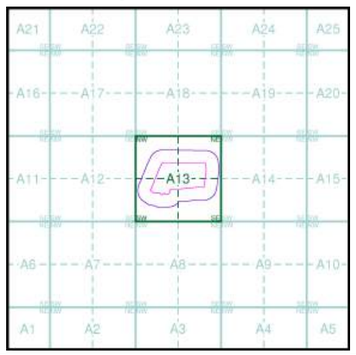


Historical Map - Slice A



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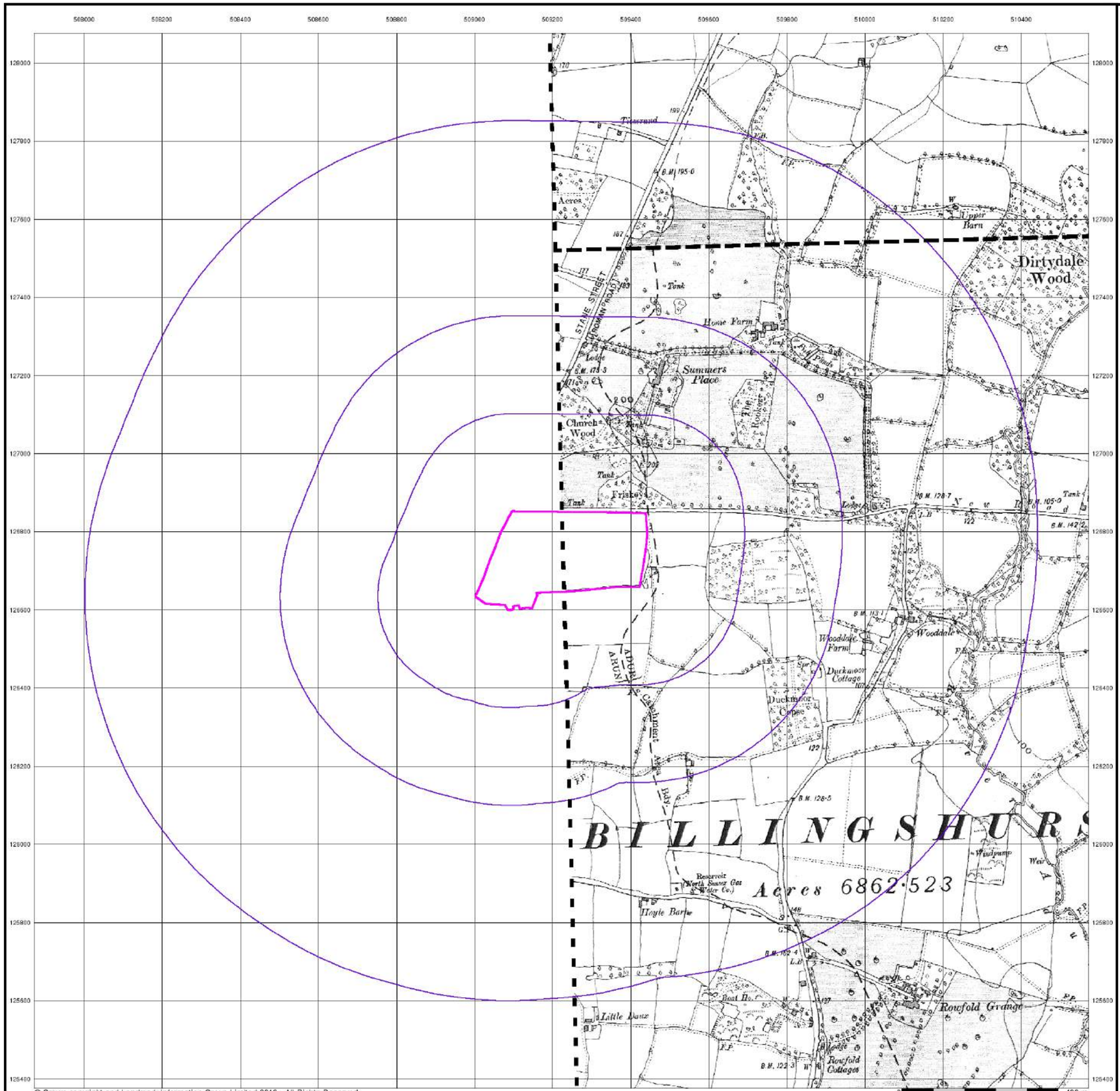


Geo-Environmental

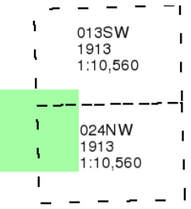
Sussex

Published 1913

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)



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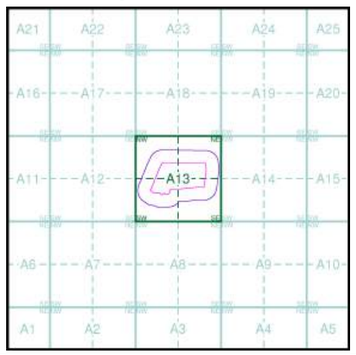

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Customer Ref:	GE17451
National Grid Reference:	509230, 126730
Slice:	A
Site Area (Ha):	8.28
Search Buffer (m):	1000

Site Details

Hilland Farm, Stane Street, BILLINGSHURST, RH14 9HN

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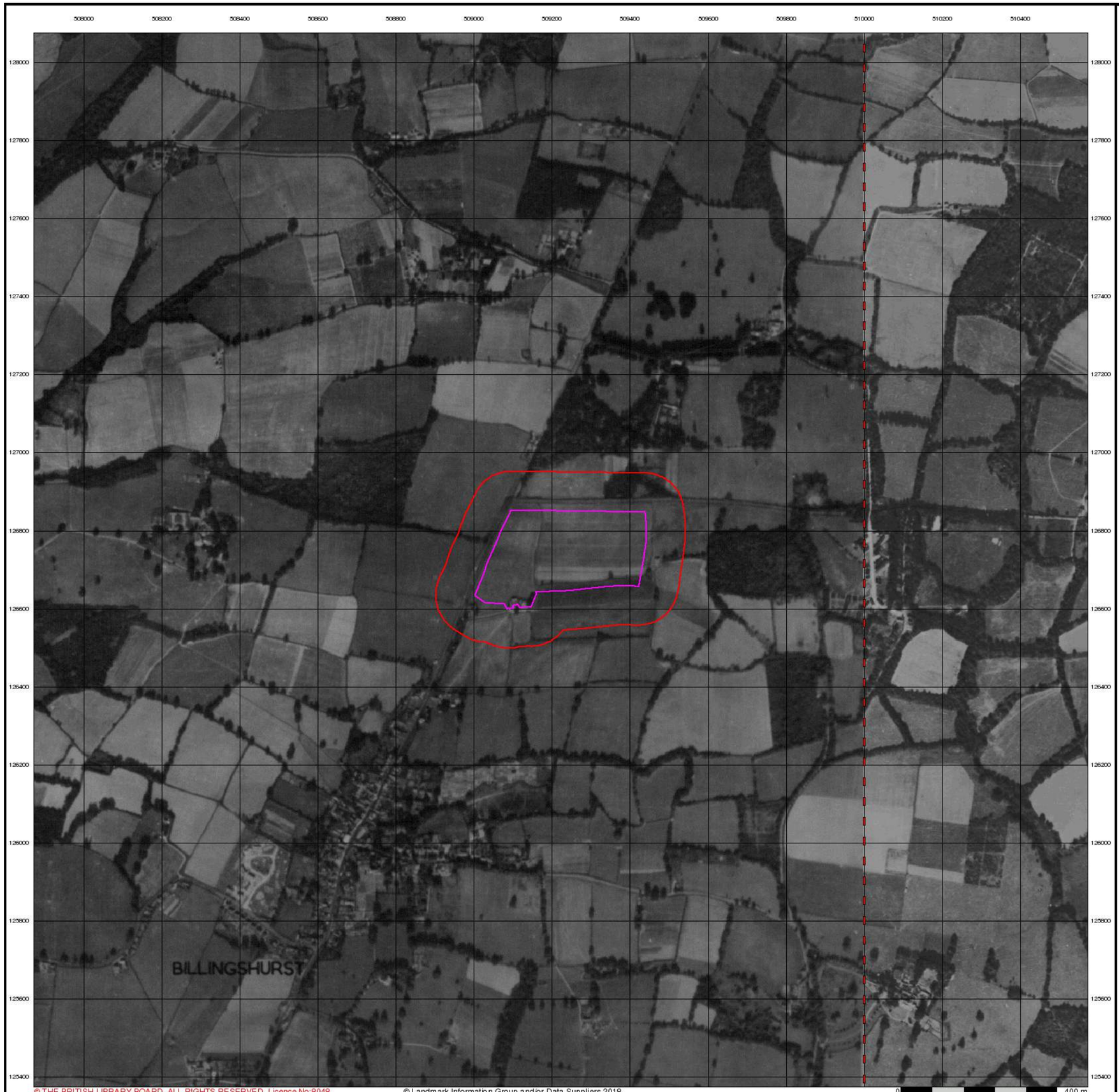

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0 400 m

Geo-Environmental

Historical Aerial Photography

Published 1947

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.

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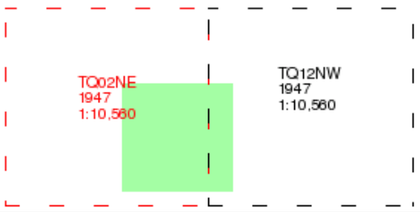
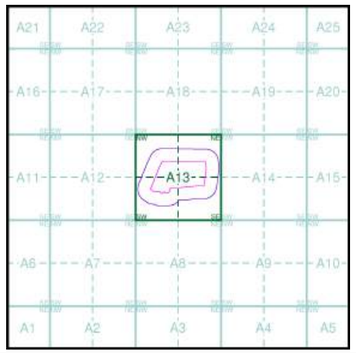
Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



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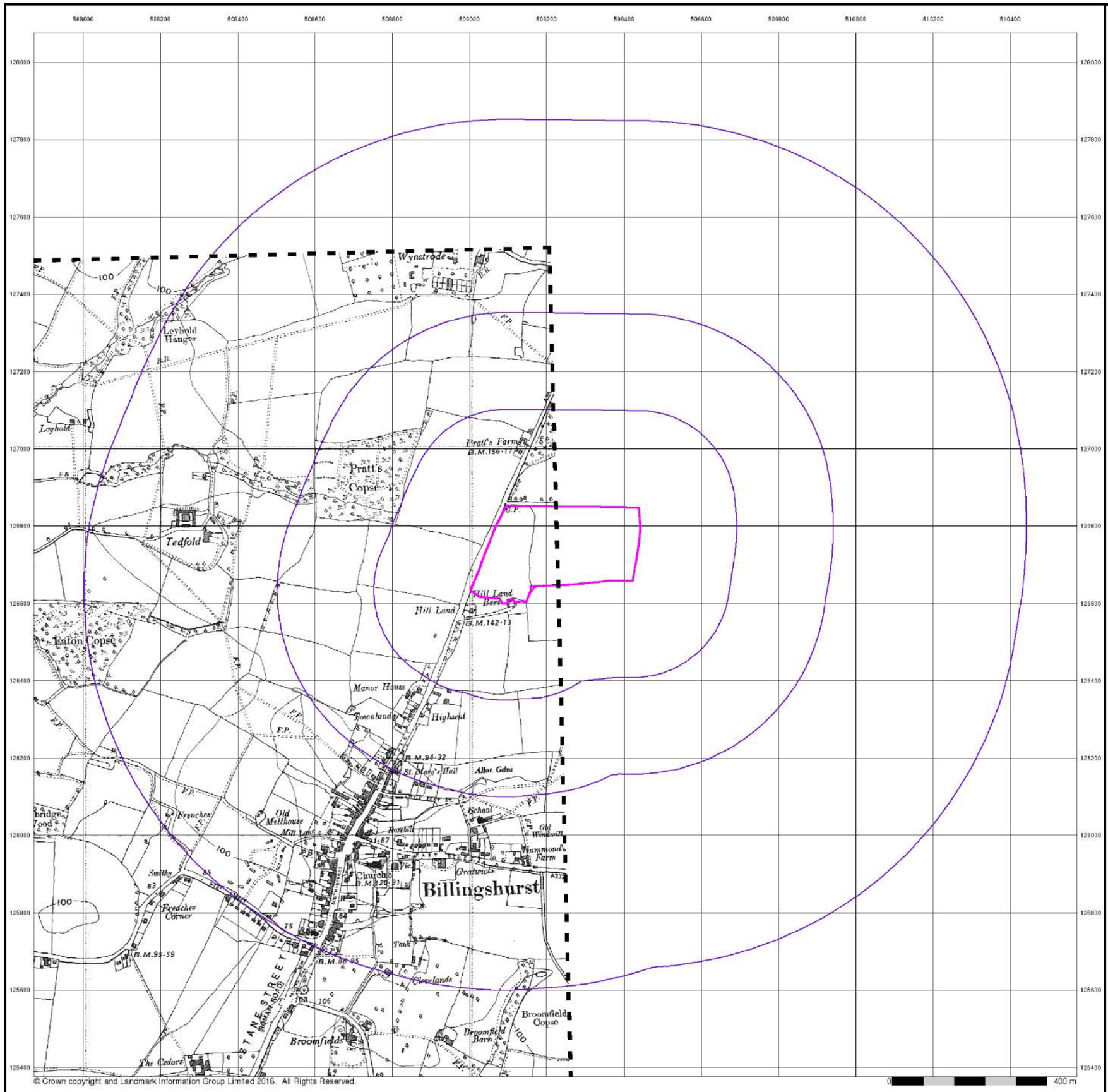

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Geo-Environmental

Sussex

Published 1952

Source map scale - 1:10,560

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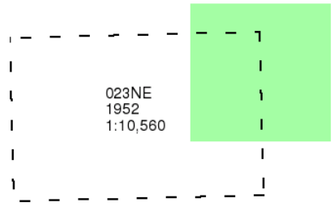
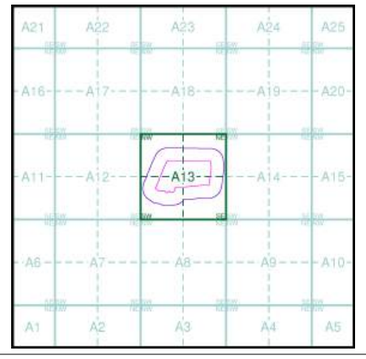
Map Name(s) and Date(s)



Historical Map - Slice A



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Customer Ref:	GE17451
National Grid Reference:	509230, 126730
Slice:	A
Site Area (Ha):	8.28
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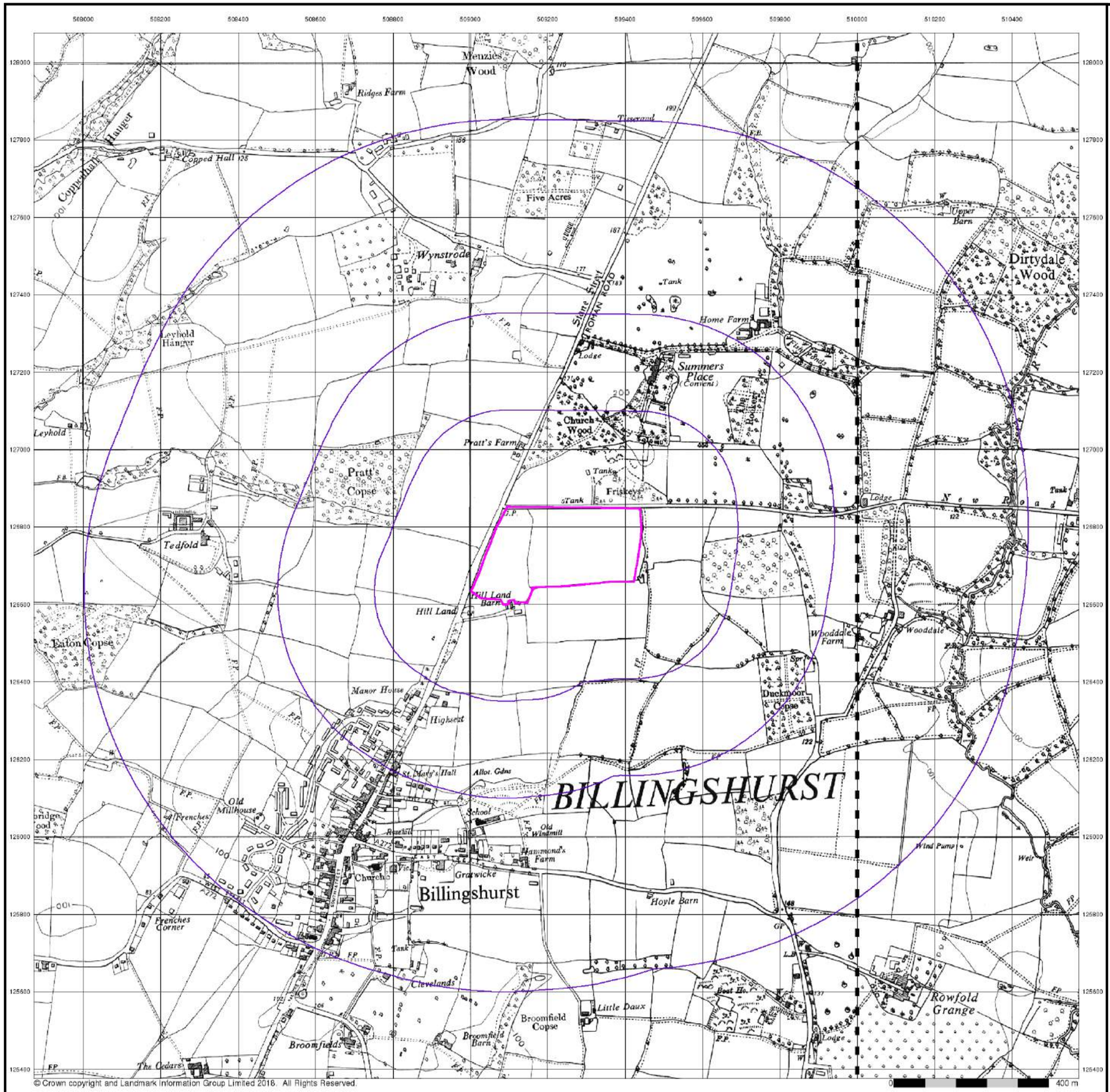

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Geo-Environmental

Ordnance Survey Plan

Published 1961

Source map scale - 1:10,000

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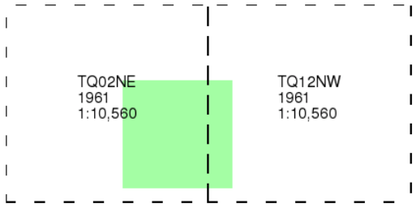
Map Name(s) and Date(s)



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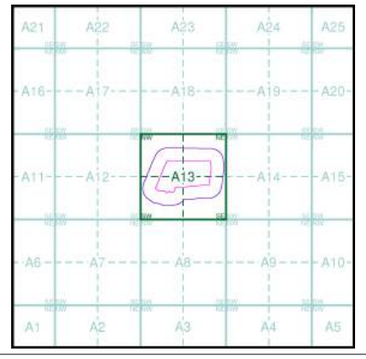

Order Details

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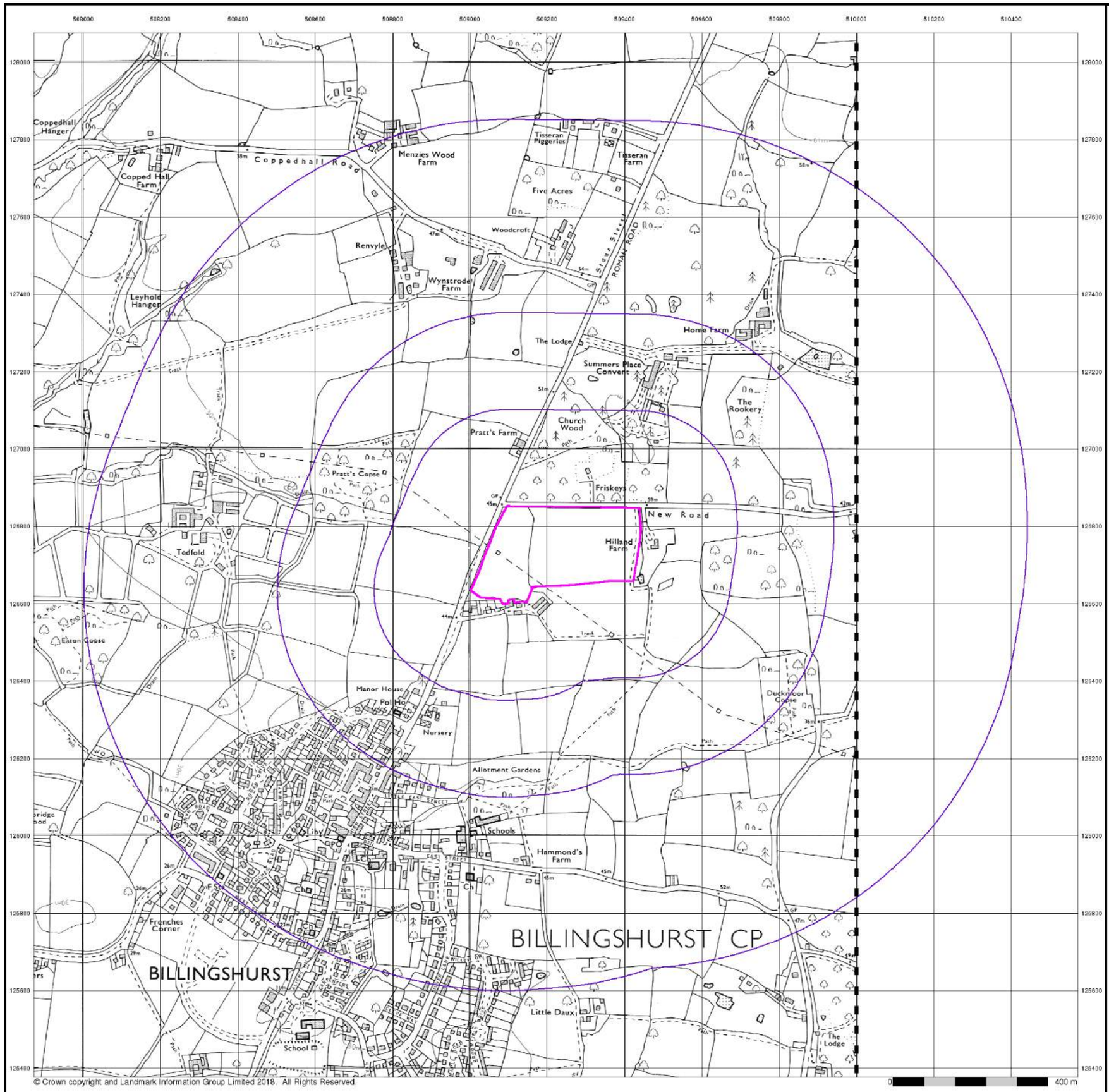

Geo-Environmental

Ordnance Survey Plan

Published 1975

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.

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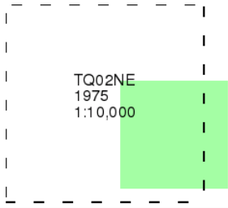
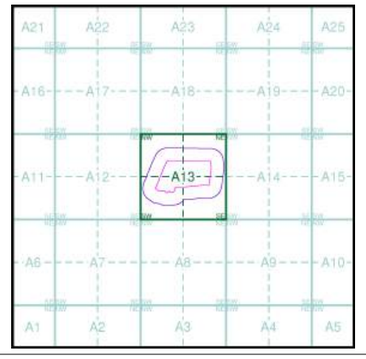


Historical Map - Slice A



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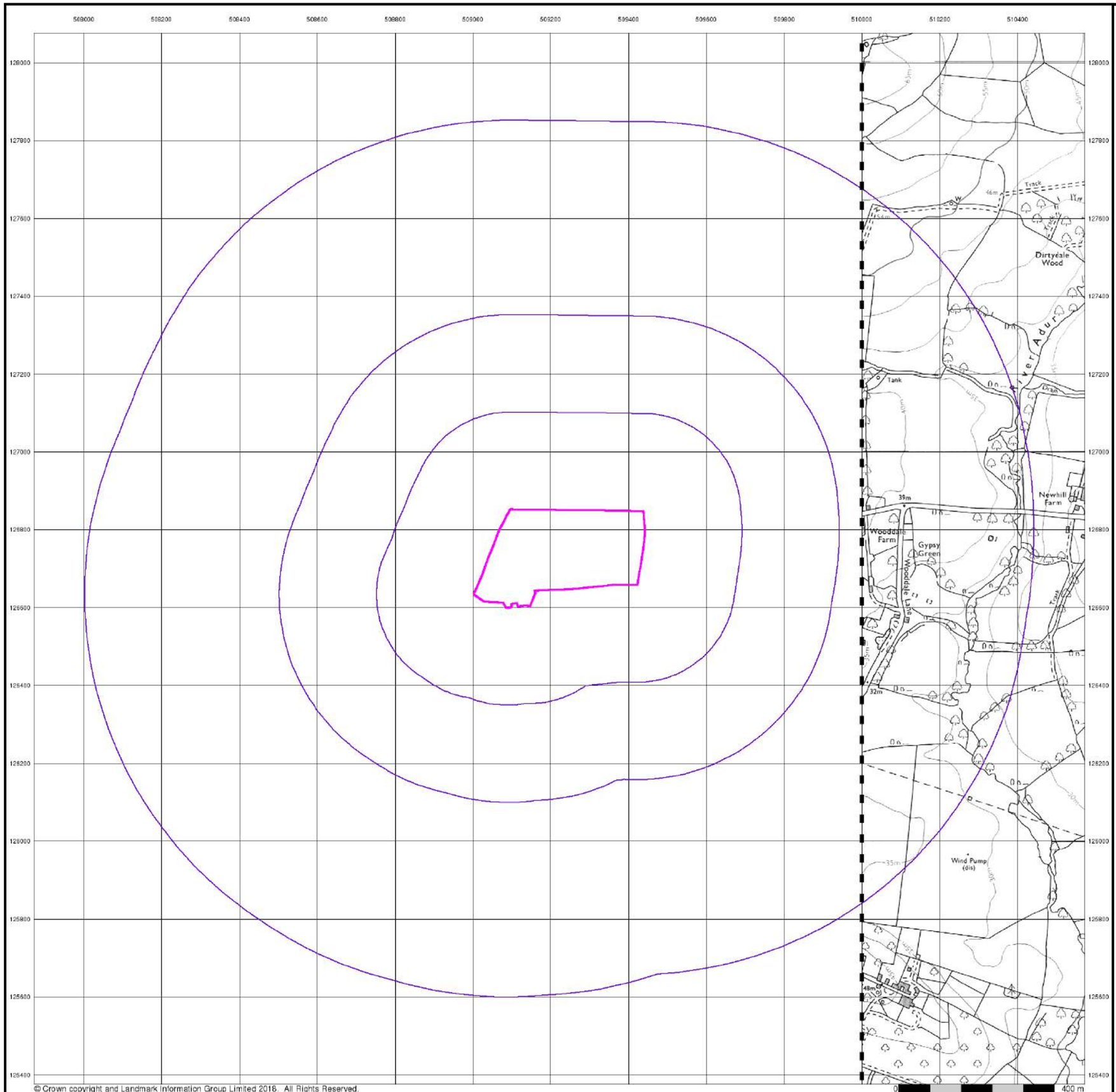

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Geo-Environmental

Ordnance Survey Plan

Published 1982

Source map scale - 1:10,000

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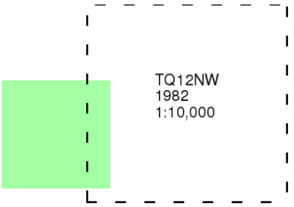
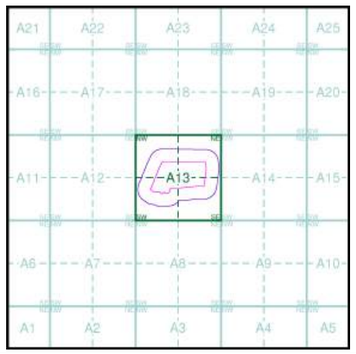


Historical Map - Slice A



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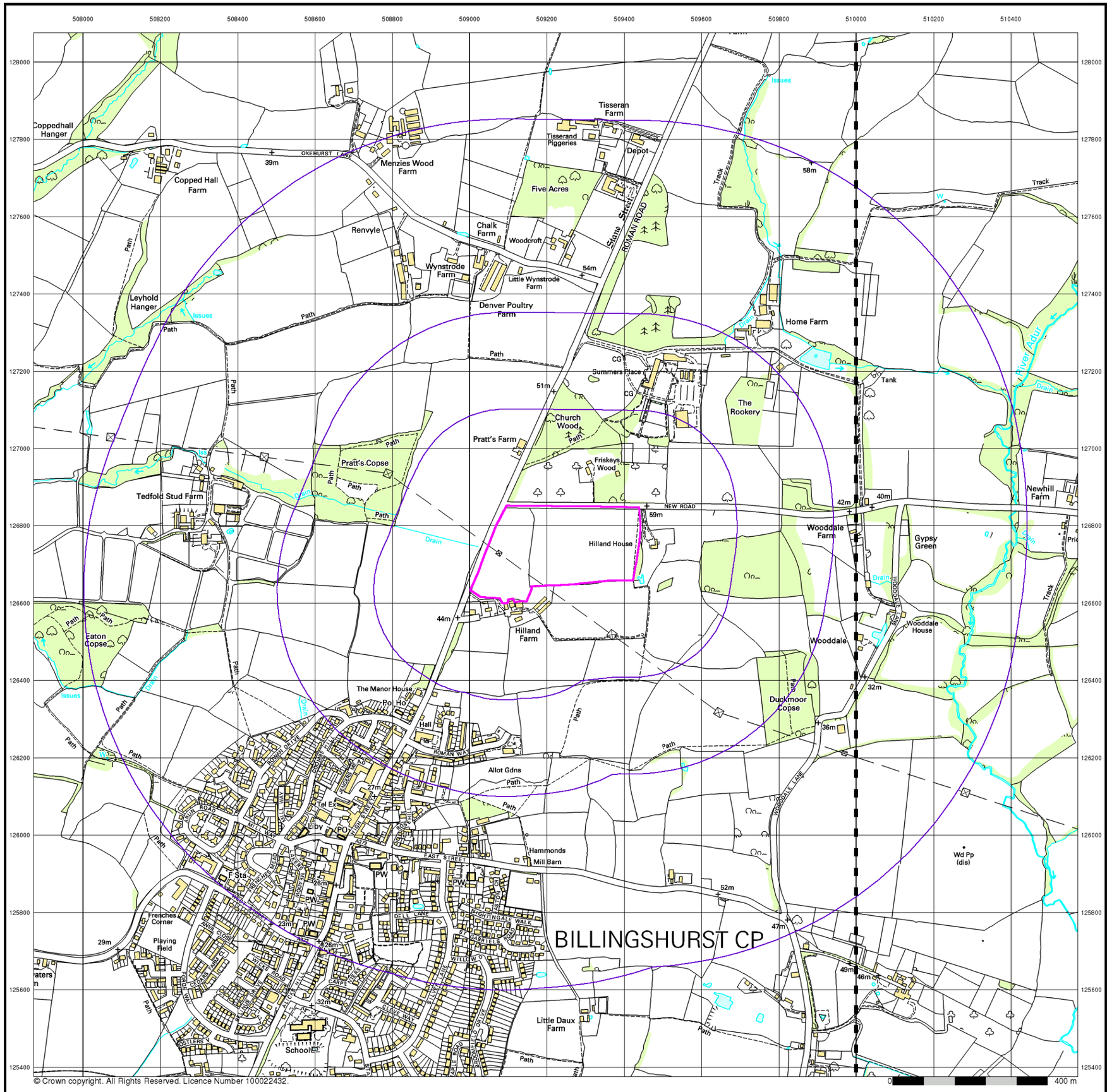


Geo-Environmental

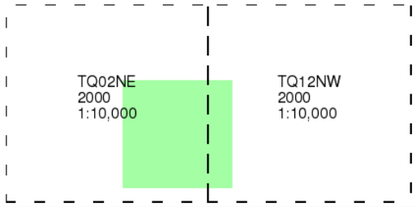
10k Raster Mapping

Published 2000

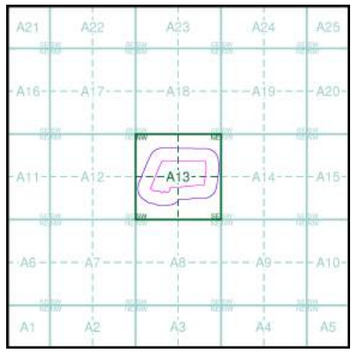
Source map scale - 1:10,000

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)



Historical Map - Slice A



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Site Details

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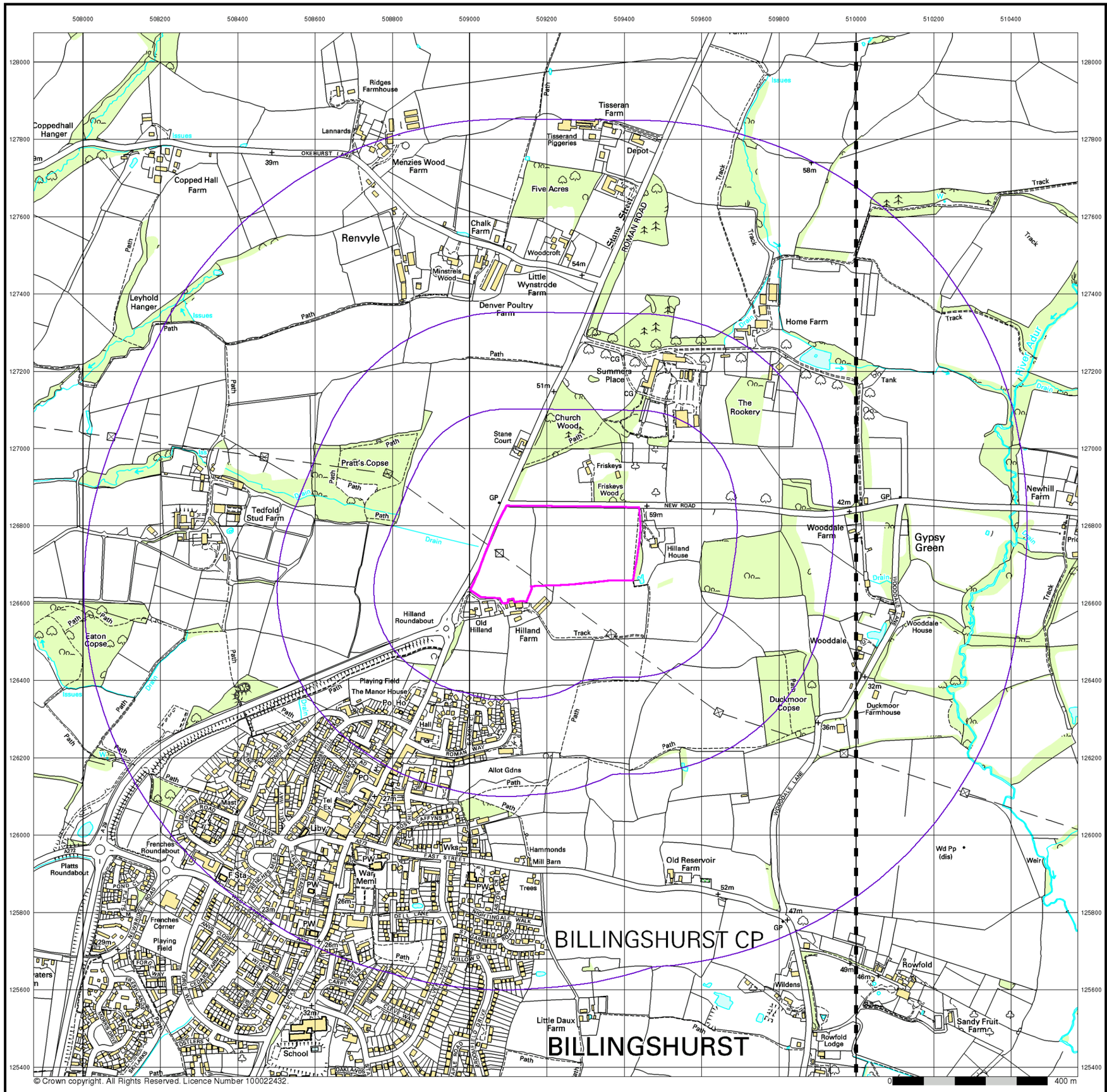

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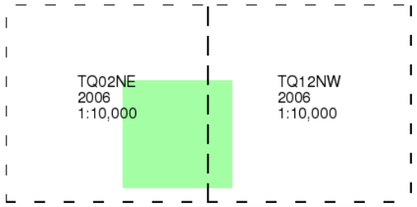
Geo-Environmental
10k Raster Mapping
Published 2006
Source map scale - 1:10,000

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)



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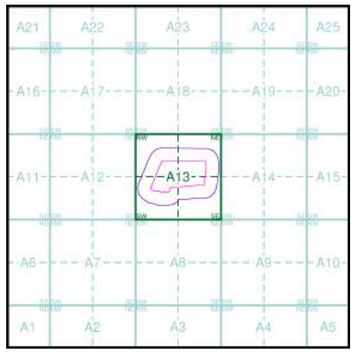

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Site Details

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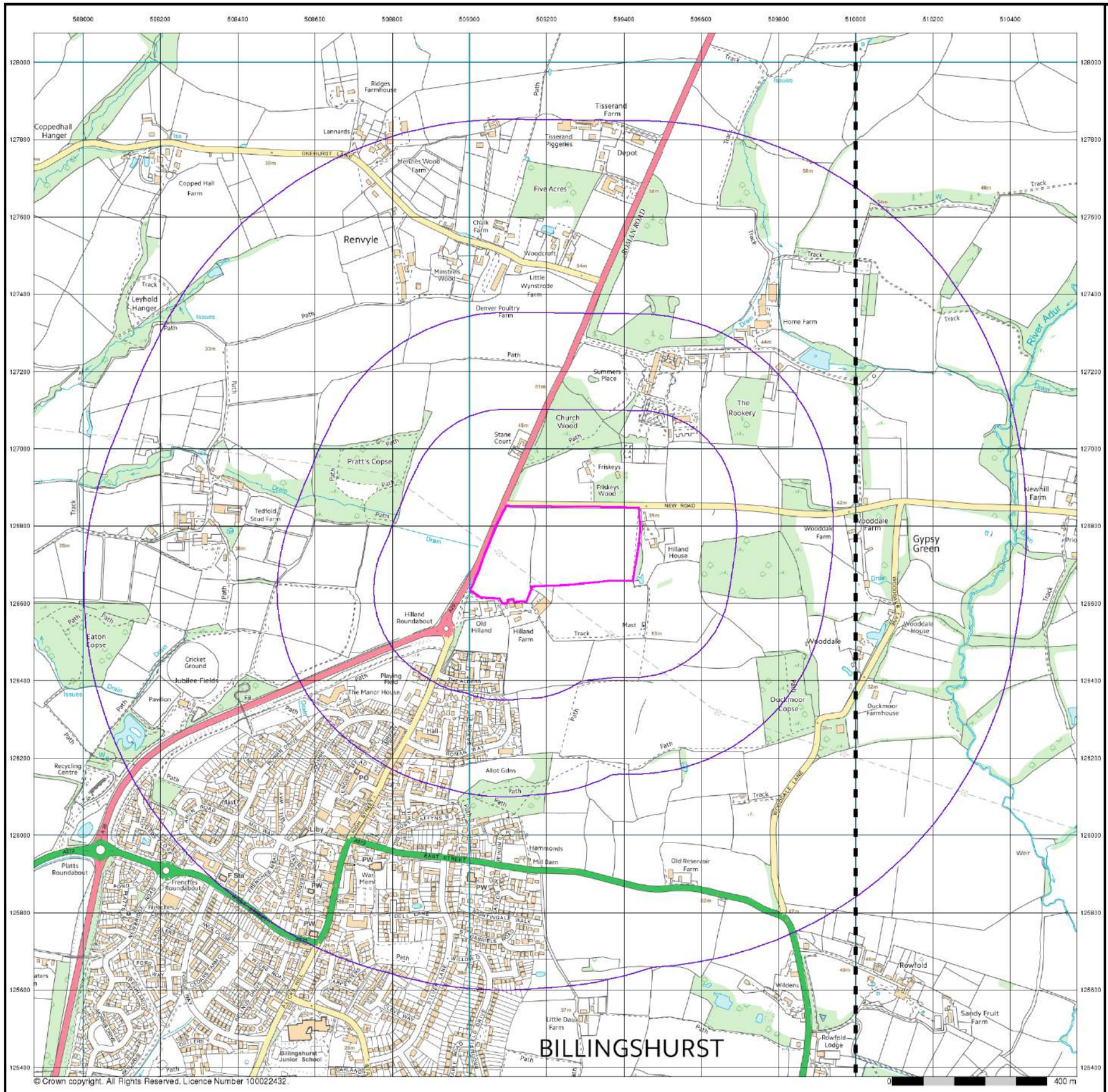


Geo-Environmental

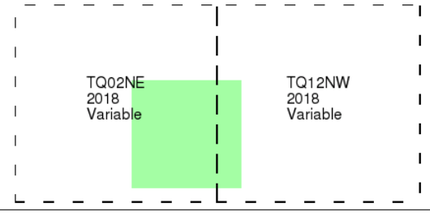
VectorMap Local

Published 2018

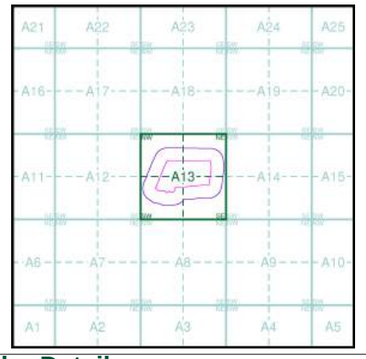
Source map scale - 1:10,000

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)



Historical Map - Slice A



Order Details

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Site Area (Ha):	8.28
Search Buffer (m):	1000

Site Details

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APPENDIX B

Site Photographs



Plate 1 View looking West showing ditch separating the two fields and pylons with electricity cables running through the site.



Plate 2 View looking south showing off-site farm buildings



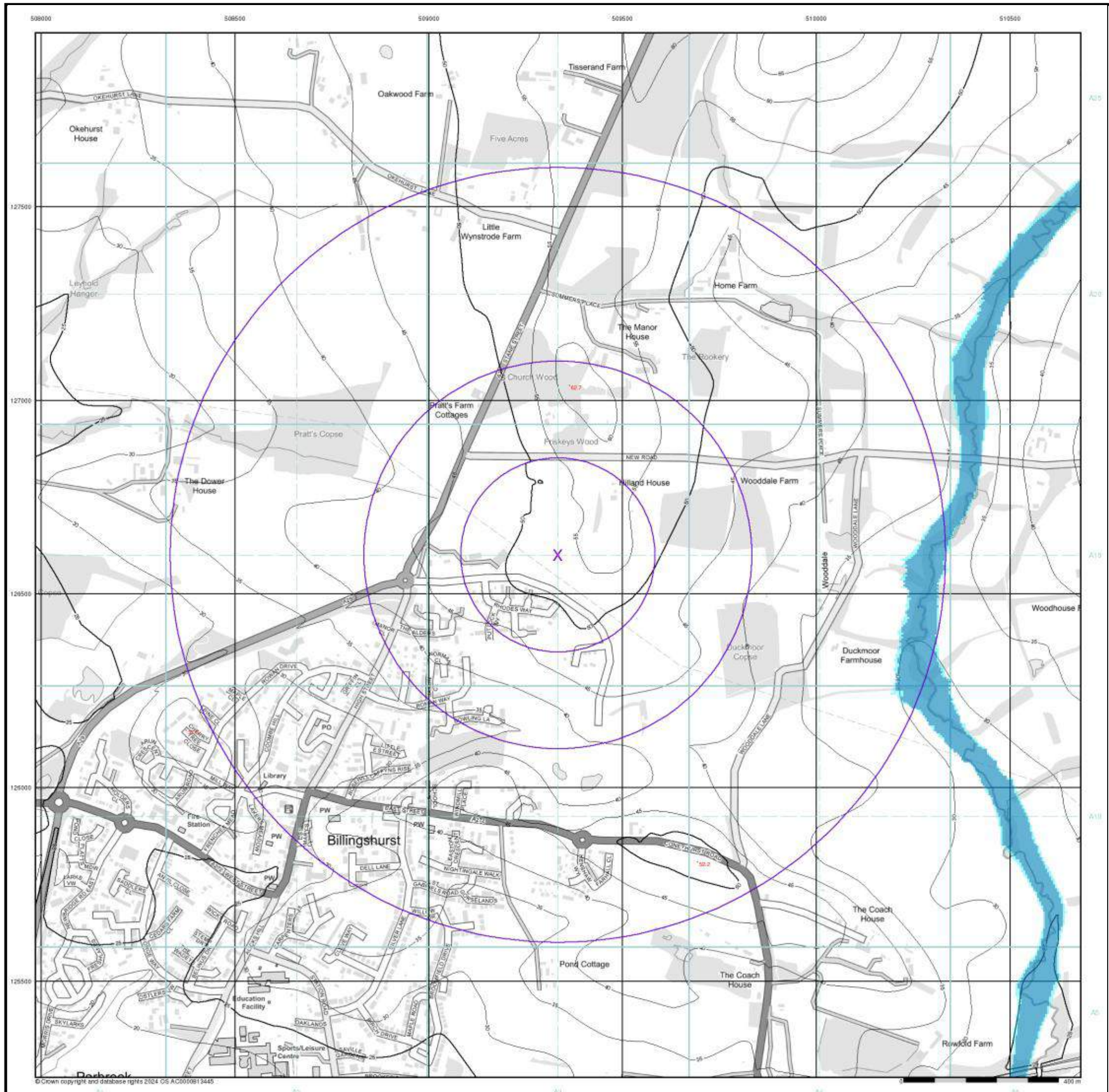
Plate 3 North-eastern site boundary showing off-site forest area (previously orchard)



Plate 4 South east boundary of the site with semi-mature trees and electricity cables

Appendix E

Envirocheck Flood Screening Report



motion

EA/NRW Flood Data Map (1:10,000)

General

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

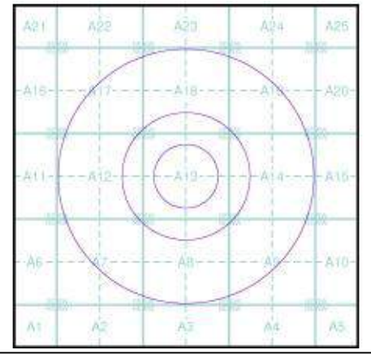
Flood Data

- 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

Contours (height in metres)

- Standard Contour
- Master Contour
- Spot Height
- MLW Mean Low Water
- MHW Mean High Water

EA/NRW Flood Data Map - Slice A



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Site Details

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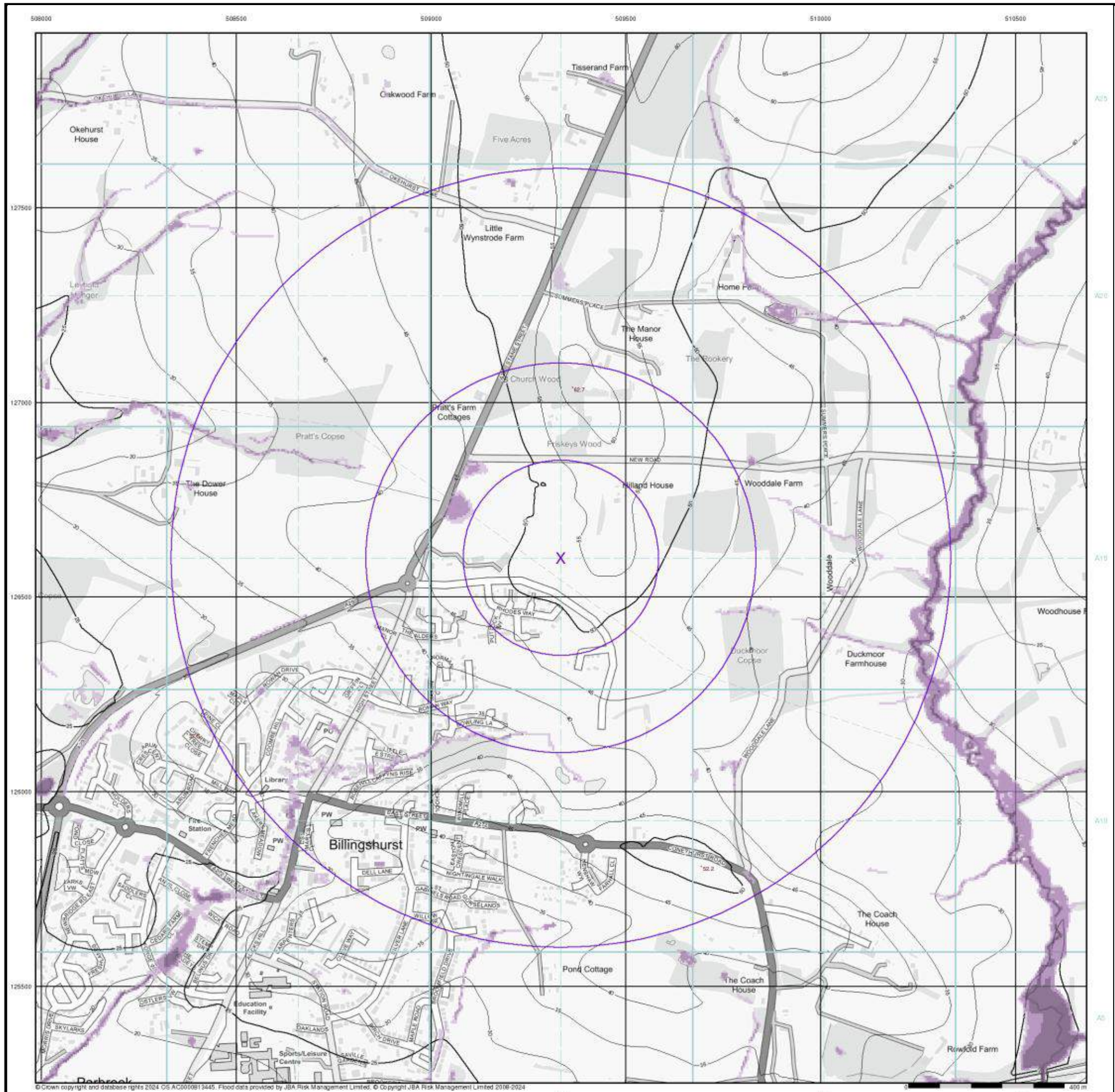
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Okehurst House
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Tisserand Farm
Five Acres
Little Wynstrode Farm
Home Farm
The Manor House
The Rookery
Church Wood
Pratt's Farm Cottages
Pratt's Copse
Priskeys Wood
The Dower House
Hilland House
Wooddale Farm
Woodhouse F
Duckmoor Copse
Duckmoor Farmhouse
Billingshurst
Library
Fire Station
Education Facility
Sports/Leisure Centre
Pond Cottage
The Coach House
The Coach House
Rowfold Farm
Parbrook
OKEHURST LANE
SUMMERS PLACE
NEW ROAD
WOODDALE LANE
A29
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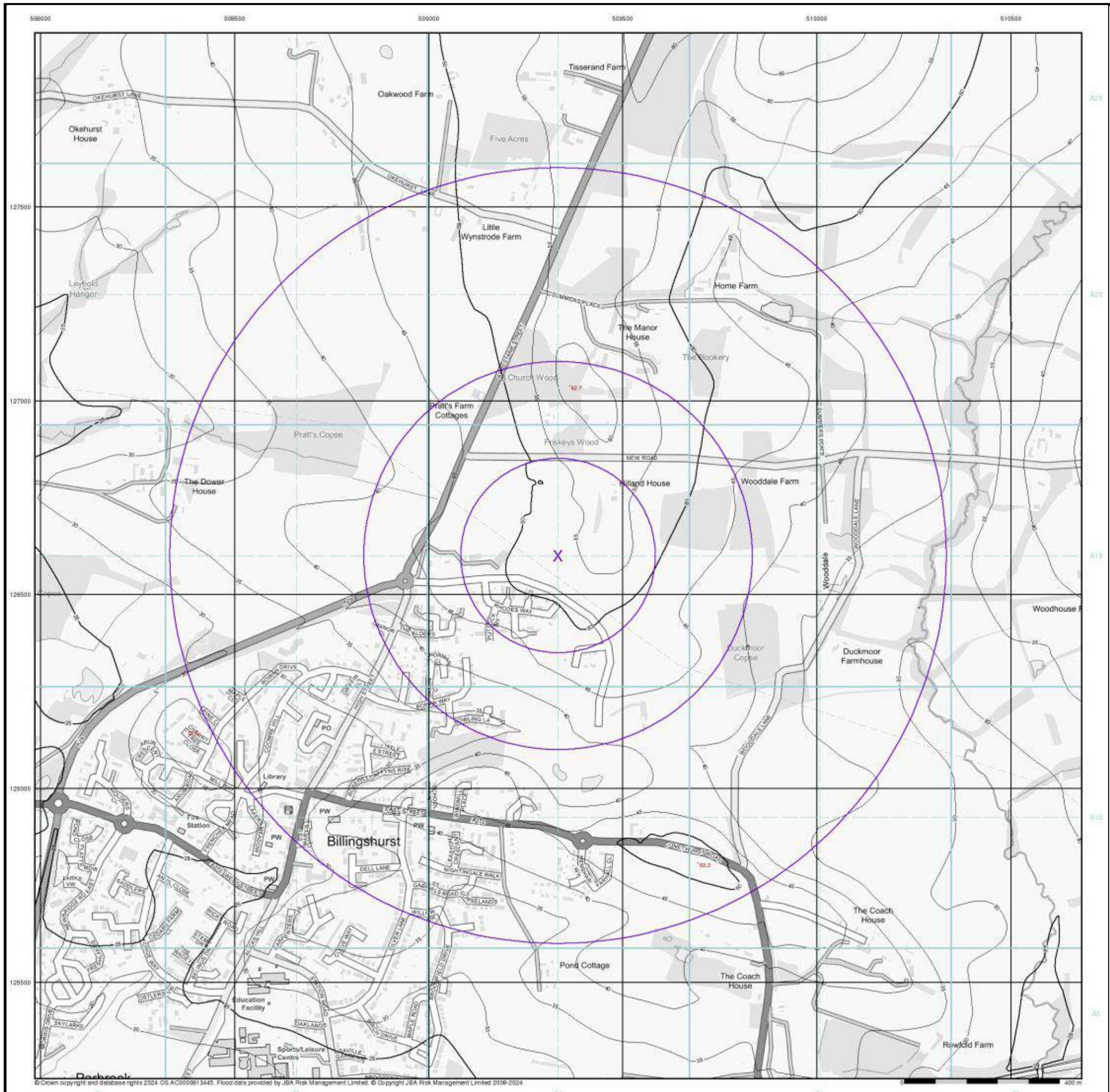

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motion

JBA 100 Year Return Flood Map (Undefended) (1:10,000)

General

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

Modelled Flood Depth

Fluvial Depth	Coastal Depth
0.01m - 0.05m	0.01m - 0.05m
0.05m - 0.1m	0.05m - 0.1m
0.1m - 0.3m	0.1m - 0.3m
0.3m - 1m	0.3m - 1m
>1m	>1m

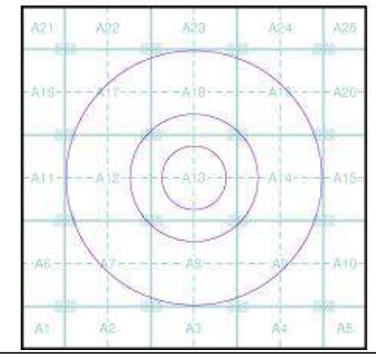
Contours (height in metres)

Standard Contour 105 100 95 — MLW Mean Low Water

Master Contour — MHW Mean High Water

Spot Height 167.9

JBA 100 Year Return Flood Map (Undefended) - Slice A



Order Details

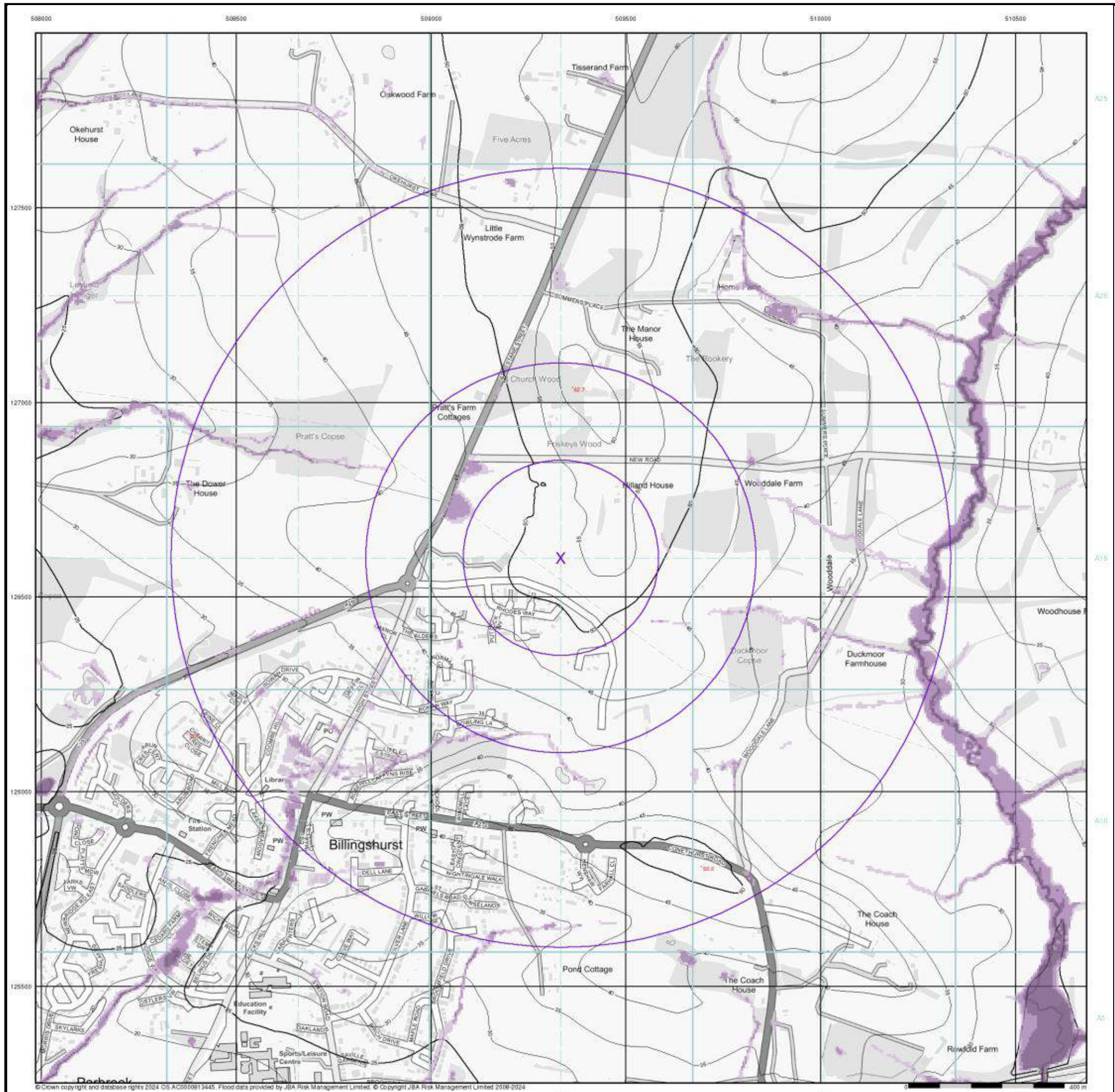
Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

2 Old Hilland, Hilland Road, BILLINGSHURST, RH14 9HN

Landmark INFORMATION GROUP

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



motion

JBA 200 Year Return Flood Map (Undefended) (1:10,000)

General

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

Modelled Flood Depth

Pluvial Depth	Fluvial Depth	Coastal Depth
0.1m	0.01m - 0.05m	0.01m - 0.05m
0.1m - 0.3m	0.05m - 0.1m	0.05m - 0.1m
0.3m - 1m	0.1m - 0.3m	0.1m - 0.3m
>1m	0.3m - 1m	0.3m - 1m
	>1m	>1m

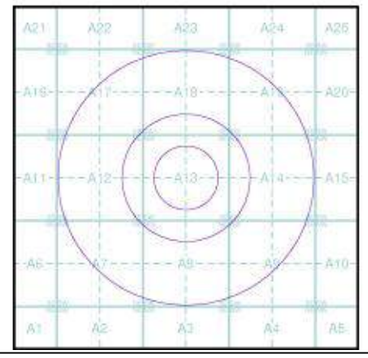
Contours (height in metres)

Standard Contour 105 100 95 — MLW Mean Low Water

Master Contour — MHW Mean High Water

Spot Height 157.5

JBA 200 Year Return Flood Map (Undefended) - Slice A



Order Details

Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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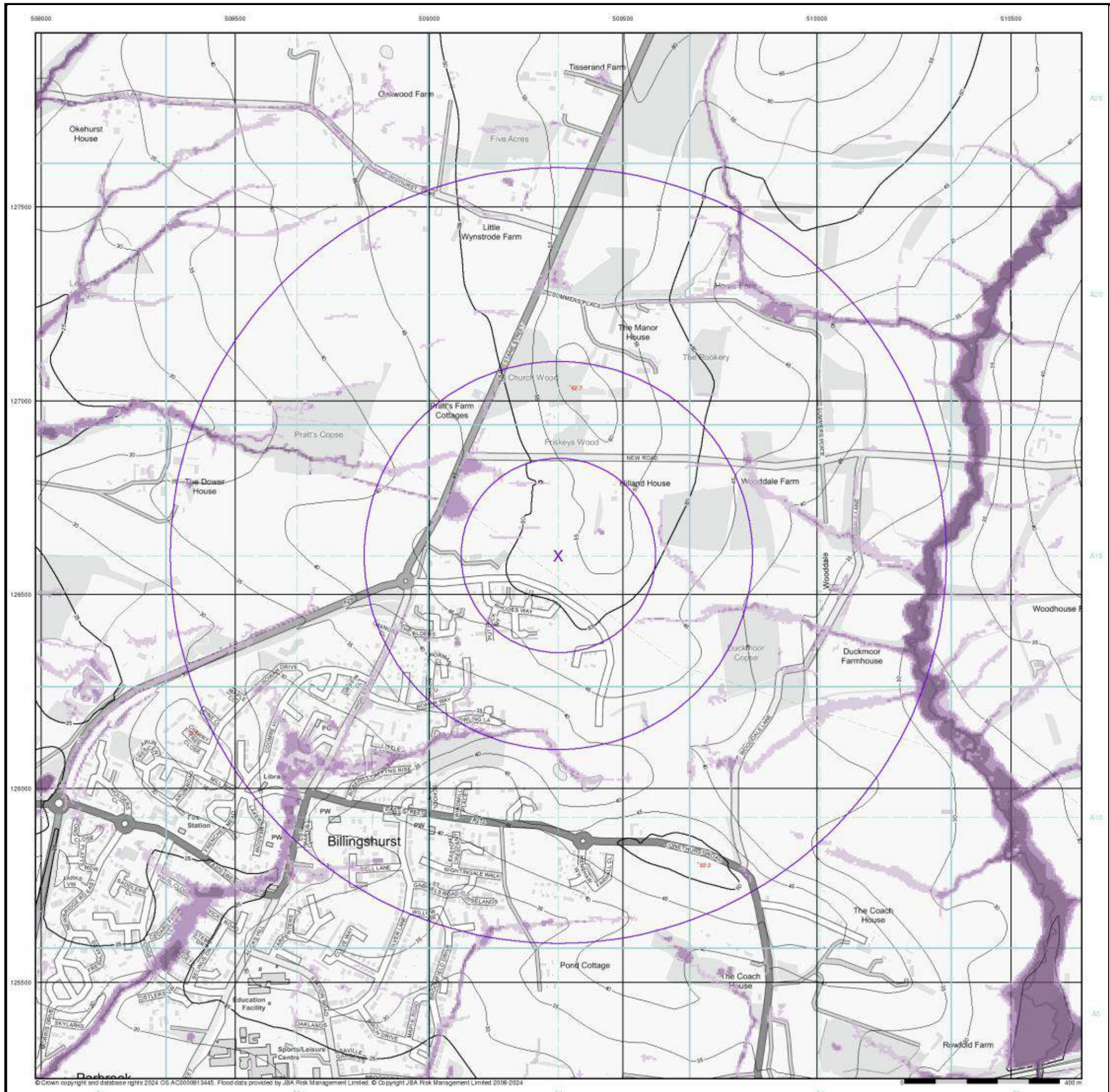

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motion

JBA 1000 Year Return Flood Map (Undefended) (1:10,000)

General

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

Modelled Flood Depth

Pluvial Depth	Fluvial Depth	Coastal Depth
0.1m	0.01m - 0.05m	0.01m - 0.05m
0.1m - 0.3m	0.05m - 0.1m	0.05m - 0.1m
0.3m - 1m	0.1m - 0.3m	0.1m - 0.3m
>1m	0.3m - 1m	0.3m - 1m
	>1m	>1m

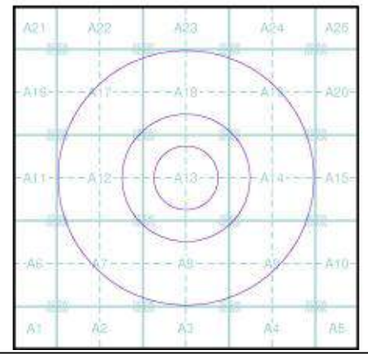
Contours (height in metres)

Standard Contour 105 100 95 — MLW Mean Low Water

Master Contour — MHW Mean High Water

Spot Height 157.5

JBA 1000 Year Return Flood Map (Undefended) - Slice A



Order Details

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Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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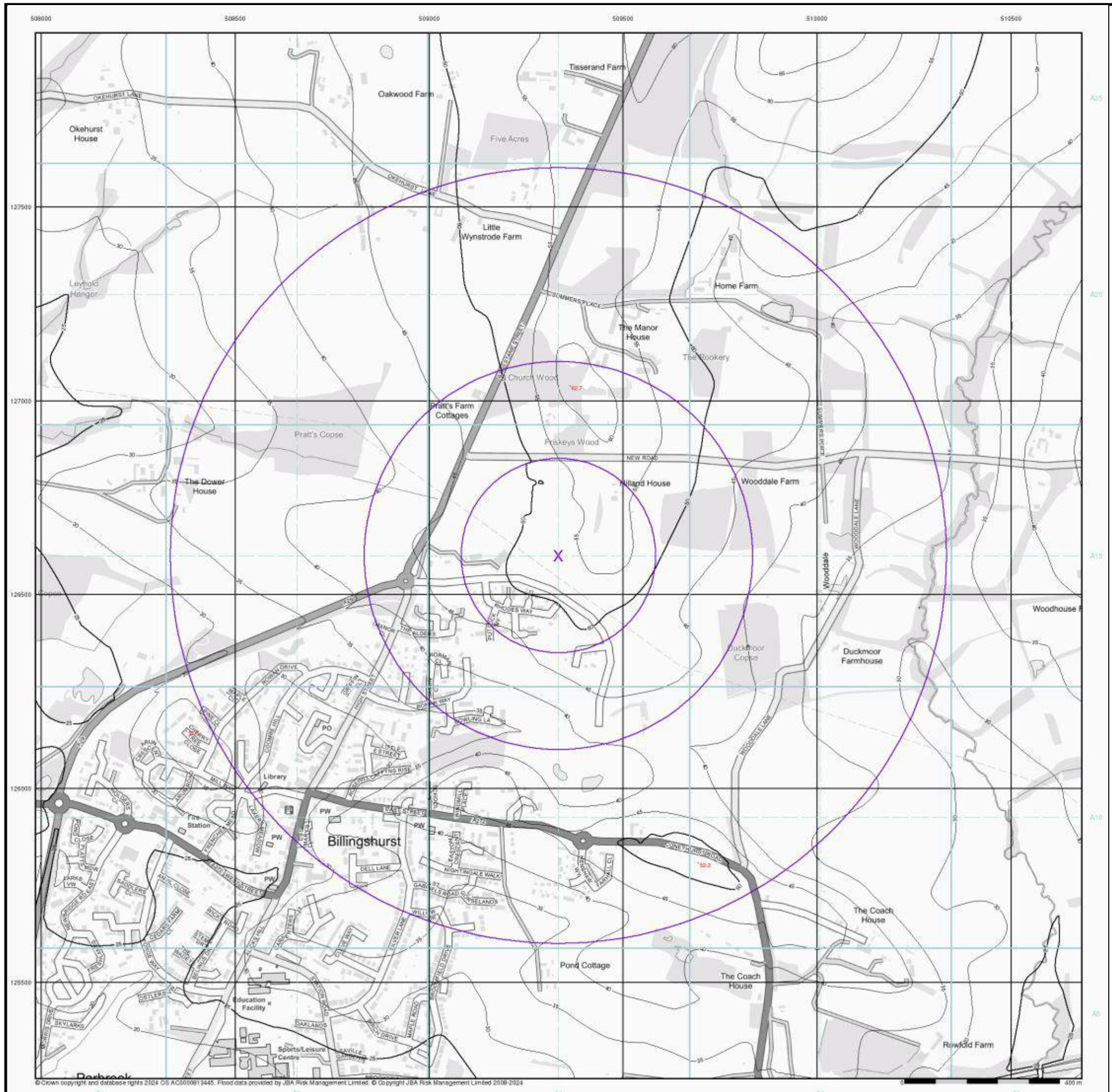


motion

JBA Canal Failure Map (1:10,000)

General

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

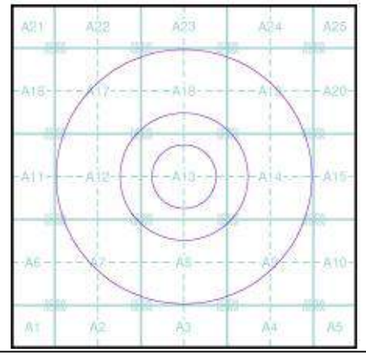
Flood Data

- Canal Failure
- Coverage

Contours (height in metres)

- Standard Contour
- Master Contour
- Spot Height
- MLW Mean Low Water
- MHW Mean High Water

JBA Canal Failure Flood Map - Slice A



Order Details

Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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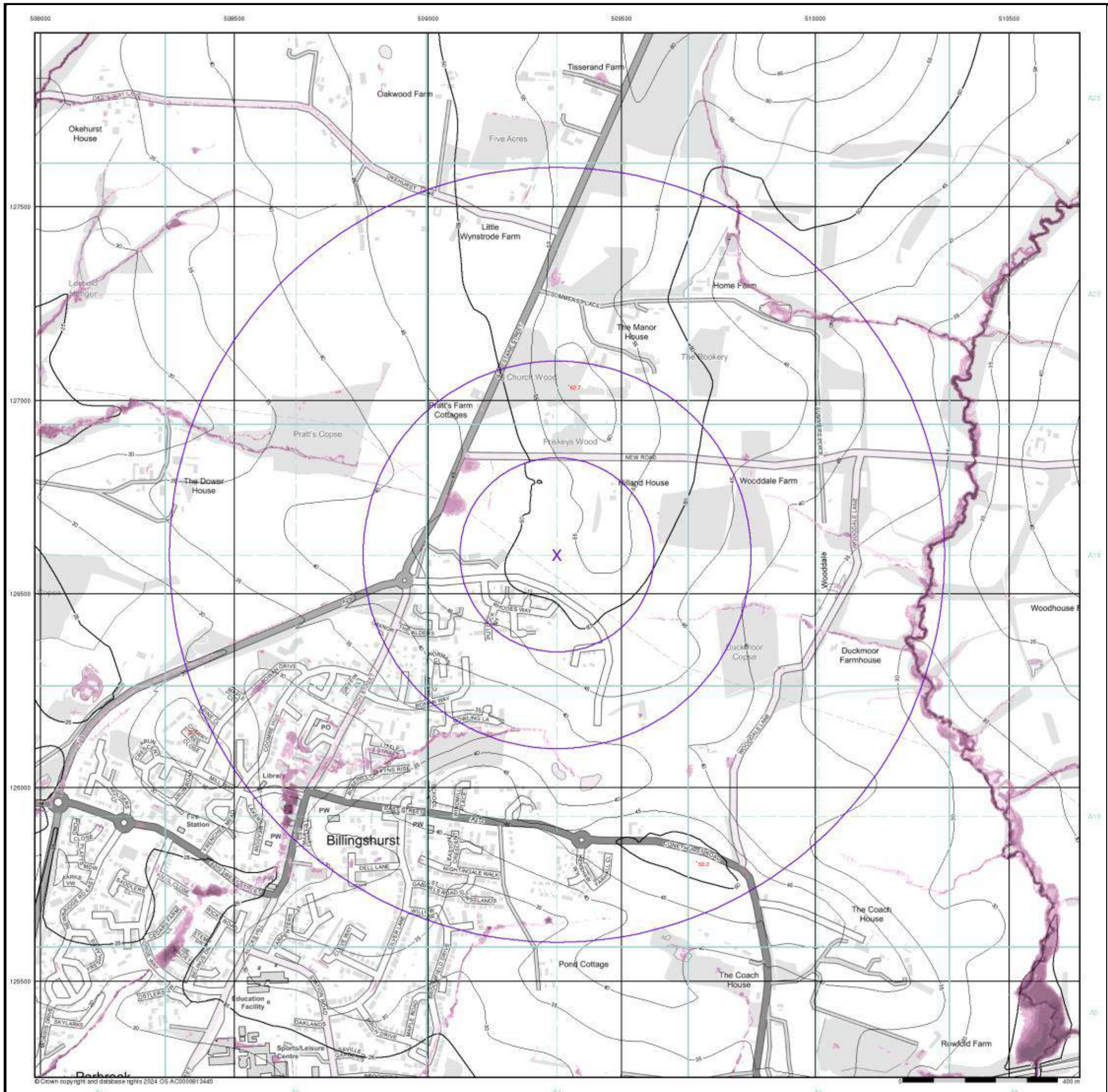


motion

EA/NRW Surface Water 30 Year Return Depth Map (1:10,000)

General

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

Surface Water Depth

- 0 - 0.15m
- 0.15 - 0.30m
- 0.30 - 0.60m
- 0.60 - 0.90m
- 0.90 - 1.20m
- > 1.20m

Contours (height in metres)

Standard Contour | Master Contour | Spot Height

MLW Mean Low Water

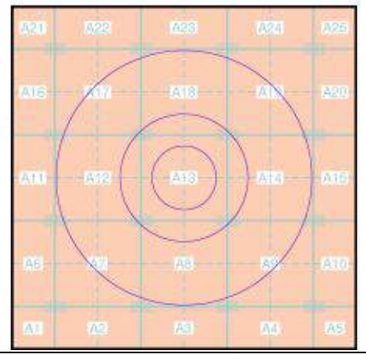
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

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Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
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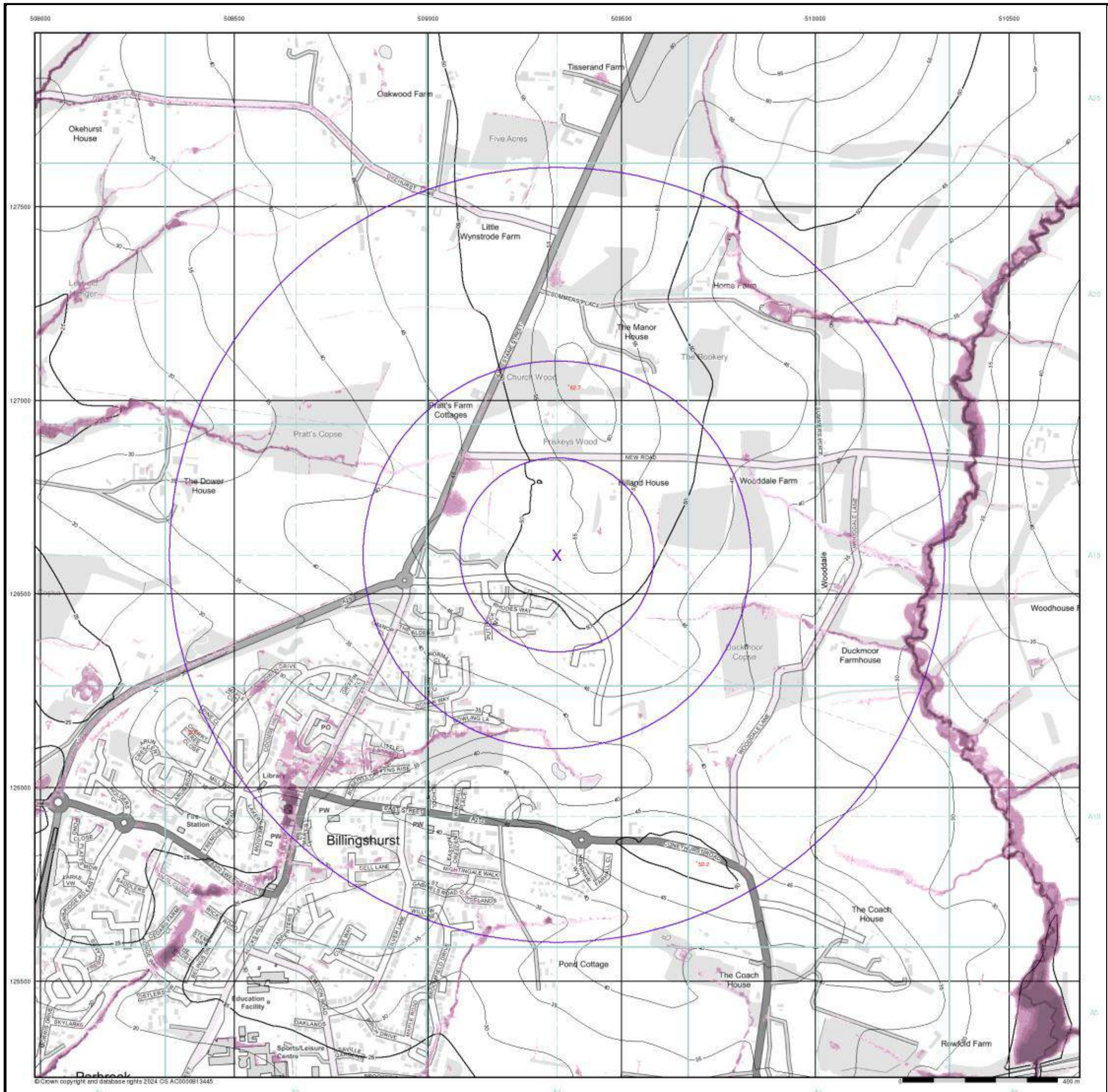


motion

EA/NRW Surface Water 100 Year Return Depth Map

General

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

Surface Water Depth

- 0 - 0.15m
- 0.15 - 0.30m
- 0.30 - 0.60m
- 0.60 - 0.90m
- 0.90 - 1.20m
- > 1.20m

Contours (height in metres)

Standard Contour | Master Contour | Spot Height

MLW Mean Low Water

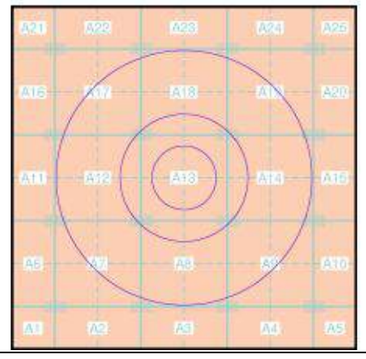
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



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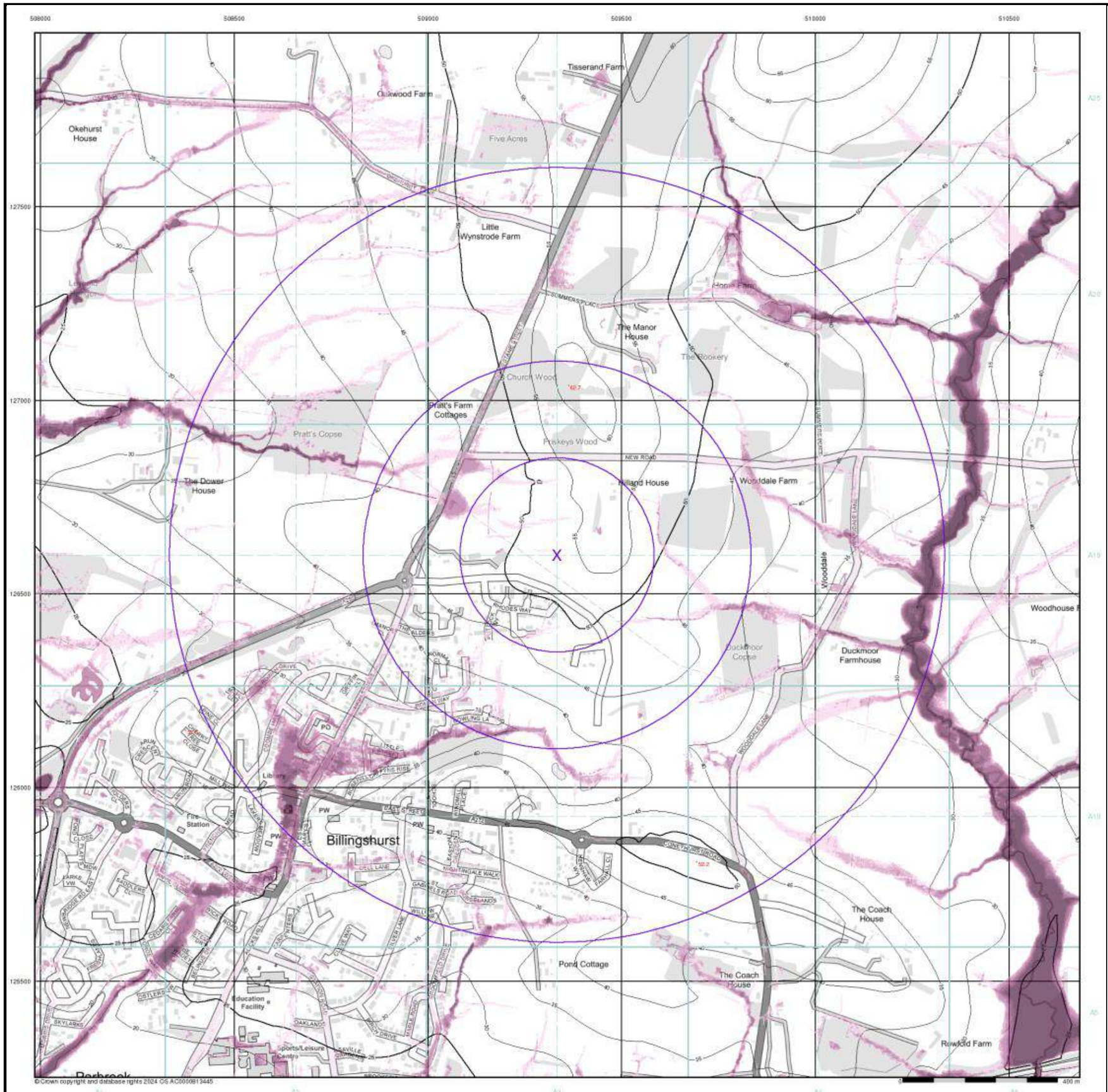


motion

EA/NRW Surface Water 1000 Year Return Depth Map (1:10,000)

General

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

Surface Water Depth

- 0 - 0.15m
- 0.15 - 0.30m
- 0.30 - 0.60m
- 0.60 - 0.90m
- 0.90 - 1.20m
- > 1.20m

Contours (height in metres)

Standard Contour | Master Contour | Spot Height

MLW Mean Low Water

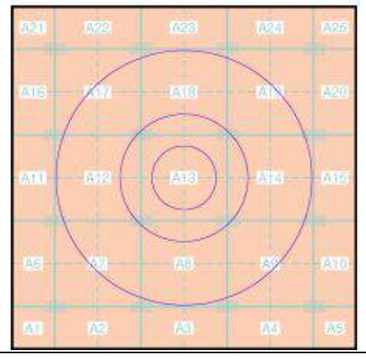
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



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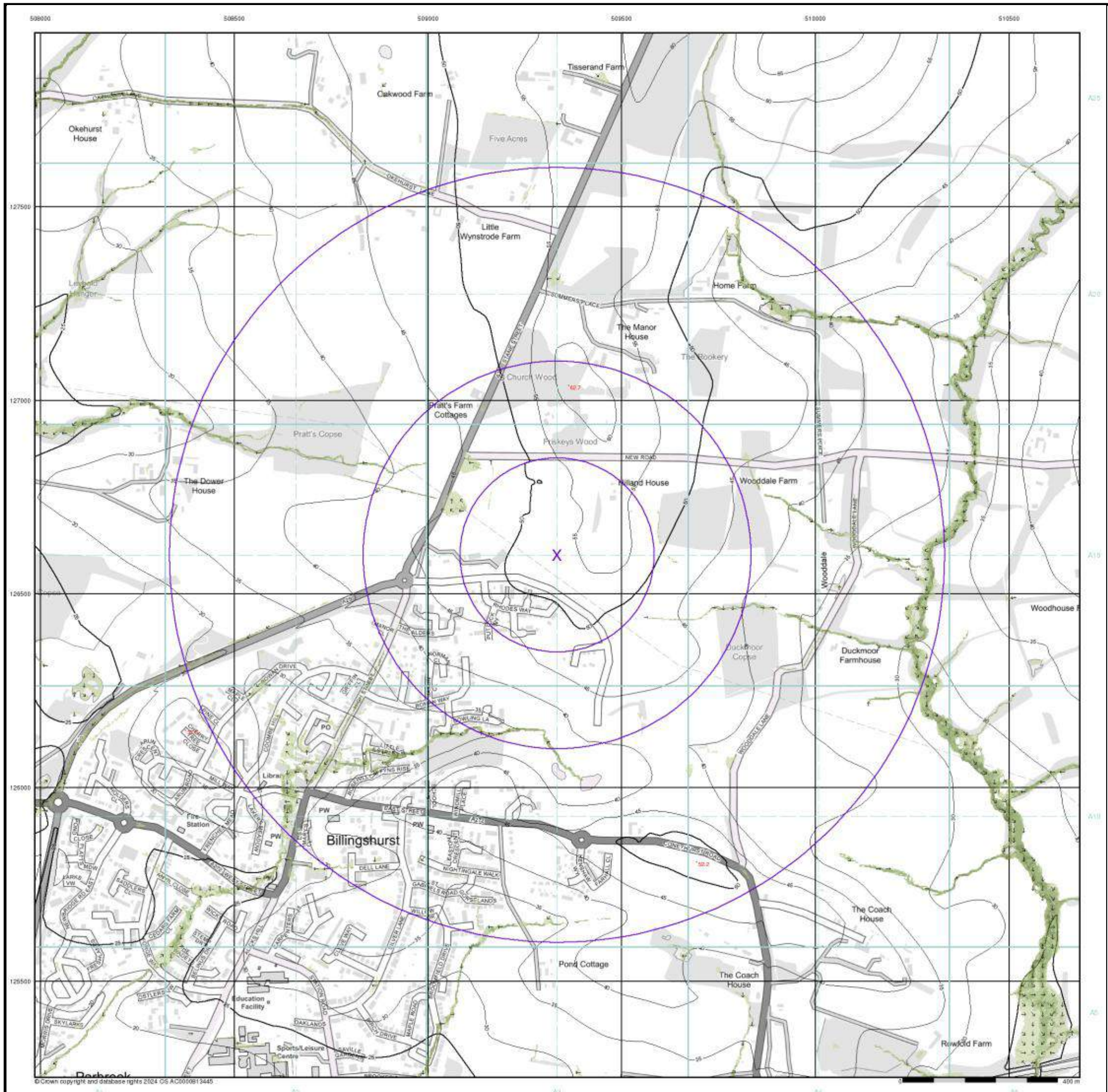


motion

EA/NRW Surface Water 30 Year Return Velocity and Flow Direction Map (1:10,000)

General

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

Surface Water Velocity and Direction

- 0.00 - 0.25m/s
- 0.25 - 0.50m/s
- 0.50 - 1.00m/s
- 1.00 - 2.00m/s
- > 2.00m/s

Flow Direction at maximum velocity

Contours (height in metres)

Standard Contour 105 | Master Contour 100 95 | Spot Height 167.8

MLW Mean Low Water

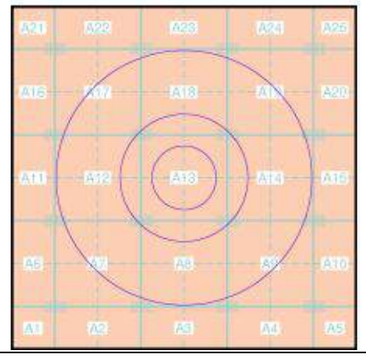
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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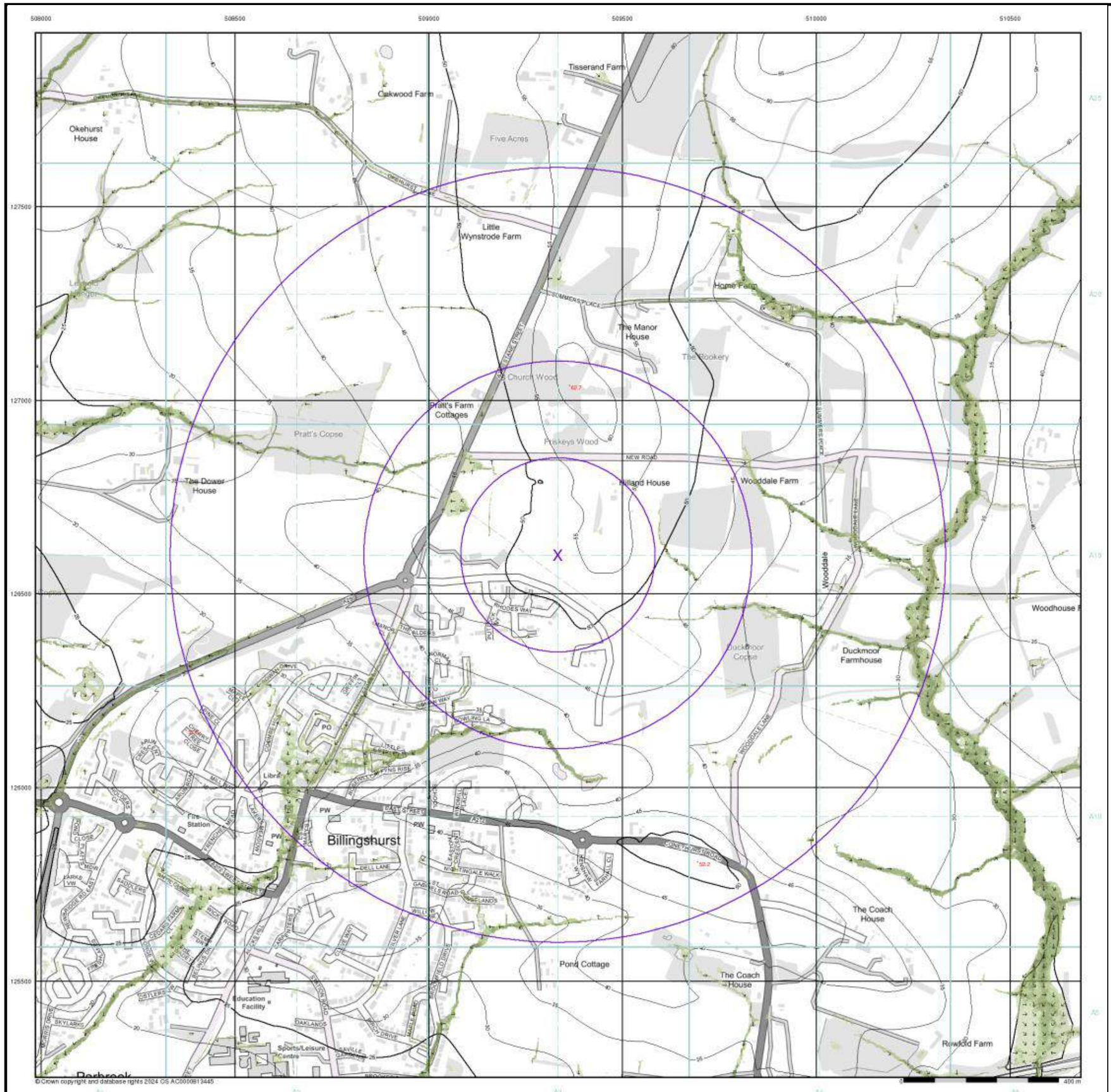


motion

EA/NRW Surface Water 100 Year Return Velocity and Flow Direction Map (1:10,000)

General

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

Surface Water Velocity and Direction

- 0.00 - 0.25m/s
- 0.25 - 0.50m/s
- 0.50 - 1.00m/s
- 1.00 - 2.00m/s
- > 2.00m/s

Flow Direction at maximum velocity

Contours (height in metres)

Standard Contour 105 | Master Contour 100 95 | Spot Height 167.8

MLW Mean Low Water

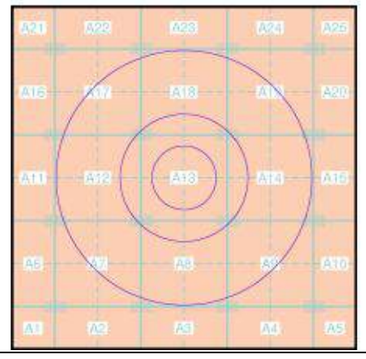
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

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Site Area (Ha):	0.01
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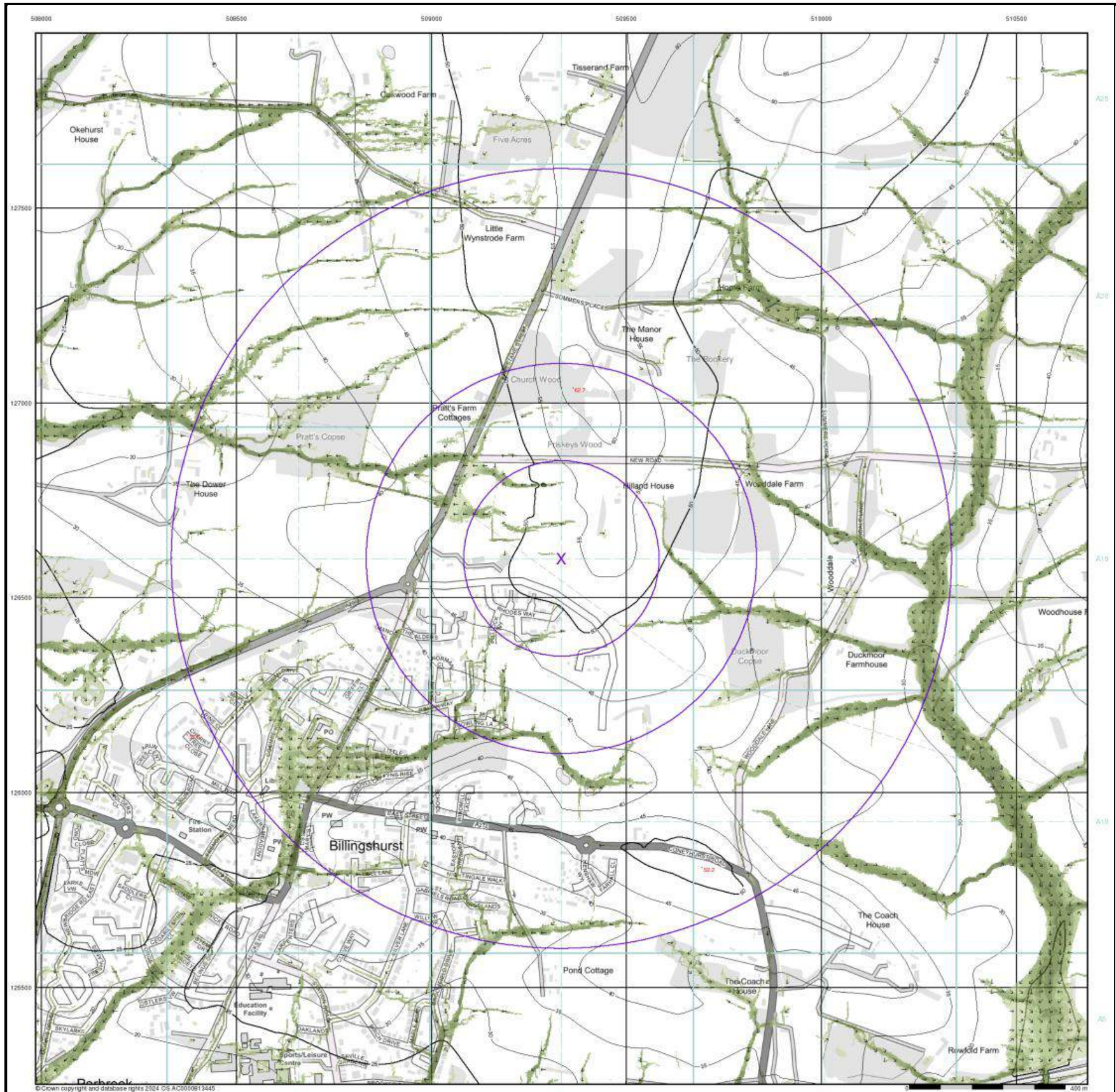


motion

EA/NRW Surface Water 1000 Year Return Velocity and Flow Direction Map (1:10,000)

General

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

Surface Water Velocity and Direction

- 0.00 - 0.25m/s
- 0.25 - 0.50m/s
- 0.50 - 1.00m/s
- 1.00 - 2.00m/s
- > 2.00m/s

Flow Direction at maximum velocity

Contours (height in metres)

Standard Contour | Master Contour | Spot Height

MLW Mean Low Water

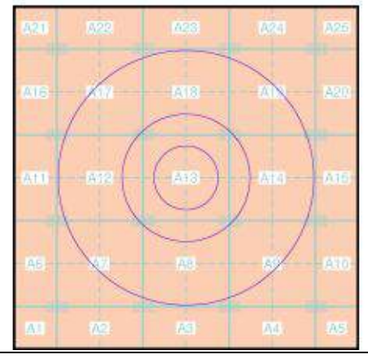
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

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National Grid Reference:	509330, 126600
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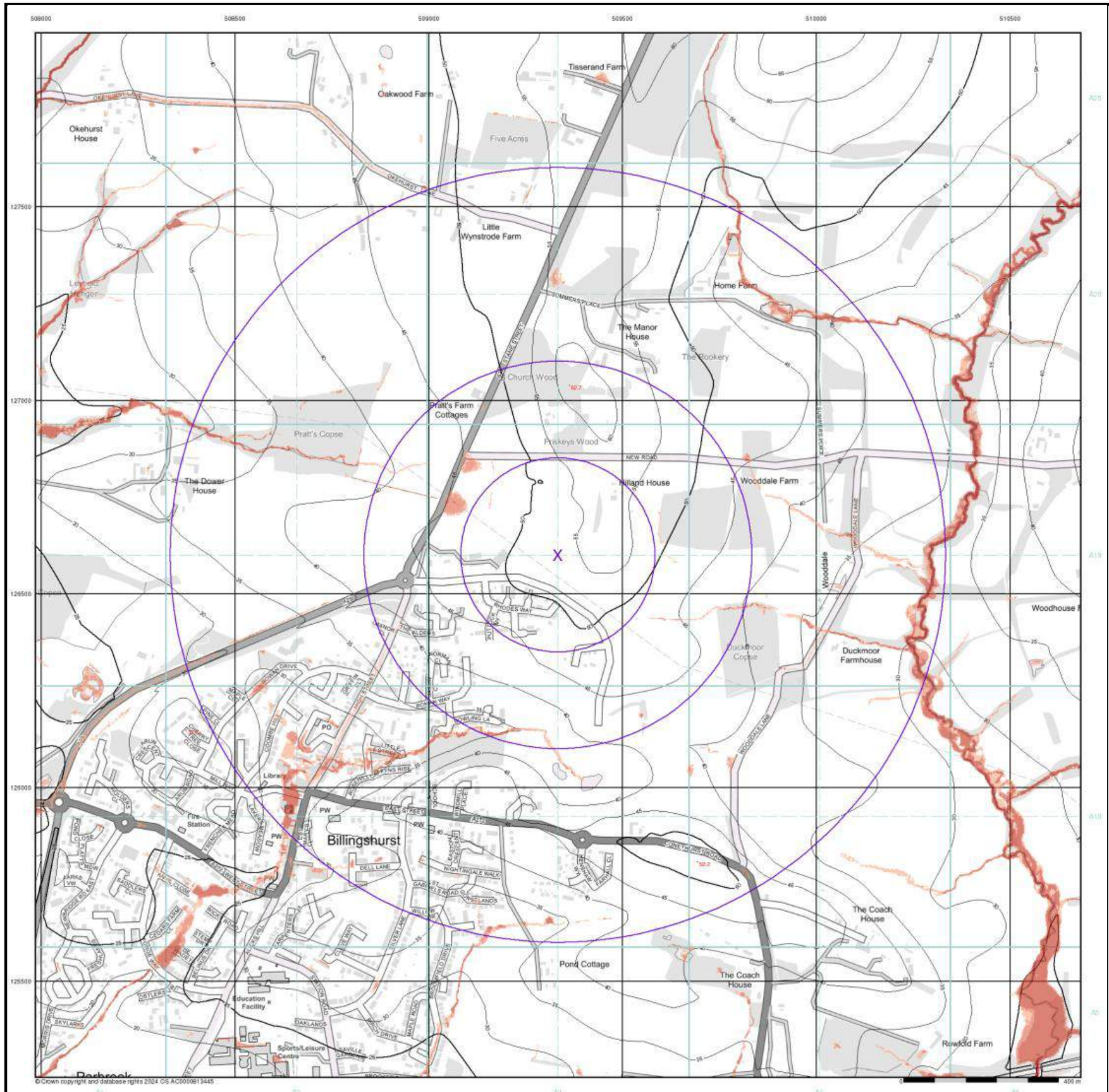


motion

EA/NRW Surface Water 30 Year Return Hazard Rating Map (1:10,000)

General

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

Surface Water Hazard Rating

- Low (0.5 – 0.75)
- Moderate (0.75 – 1.25)
- Significant (1.25 – 2.0)
- Extreme (>2.0)

Contours (height in metres)

Standard Contour | Master Contour | Spot Height

MLW Mean Low Water

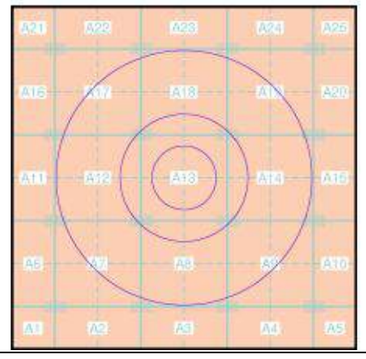
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

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National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

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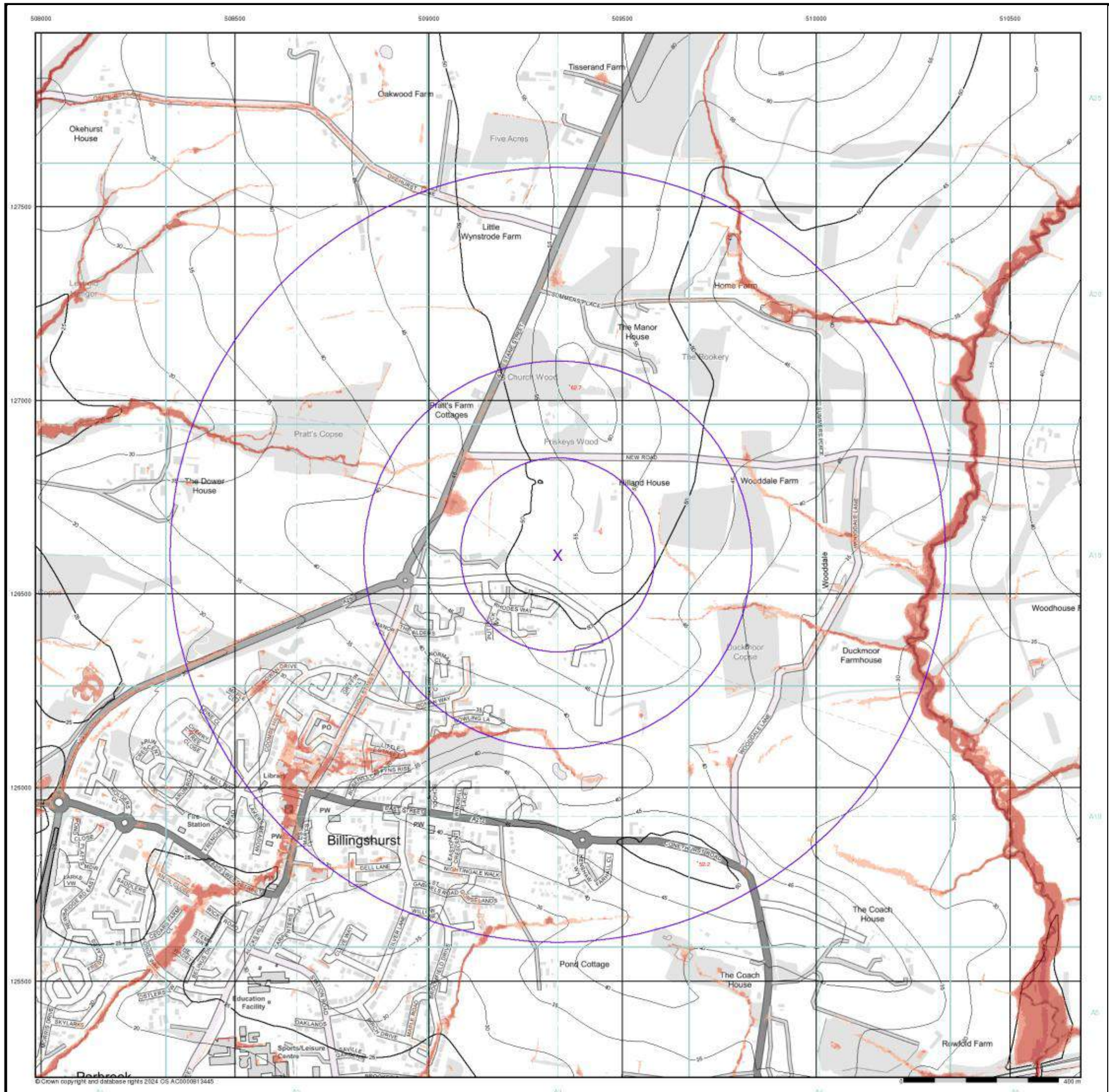

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motion

EA/NRW Surface Water 100 Year Return Hazard Rating Map (1:10,000)

General

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

Surface Water Hazard Rating

- Low (0.5 – 0.75)
- Moderate (0.75 – 1.25)
- Significant (1.25 – 2.0)
- Extreme (>2.0)

Contours (height in metres)

Standard Contour | Master Contour | Spot Height *167.8

MLW Mean Low Water

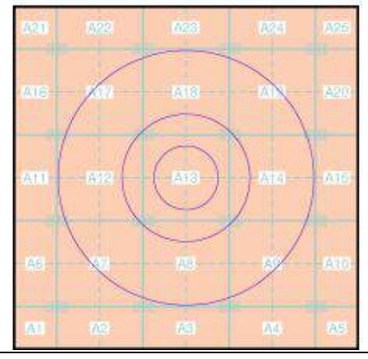
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

Order Number:	360250553_1_1
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National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
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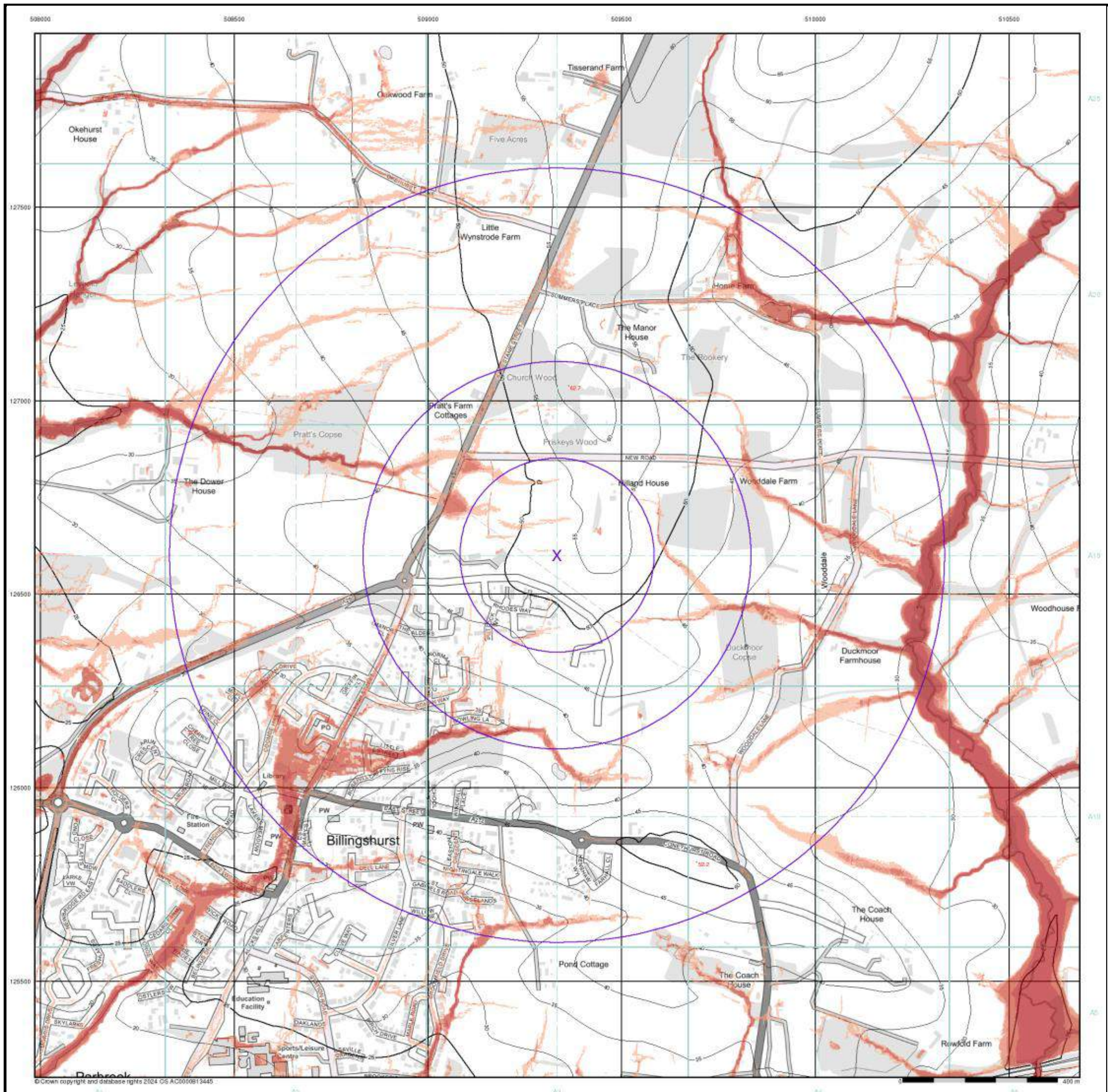


motion

EA/NRW Surface Water 1000 Year Return Hazard Rating Map (1:10,000)

General

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

Surface Water Hazard Rating

- Low (0.5 – 0.75)
- Moderate (0.75 – 1.25)
- Significant (1.25 – 2.0)
- Extreme (>2.0)

Contours (height in metres)

Standard Contour | Master Contour | Spot Height * 167.8

MLW Mean Low Water

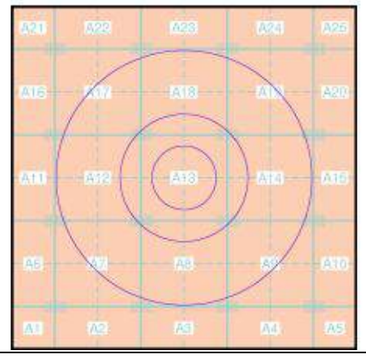
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

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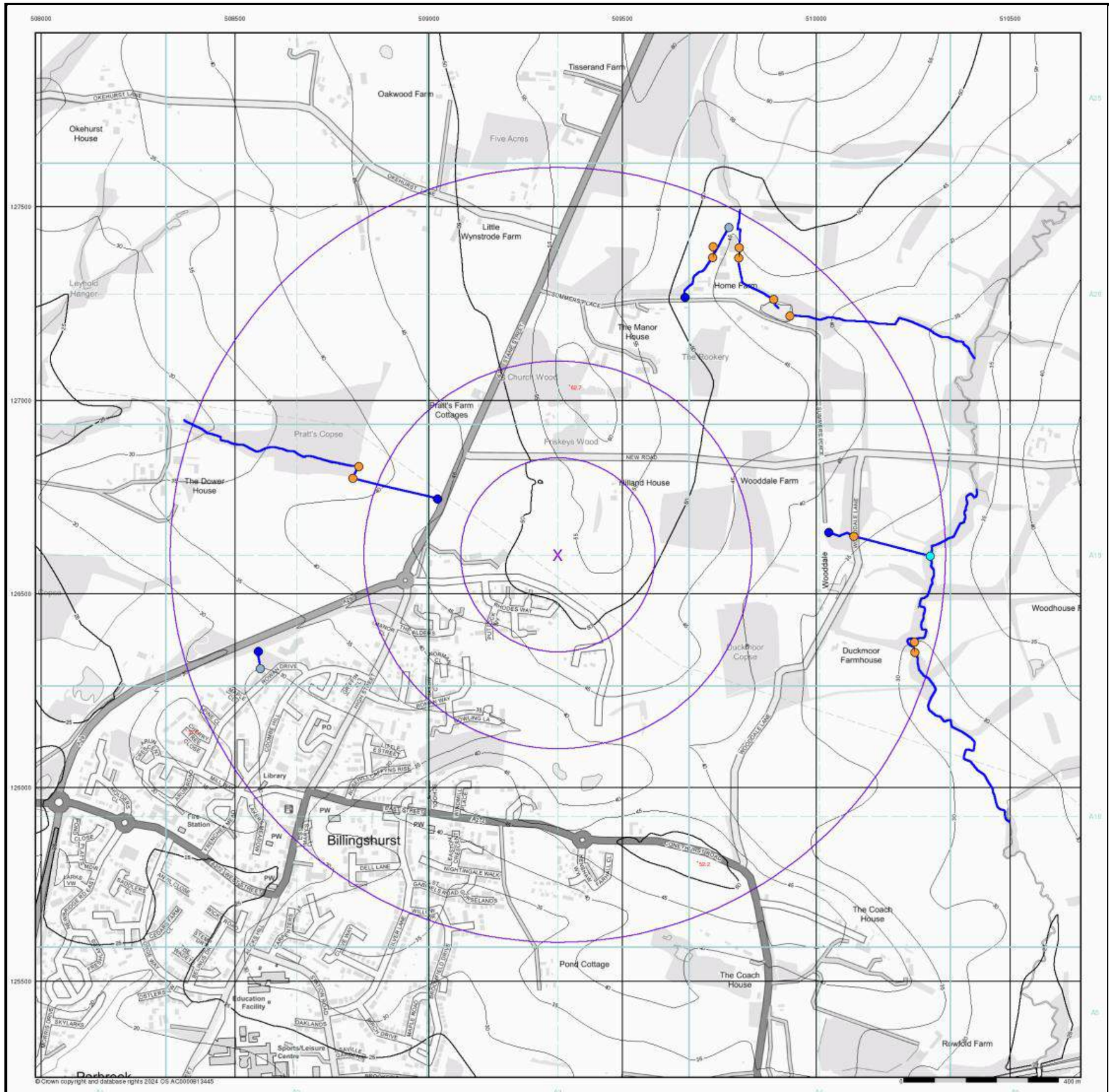


motion

OS Water Network Lines Map (1:10,000)

General

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

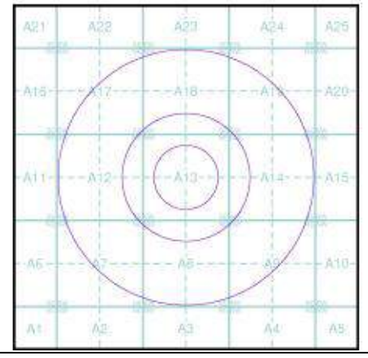
OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea
- Junction
- Outlet
- Pseudo
- Source
- Other

Contours (height in meters)

- Standard Contour (105, 100, 95)
- Master Contour
- Spot Height (167.3)
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



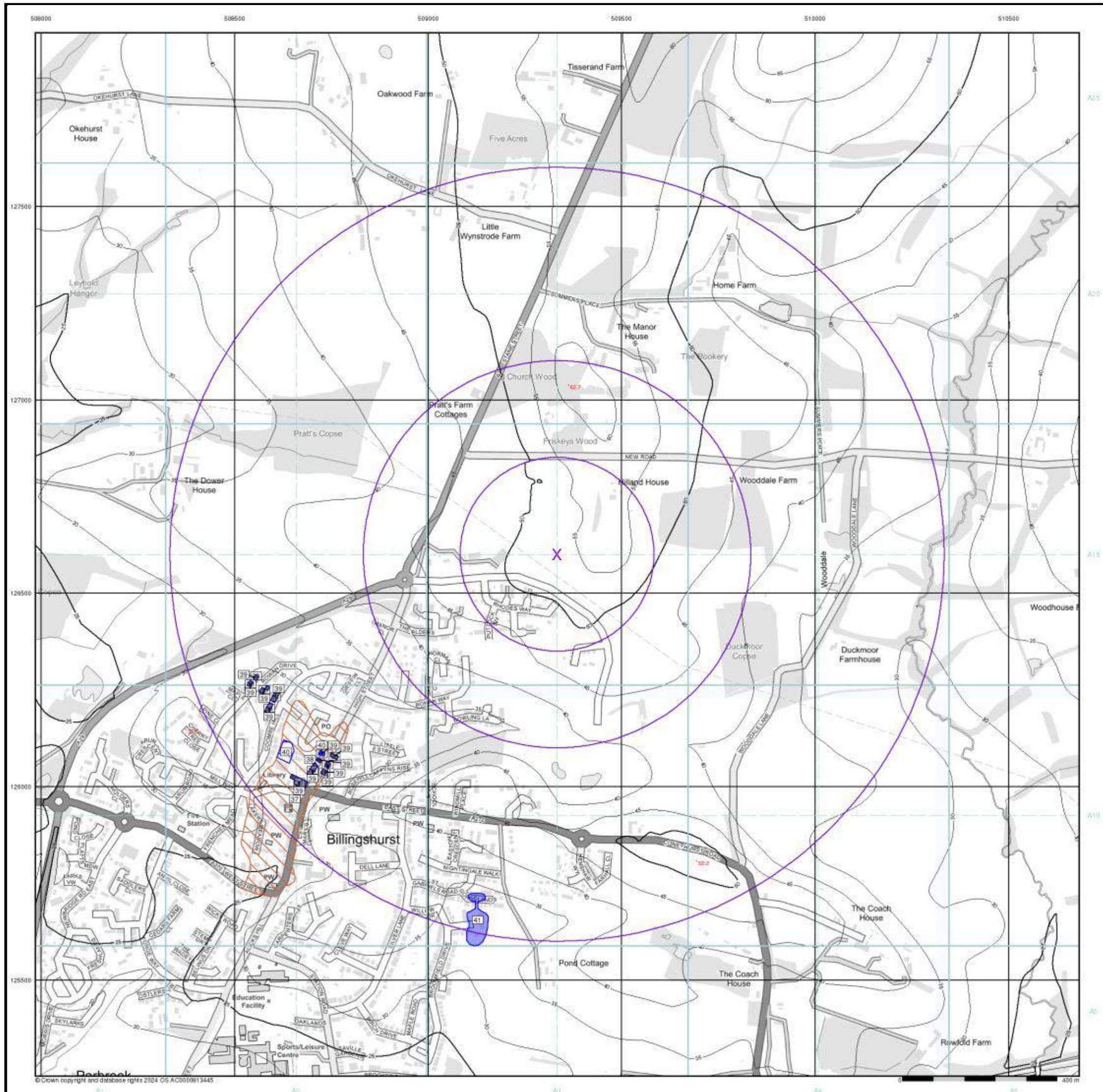
Order Details

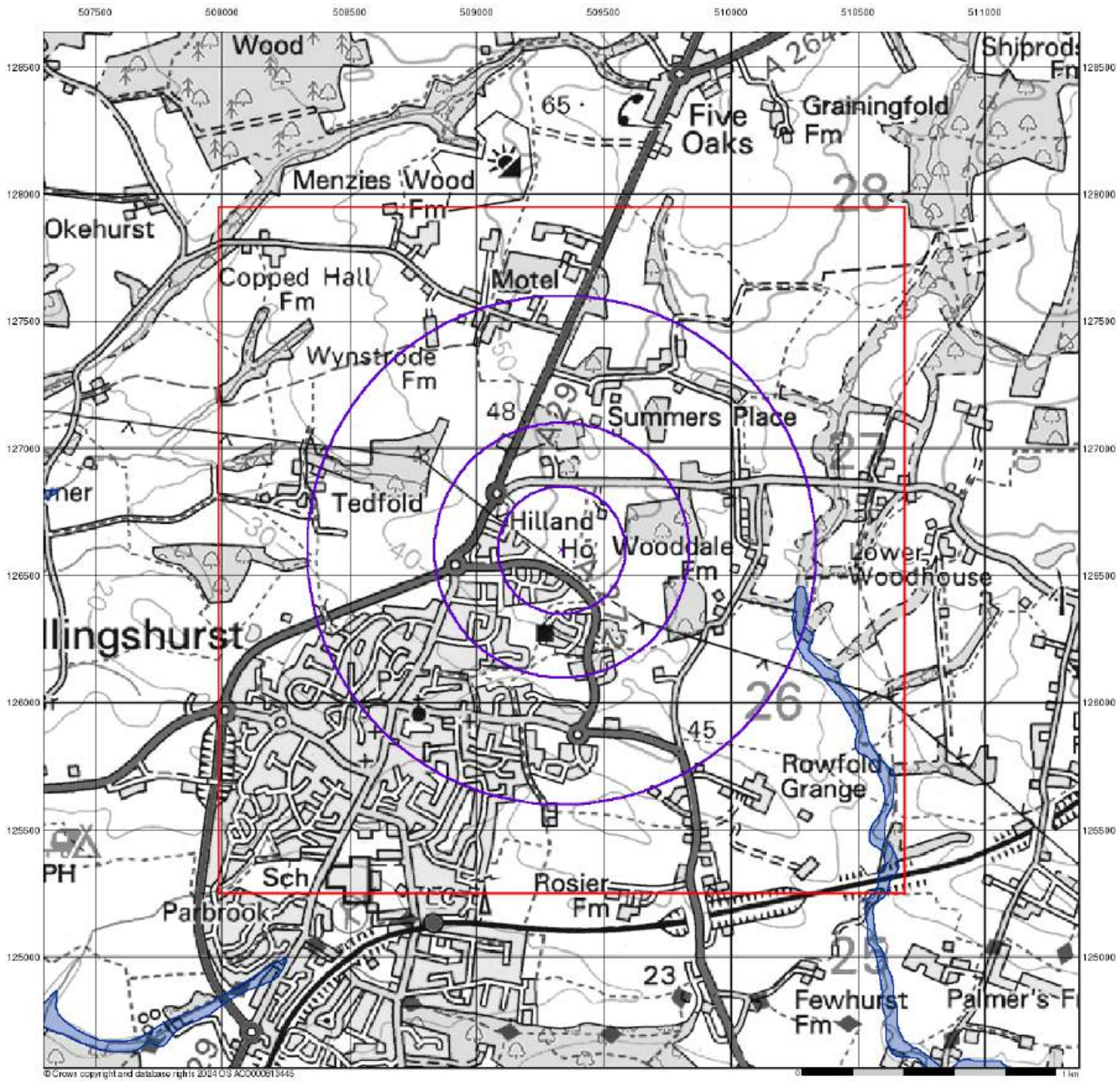
Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

2 Old Hilland, Hilland Road, BILLINGSHURST, RH14 9HN

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


508000
508500
509000
509500
510000
510500
127500
127000
126500
126000
125500
Okehurst House
Oakwood Farm
Tisserand Farm
Five Acres
Little Wynstrode Farm
Leyhold Hanger
Home Farm
The Manor House
The Rookery
Church Wood
Pratt's Farm Cottages
Pratt's Copse
Priskeys Wood
The Dower House
Hilland House
Wooddale Farm
Woodhouse F
Duckmoor Copse
Duckmoor Farmhouse
Billingshurst
Fire Station
Library
Education Facility
Sports/Leisure Centre
Pond Cottage
The Coach House
Rowfold Farm
Barbrook
OKEHURST LANE
SUMMERSPLACE
NEW ROAD
WOODDALE LANE
BROADLEA LANE
A29
A272
A281
A24
A272
A29
A281
A24
A272
A281
A24
A272
A281
A24
A272



motion

BGS Flood Data (1:50,000)

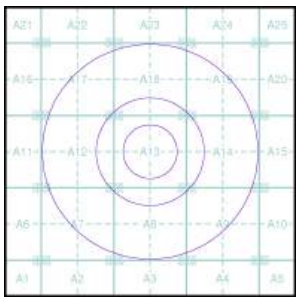
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

BGS Geological Indicators of Flooding

- Coastal
- Inland
- Bodies of Water

BGS Flood Data Map - Slice A



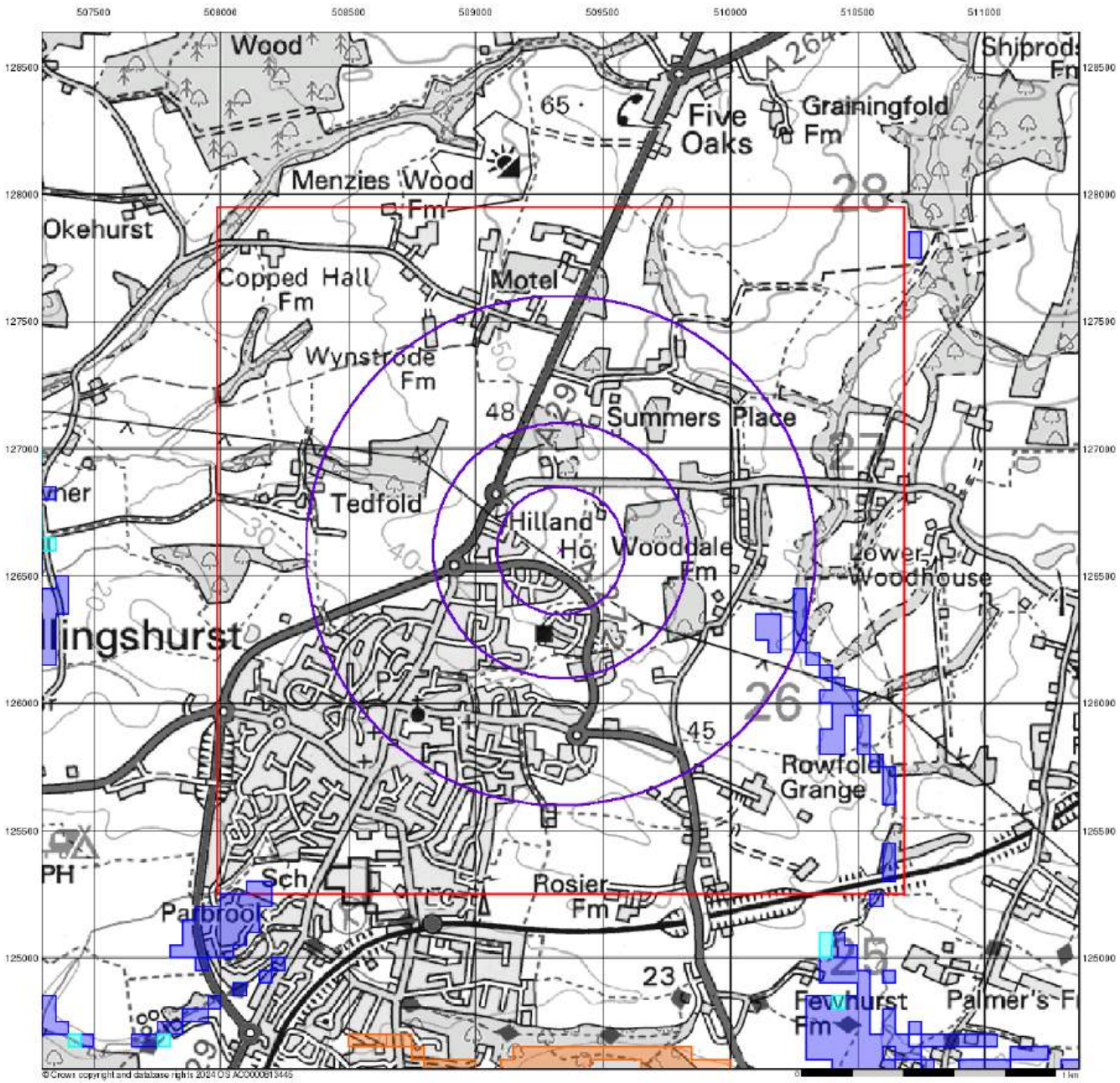
Order Details

Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

2 Old Hilland, Hilland Road, BILLINGSHURST, RH14 9HN

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



motion

BGS Flood Data (1:50,000)

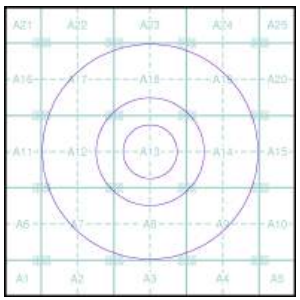
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

BGS Groundwater Flooding Susceptibility

- Potential for Groundwater Flooding to Occur at Surface
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Limited Potential for Groundwater Flooding to Occur

BGS Flood Data Map - Slice A



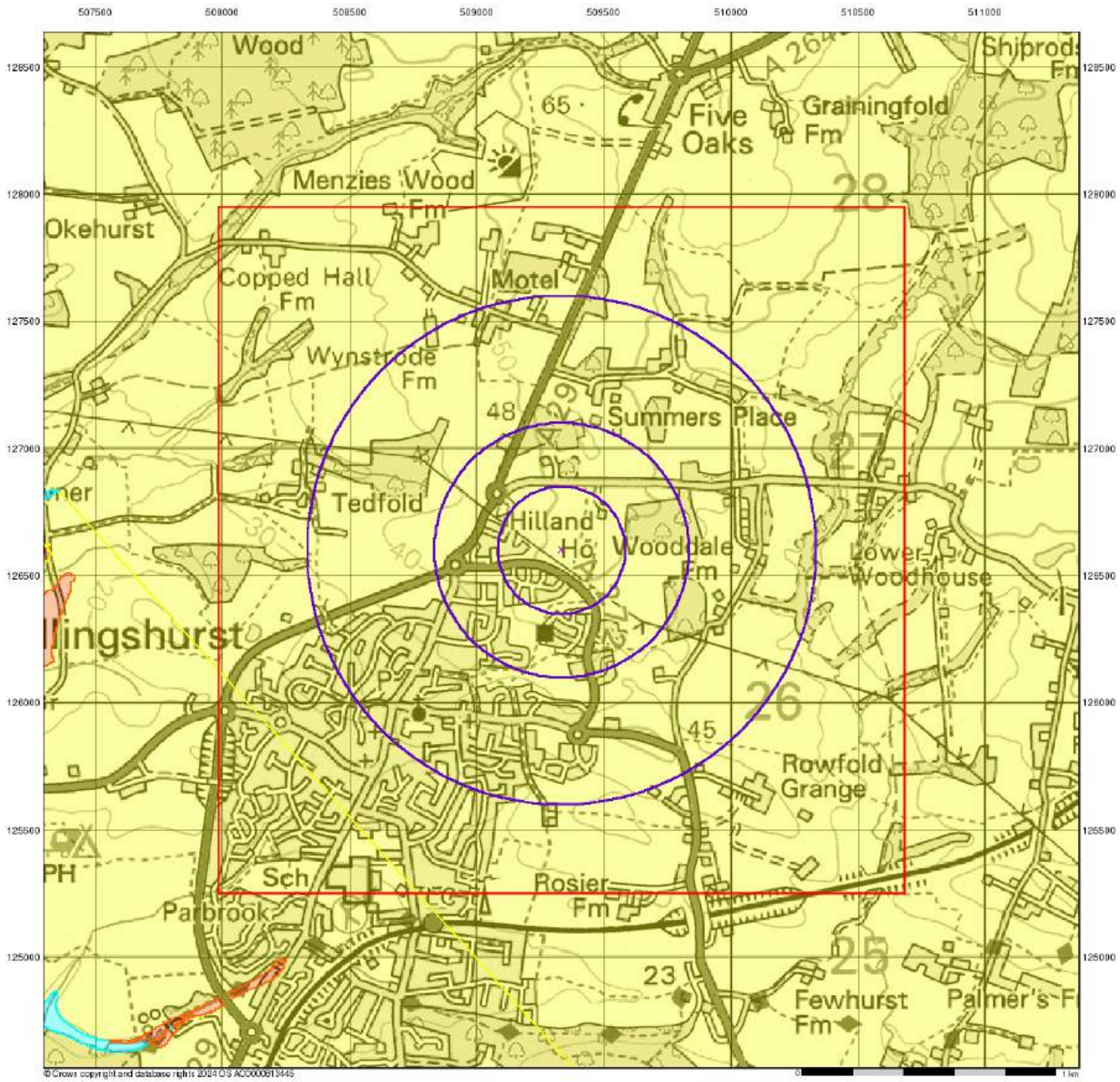
Order Details

Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

2 Old Hilland, Hilland Road, BILLINGSHURST, RH14 9HN

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



motion

GeoSmart Information Groundwater Flood Map (1:50,000)

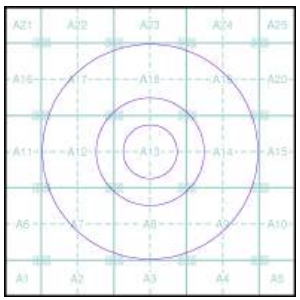
General

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

GeoSmart Information Groundwater Flooding Risk

- High Risk
- Moderate Risk
- Low Risk
- Negligible Risk

GeoSmart Information Groundwater Flood Map - Slice A



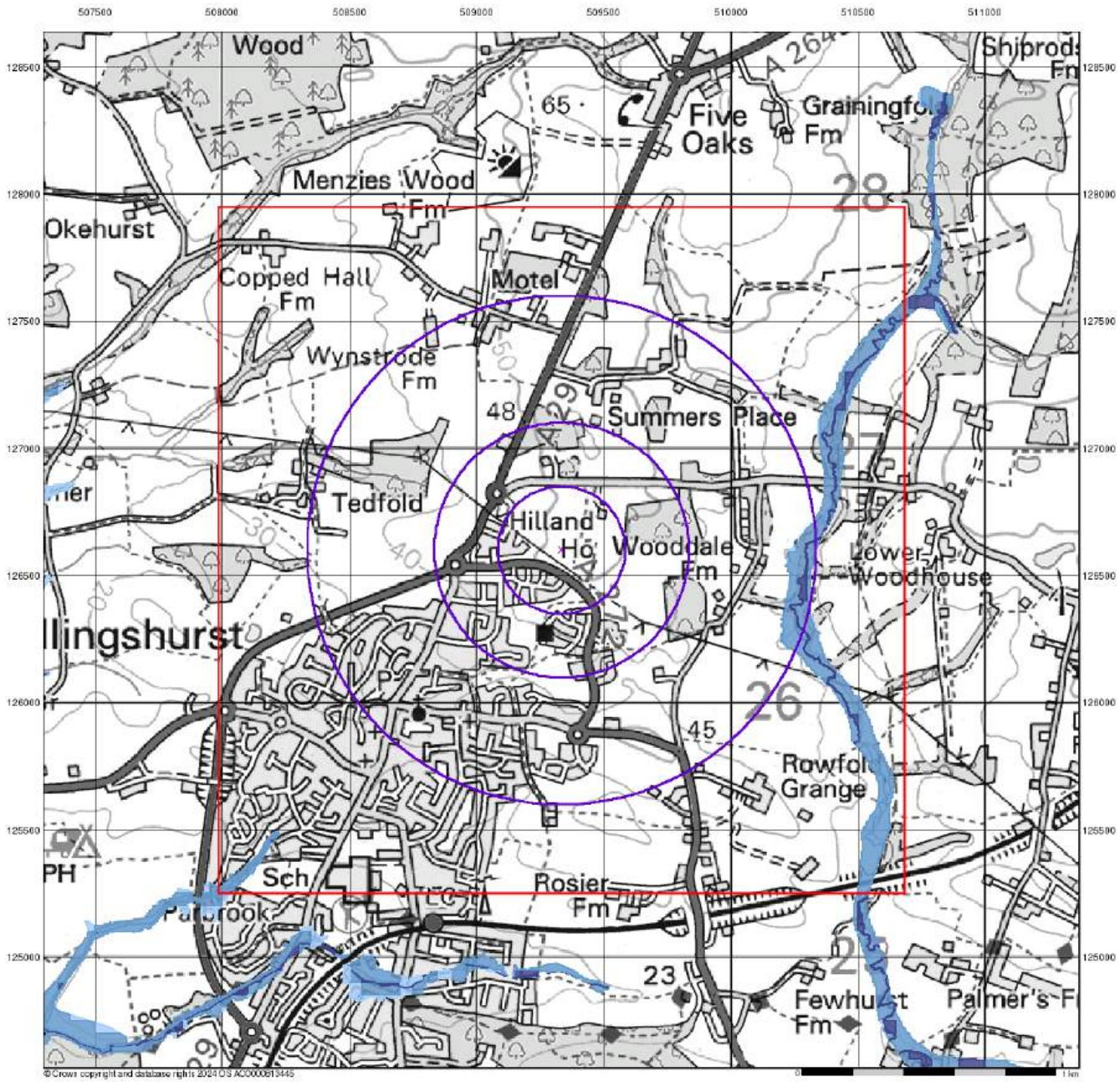
Order Details

Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

2 Old Hilland, Hilland Road, BILLINGSHURST, RH14 9HN

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



motion

EA/NRW RoFRS Data (1:50,000)

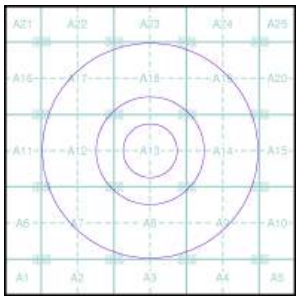
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Risk of Flooding from Rivers and Sea (RoFRS)

- High Risk
- Medium Risk
- Low Risk
- Very Low Risk

EA/NRW RoFRS Data Map - Slice A





Order Details

Order Number:	360250553_1_1
Customer Ref:	1dubil 1904029
National Grid Reference:	509330, 126600
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

2 Old Hilland, Hilland Road, BILLINGSHURST, RH14 9HN

Landmark INFORMATION GROUP

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

Appendix F

Southern Water Asset Records

Hilland House

Hilland Roundabout

A 29

STANE STREET

BECKS WAY

FREWEN CLOSE

CHAMBERLAIN CLOSE

RHODES WAY

RHODES WAY

PUTTOCK WAY

EVERSHED CLOSE

MANOR CLOSE

THE ALDERS

HIGH SEAT COPSE

Posts

High Seat

Barn

San Blas

Little Manor

Blackthorne

NORTH

150 mm VC

225 mm VC

150 mm PP

0801

0701

9601

9501

9502

9504

9503

8501

9401

9405

0402

0401

9402

9403

9404

0403

0302

8301

8302

1501

0m

100m

300m

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Date: 25/01/21

Scale: 1:1000

Map Centre: 509230,126590

Data updated: 18/01/21

Our Ref: 487518 - 1

Wastewater Plan A1

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2020 Ordnance Survey 100031673 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.

Foul Gravity Sewer
Combined Gravity Sewer
Culverted Water Course or Treated Effluent
Surface Water Gravity Sewer
Rising Main, Vacuum or Syphon
Combined Pumping Station
Surface Water Pumping Station
Foul Pumping Station
Water Treatment Works
Section 104 Area
Building Over Agreement Area
Foul Manhole
Combined Manhole
Surface Water Manhole
Side Entry Manhole, Desilnation Chamber, Surrey Manhole or Surface Water Soakaway
Combined Outfall
Foul Outfall
Surface Water Outfall
Surface Water Inlet

vholdo@motion.co.uk

Billingshurst

WATER for LIFE from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0302	F	41.82	38.77	
0401	F	42.60	40.88	
0402	F	43.25	41.02	
0403	F	42.07	40.73	
0701	F	44.49	42.17	
0801	F	47.75	45.91	
1501	F	36.82	0.00	
8301	F	37.16	35.38	
8302	F	0.00	0.00	
8501	F	41.80	40.24	
9401	F	40.98	38.84	
9402	F	37.72	35.53	
9403	F	38.47	36.50	
9404	F	39.97	37.93	
9405	F	42.95	41.20	
9501	F	45.21	40.83	
9502	F	0.00	0.00	
9503	F	42.16	40.80	
9504	F	42.80	40.47	
9601	F	46.57	41.48	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Appendix G

UKSuDS Greenfield Runoff Calculations

Greenfield runoff rate estimation for sites

www.uksuds.com | Greenfield runoff tool

Calculated by:	Vicki holdo
Site name:	Phase 3 Billingshurst
Site location:	Phase 3 Billingshurst

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013) , the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Site Details

Latitude:	51.02791° N
Longitude:	0.44102° W
Reference:	2587006574
Date:	Oct 09 2024 09:23

Runoff estimation approach

IH124

Site characteristics

Total site area (ha): 1

Methodology

Q_{BAR} estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Soil characteristics

	Default	Edited
SOIL type:	4	4
HOST class:	N/A	N/A
SPR/SPRHOST:	0.47	0.47

Hydrological characteristics

	Default	Edited
SAAR (mm):	774	774
Hydrological region:	7	7
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19
Growth curve factor 200 years:	3.74	3.74

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited

Q_{BAR} (l/s):	5.43	5.43
1 in 1 year (l/s):	4.62	4.62
1 in 30 years (l/s):	12.49	12.49
1 in 100 year (l/s):	17.32	17.32
1 in 200 years (l/s):	20.31	20.31

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

Appendix H

Environment Agency Flood Product 4 Data Set

Flood map for planning

Your reference	Location (easting/northing)	Created
<Unspecified>	**509403/126561**	**8 Oct 2024 13:59**

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following:**

- bigger that 1 hectare (ha)
- In an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence **which** sets out the terms and conditions for using government data. https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. https://flood-map-for-planning.service.gov.uk/os-terms



Environment Agency

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
509403/126561

Scale
1:2500

Created
8 Oct 2024 13:59

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60m

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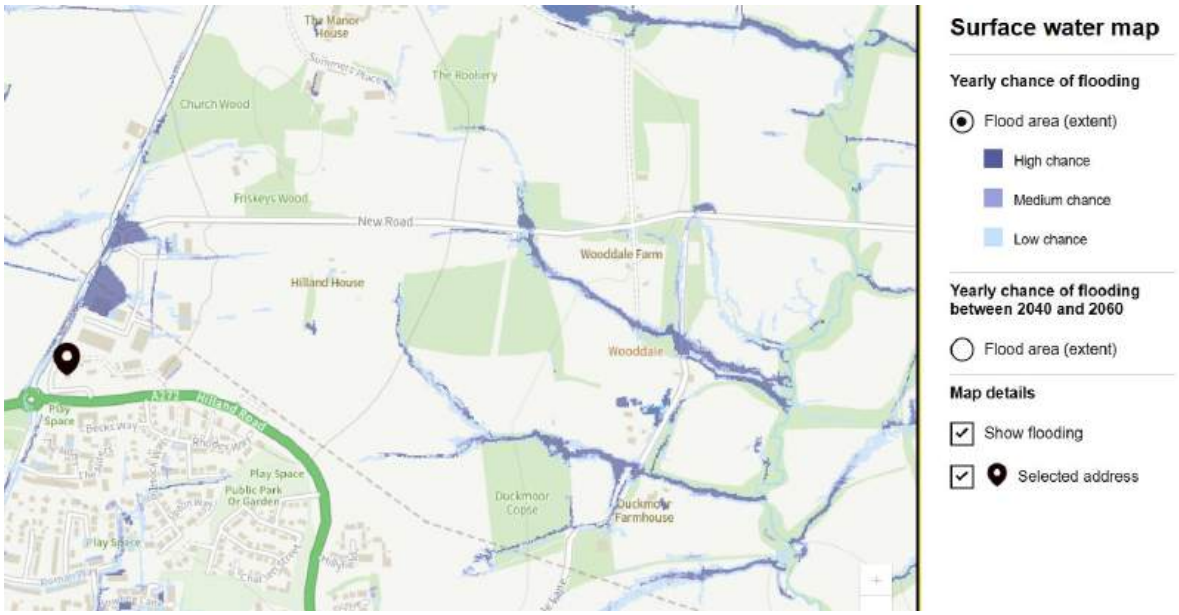
Appendix I

Environment Agency Risk of Flooding from Surface Water (RoFSW) map

EA Current yearly Surface Water Flood Map (Updated EA 2025 Maps)



EA Yearly chance of flooding between 2040 and 2060 Surface Water Flood Map (Updated EA 2025 Maps)



Appendix J

Impermeable Area Plan

north

+48.2

+48.4

16a

358+68m2 GEA
(333+57m2 GIA)

347+64m2 GEA
(331+57m2 GIA)

16b

358+68m2 GEA
(333+57m2 GIA)

16c

1,910+190m2 GEA
(1,835+168m2 GIA)

17

2,825+335m2 GEA
(2,735+305m2 GIA)

18

Plots 71-80 (10 Apts)

39 33 38 34 36 37 35 64 65 66 67 68 49 59 50 58 51 57 52 53 56 54 55

3bh 4bh

59.2m

Pond

PROPOSED SITE
13,754sqm (3.40 Acre)

PROPOSED UNIT

DISPLAY AREA

DISPLAY YARD
TARMACADAM

STORAGE YARD
COMPACTED SURFACE

STAFF CAR PARKING

VISITOR CAR PARKING

ENTRANCE

ELECTRIC SLIDING GATE

SITE BOUNDARY

Track

Mast (Telecommunication)

overhead
electricity cables
and pylon

ETL

CHAMBERLAIN CLOSE

17 19 27 35 54

0 20 40 60 80m
SCALE IN METRES
1:1000

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C:\Users\matthewhands\Motion\Staff\Site - Iobuti 1904029\Drawings\1904029-P3-9001-P01 (Phase 3 - Impermeable Areas).dwg

Legend

Impermeable Areas - Roofs
Total Area - 1,373 m² [0.14 ha]

Impermeable Areas - Roads/Paving
Total Area - 10,355 m² [1.04 ha]

Rev.	Description	Drn	Chk	App	Date
P01	First Issue	MH	VBH	NJ	26/06/2025

Drawing Status:

FOR PLANNING
NOT FOR CONSTRUCTION

motion
Guildford - Reading - London
www.motion.co.uk

Client: DUNMOORE

Project:
Trade Park Billingshurst
Stane Street, Billingshurst

Title:
Phase 3 Works
Impermeable Areas Plan

Scale: 1:500 (@ A1)

Drawing: 1904029-P3-9001

Revision: P01

Appendix K

Proposed Drainage Strategy

Legend

- Permeable Paving on Type 3 Sub-base
  Total Area: 1450 m²
  Depth: 0.45 m
  Void Ratio: 30%
  Total Volume: 196 m³
- Cellular Crate Attenuation Tank
  Total Area: 1420 m²
  Depth: 0.8 m
  Void Ratio: 95%
  Total Volume: 1079 m³
- Surface Water Gravity Pipe
- Surface Water 100mmØ Private Drain
- Linear Drainage Channel
- Surface Water Gully with 150mmØ Pipe Connection
- Surface Water Manhole / Inspection Chamber
- Surface Water Flow Control Chamber
- Surface Water Oil Separator
- 450mmØ Inspection Chamber
- Surface Water Outfall
- Surface Water Rodding Eye
- Rainwater Pipe
- 12,000 L Rainwater Harvesting Tank

P02	Updated following LLFA comments	MH	MH	NJ 03/07/2025
P01	First Issue	MH	VBH	NJ 26/06/2025
Rev.	Description	Drn	Chk	App Date

Drawing Status:
FOR PLANNING
NOT FOR CONSTRUCTION

motion
Guildford - Reading - London
www.motion.co.uk

Client: DUNMOORE

Project:
Trade Park Billingshurst
Stane Street, Billingshurst

Title:
Phase 3 Works
Outline Drainage Strategy

Scale: 1:500 (@ A1)

Drawing: 1904029-P3-0501
Revision: P02

SCALE IN METRES
1:1000

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Appendix L

MicroDrainage Calculations

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model

Return Period (years)	100
FEH Rainfall Version	1999
Site Location	GB 508550 126900 TQ 08550 26900
C (1km)	-0.028
D1 (1km)	0.344
D2 (1km)	0.350
D3 (1km)	0.357
E (1km)	0.313
F (1km)	2.492
Maximum Rainfall (mm/hr)	50
Maximum Time of Concentration (mins)	30
Foul Sewage (l/s/ha)	0.000
Volumetric Runoff Coeff.	1.000
PIMP (%)	100
Add Flow / Climate Change (%)	0
Minimum Backdrop Height (m)	0.000
Maximum Backdrop Height (m)	20.000
Min Design Depth for Optimisation (m)	1.200
Min Vel for Auto Design only (m/s)	1.00
Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	33.420	0.575	58.1	0.119	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.001	53.648	0.150	357.7	0.211	0.00	0.0	0.600	o	375	Pipe/Conduit	
1.002	39.076	0.600	65.1	0.236	0.00	0.0	0.600	o	375	Pipe/Conduit	
1.003	33.833	0.875	38.7	0.240	0.00	0.0	0.600	o	375	Pipe/Conduit	
2.000	52.528	1.050	50.0	0.348	5.00	0.0	0.600	o	300	Pipe/Conduit	
1.004	12.196	0.160	76.2	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit	
1.005	13.706	0.140	97.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.42	53.800	0.119	0.0	0.0	0.0	1.32	23.4	21.5
1.001	50.00	6.36	53.000	0.330	0.0	0.0	0.0	0.95	105.2	59.6
1.002	50.00	6.65	52.850	0.566	0.0	0.0	0.0	2.25	248.3	102.2
1.003	50.00	6.84	52.250	0.806	0.0	0.0	0.0	2.92	322.7	145.5
2.000	50.00	5.39	52.700	0.348	0.0	0.0	0.0	2.23	157.5	62.8
1.004	50.00	6.94	51.300	1.154	0.0	0.0	0.0	2.08	229.4	208.3
1.005	50.00	5.22	51.140	0.000	6.4	0.0	0.0	1.02	17.9	6.4

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	150	1.000	55.200	53.800	1.250	Open Manhole	1200
1.001	o	375	1.001	54.500	53.000	1.125	Open Manhole	1350
1.002	o	375	1.002	54.250	52.850	1.025	Open Manhole	1350
1.003	o	375	1.003	53.500	52.250	0.875	Open Manhole	1350
2.000	o	300	2.000	54.050	52.700	1.050	Open Manhole	1200
1.004	o	375	1.004	52.700	51.300	1.025	Open Manhole	1350
1.005	o	150	1.005	52.230	51.140	0.940	Open Manhole	1350

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	33.420	58.1	1.001	54.500	53.225	1.125	Open Manhole	1350
1.001	53.648	357.7	1.002	54.250	52.850	1.025	Open Manhole	1350
1.002	39.076	65.1	1.003	53.500	52.250	0.875	Open Manhole	1350
1.003	33.833	38.7	1.004	52.700	51.375	0.950	Open Manhole	1350
2.000	52.528	50.0	1.004	52.700	51.650	0.750	Open Manhole	1350
1.004	12.196	76.2	1.005	52.230	51.140	0.715	Open Manhole	1350
1.005	13.706	97.9	7	52.190	51.000	1.040	Open Manhole	1350

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Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	User	-	100	0.119	0.119	0.119
1.001	User	-	100	0.211	0.211	0.211
1.002	User	-	100	0.236	0.236	0.236
1.003	User	-	100	0.052	0.052	0.052
	User	-	100	0.188	0.188	0.240
2.000	User	-	100	0.348	0.348	0.348
1.004	-	-	100	0.000	0.000	0.000
1.005	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				1.154	1.154	1.154

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.005	7	52.190	51.000	0.000	1350	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Offline Controls	0	Number of Time/Area Diagrams	0
Number of Online Controls	1	Number of Storage Structures	7	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FEH	E (1km)	0.313
Return Period (years)	100	F (1km)	2.492
FEH Rainfall Version	1999	Summer Storms	Yes
Site Location	GB 508550 126900 TQ 08550 26900	Winter Storms	No
C (1km)	-0.028	Cv (Summer)	1.000
D1 (1km)	0.344	Cv (Winter)	0.840
D2 (1km)	0.350	Storm Duration (mins)	30
D3 (1km)	0.357		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: 1.005, DS/PN: 1.005, Volume (m³): 2.8

Unit Reference	MD-SHE-0113-6400-1400-6400
Design Head (m)	1.400
Design Flow (l/s)	6.4
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	113
Invert Level (m)	51.140
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.400	6.4	Kick-Flo®	0.858	5.1
Flush-Flo™	0.413	6.4	Mean Flow over Head Range	-	5.6

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.9	0.800	5.5	2.000	7.6	4.000	10.5	7.000	13.7
0.200	5.8	1.000	5.5	2.200	7.9	4.500	11.1	7.500	14.1
0.300	6.2	1.200	6.0	2.400	8.2	5.000	11.7	8.000	14.6
0.400	6.4	1.400	6.4	2.600	8.6	5.500	12.2	8.500	15.0
0.500	6.3	1.600	6.8	3.000	9.1	6.000	12.7	9.000	15.4
0.600	6.2	1.800	7.2	3.500	9.8	6.500	13.2	9.500	15.8

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Storage Structures for Storm

Porous Car Park Manhole: 1.000, DS/PN: 1.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	20.0
Max Percolation (l/s)	55.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	53.730	Membrane Depth (mm)	130

Porous Car Park Manhole: 1.001, DS/PN: 1.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	30.0
Max Percolation (l/s)	83.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	53.075	Membrane Depth (mm)	130

Porous Car Park Manhole: 1.002, DS/PN: 1.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	35.0
Max Percolation (l/s)	97.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	52.925	Membrane Depth (mm)	130

Porous Car Park Manhole: 1.003, DS/PN: 1.003

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	25.0
Max Percolation (l/s)	69.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	52.325	Membrane Depth (mm)	130

Porous Car Park Manhole: 2.000, DS/PN: 2.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	35.0
Max Percolation (l/s)	97.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	52.700	Membrane Depth (mm)	130

Tank or Pond Manhole: 1.004, DS/PN: 1.004

Invert Level (m) 51.300

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	1420.0	0.800	1420.0	0.810	0.0

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Swale Manhole: 1.005, DS/PN: 1.005

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	62.0
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	1.00	Cap Volume Depth (m)	0.000
Invert Level (m)	51.240	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.5	Include Swale Volume	Yes

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 7 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH	D3 (1km)	0.357
FEH Rainfall Version	1999	E (1km)	0.313
Site Location	GB 508550 126900 TQ 08550 26900	F (1km)	2.492
C (1km)	-0.028	Cv (Summer)	1.000
D1 (1km)	0.344	Cv (Winter)	1.000
D2 (1km)	0.350		

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 40, 45

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)
1.000	1.000	15 Summer	1	+0%	30/15 Summer				53.886	-0.064
1.001	1.001	30 Summer	1	+0%	30/15 Summer				53.163	-0.212
1.002	1.002	30 Summer	1	+0%	30/15 Summer				52.985	-0.240
1.003	1.003	15 Summer	1	+0%	30/15 Summer				52.397	-0.228
2.000	2.000	15 Summer	1	+0%	30/15 Summer				52.830	-0.170
1.004	1.004	960 Summer	1	+0%	30/120 Summer				51.428	-0.247
1.005	1.005	960 Summer	1	+0%	1/15 Summer				51.426	0.136

PN	US/MH Name	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	1.000	0.000	0.61		9	13.8	OK	
1.001	1.001	0.000	0.38		6	37.3	OK	
1.002	1.002	0.000	0.28		6	63.3	OK	
1.003	1.003	0.000	0.32		6	92.6	OK	
2.000	2.000	0.000	0.39		5	57.6	OK	
1.004	1.004	0.000	0.04			6.3	OK	
1.005	1.005	0.000	0.38		396	6.2	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 7 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH	D3 (1km)	0.357
FEH Rainfall Version	1999	E (1km)	0.313
Site Location	GB 508550 126900 TQ 08550 26900	F (1km)	2.492
C (1km)	-0.028	Cv (Summer)	1.000
D1 (1km)	0.344	Cv (Winter)	1.000
D2 (1km)	0.350		

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 40, 45

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)
1.000	1.000	15 Summer	30	+40%	30/15 Summer				54.235	0.285
1.001	1.001	15 Summer	30	+40%	30/15 Summer				53.498	0.123
1.002	1.002	15 Summer	30	+40%	30/15 Summer				53.289	0.064
1.003	1.003	15 Summer	30	+40%	30/15 Summer				52.786	0.161
2.000	2.000	15 Summer	30	+40%	30/15 Summer				53.194	0.194
1.004	1.004	960 Winter	30	+40%	30/120 Summer				51.861	0.186
1.005	1.005	960 Winter	30	+40%	1/15 Summer				51.858	0.568

PN	US/MH Name	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	1.000	0.000	1.19		12	26.7	SURCHARGED	
1.001	1.001	0.000	1.18		7	115.7	SURCHARGED	
1.002	1.002	0.000	0.94		5	211.6	SURCHARGED	
1.003	1.003	0.000	1.09		7	316.0	SURCHARGED	
2.000	2.000	0.000	1.09		5	162.6	SURCHARGED	
1.004	1.004	0.000	0.11			16.8	SURCHARGED	
1.005	1.005	0.000	0.39		678	6.4	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 7 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH	D3 (1km)	0.357
FEH Rainfall Version	1999	E (1km)	0.313
Site Location	GB 508550 126900 TQ 08550 26900	F (1km)	2.492
C (1km)	-0.028	Cv (Summer)	1.000
D1 (1km)	0.344	Cv (Winter)	1.000
D2 (1km)	0.350		

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 40, 45

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)
1.000	1.000	15 Summer	100	+45%	30/15 Summer				54.583	0.633
1.001	1.001	15 Summer	100	+45%	30/15 Summer				53.827	0.452
1.002	1.002	15 Summer	100	+45%	30/15 Summer				53.627	0.402
1.003	1.003	15 Summer	100	+45%	30/15 Summer				53.112	0.487
2.000	2.000	15 Summer	100	+45%	30/15 Summer				53.616	0.616
1.004	1.004	1440 Winter	100	+45%	30/120 Summer				52.222	0.547
1.005	1.005	1440 Winter	100	+45%	1/15 Summer				52.219	0.929

PN	US/MH Name	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	1.000	0.000	1.29		18	28.9	SURCHARGED	
1.001	1.001	0.000	1.32		12	129.2	SURCHARGED	
1.002	1.002	0.000	1.01		8	227.9	SURCHARGED	
1.003	1.003	0.000	1.25		8	361.0	SURCHARGED	
2.000	2.000	0.000	1.26		7	187.8	SURCHARGED	
1.004	1.004	0.000	0.11			17.8	SURCHARGED	
1.005	1.005	0.000	0.39		758	6.4	FLOOD RISK	

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Appendix M

Exceedance Plan

north

+48.2

+48.4

16a

358+68m2 GEA
(333+57m2 GIA)

347+64m2 GEA
(331+57m2 GIA)

16b

358+68m2 GEA
(333+57m2 GIA)

16c

Plots 71-80 (10 Apts)

1,910+190m2 GEA
(1,835+168m2 GIA)

17

2,825+335m2 GEA
(2,735+305m2 GIA)

18

PROPOSED UNIT
Use: Industrial
Floorspace: 14,290sqft (1,327sqm) GEA
(1,280sqm / 13,778sqft GIA)

PROPOSED SITE
13,754sqm (3.40 Acre)

59.2m

Pond

Track

Mast (Telecommunication)

overhead
electricity cables
and pylon

ETL

CHAMBERLAIN CLOSE

SITE BOUNDARY

0 20 40 60 80m
SCALE IN METRES
1:1000

Legend

- Exceedance Flow Direction Arrow
- Exceedance Flow Storage Area

P01 First Issue — MH VBH NJ 26/06/2025
Rev. Description — Drn Chk App Date

Drawing Status:
FOR PLANNING
NOT FOR CONSTRUCTION

motion
Guildford - Reading - London
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Client:
DUNMOORE

Project:
Trade Park Billingshurst
Stane Street, Billingshurst

Title:
Phase 3 Works
Exceedance Flows Plan

Scale: 1:500 (@ A1)

Drawing: 1904029-P3-0505
Revision: P01

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