



**AN APPLICATION FOR AN ENVIRONMENTAL PERMIT
TO AUTHORISE THE DEPOSITION OF WASTE ON
LAND AS A RECOVERY ACTIVITY FOR THE
RESTORATION OF WILLINGTON LOCK QUARRY, ST
NEOTS ROAD, BEDFORD TO AGRICULTURE AND
NATURE CONSERVATION**

APPENDIX F

**ENVIRONMENTAL SETTING AND SITE DESIGN
REPORT (ESSD)**

Report reference: BRE/WL/SE/1729/01/ESSD
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¹ The Environment Agency Template: Conceptual Site Model, Environmental Setting and Site Design Report. Version 1 dated 14 October 2016 (the ESSD Template) provides a suggested list of drawings to illustrate the conceptual site model and environmental setting and states that "You can use other formats as long as you present all of the required information". The drawings listed above have been prepared with reference to the relevant features included in the ESSD Template. The features in the ESSD Template relevant to Figure ESSD 3, 4, 5, 6 and 12 are shown on other drawings included with this application. It is acknowledged that the ESSD template has been updated but the information provided in the drawings remains valid under the updated guidance.

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- Appendix ESSD B Planning permission reference CB/17/05654/MW
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- Appendix ESSD D Drawing reference 18-01-01 entitled 'Topographical survey revised phases'
- Appendix ESSD E Envirocheck Report (222376098_1_1)
- Appendix ESSD F Drawing reference W16_LAN_022 Rev A entitled Restoration Strategy (pipeline retained)
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This report has been prepared by MJCA with all reasonable skill, care and diligence, and taking account of the Services and the Terms agreed between MJCA and the Client. This report is confidential to the client and MJCA accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by MJCA beforehand. Any such party relies upon the report at their own risk.

1. Introduction

Report context

- 1.1** MJCA is commissioned by Breedon Trading Limited (Breedon) to prepare an application for a bespoke Environmental Permit for the deposition of waste on land as a recovery activity in order to restore the mineral extraction area at Willington Lock Quarry, St Neots Road, near Bedford (the site) to agriculture and nature conservation. This report comprises the Environmental Setting and Site Design (ESSD) report including the Conceptual Site Model to support the application. The ESSD has been prepared with reference to the latest Environmental Agency (EA) guidance on what to include in your Environmental Setting and Site Design report published by the EA on GOV.UK on 30 January 2020² (the ESSD Guidance).
- 1.2** A Waste Recovery Plan (WRP) presenting justification that the activity comprises recovery was submitted to the EA on 19 December 2019. Further information in respect of the recovery status of the activity was submitted to the EA on 28 February 2020 and in a letter dated 11 March 2019 the EA confirmed that the activity comprises recovery. The WRP is presented at Appendix B to the application report. The further submission to the EA dated 28 February 2020 is presented at Appendix C to the application report. The letter from the EA dated 11 March 2020 confirming that the activity comprises recovery is presented at Appendix D to the application report.
- 1.3** Willington Lock Quarry is located in the administrative areas of Central Bedfordshire Council and Bedford Borough Council. Planning permissions references CB/17/05654/MW and 17/03351/EIAWM for the *'Extraction of sand and gravel; installation of mineral processing plant, construction of a quarry access onto St Neots Road; installation of a temporary access road crossing the River Ouse; restoration of extraction area partly using imported inert material'* were granted on 21 May 2019 by Central Bedfordshire Council and Bedford Borough Council respectively. The boundary of planning permissions references CB/17/05654/MW and 17/03351/EIAWM is shown on the location plan presented at Appendix ESSD A and copies of the planning permissions are is presented at Appendices ESSD B and ESSD C respectively. The mineral extraction area at Willington Lock Quarry is

² <https://www.gov.uk/guidance/landfill-operators-environmental-permits/what-to-include-in-your-environmental-setting-and-site-design-report>

located in the administrative area of Central Bedfordshire Council in the east of the area the subject of the planning permissions.

Site details

- 1.4** The area the subject of the Environmental Permit application at Willington Lock Quarry is located approximately 760m east north east of Willington and 830m south west of Great Barford. The area the subject of the Environmental Permit application is referred to as the site. The eastern extent of Bedford is located approximately 3km west of the site. The site the subject of the Environmental Permit application is shown on Figure ESSD 1. The site is centred approximately on National Grid Reference (NGR) TL 125 505 and covers an area of approximately 31.7 hectares. The site is accessed from St Neots Road which runs in a generally east west direction approximately 690m north of the site. An internal haul road first runs in a southerly direction from St Neots Road through the site reception area before turning east to run parallel with and north of the River Great Ouse and then crossing the River Great Ouse and entering the site via a bailey bridge to the north west of the site. The site access route is shown on Figure ESSD 2.
- 1.5** The site is located in a predominantly rural area. The site is bounded to the north west by The River Great Ouse and to the south east by the Barford Road. Both the River Great Ouse and Barford Road run generally from the south west to the north east in the area of the site. The River Great Ouse flows towards the north east. The north eastern and south western site boundaries are generally demarcated by field boundaries comprising trees and hedgerows. Prior to mineral extraction the site was generally flat and the ground level at the site fell gently towards the River Great Ouse. The ground level at the northern site boundary in the vicinity of The River Great Ouse is approximately 18.5mAOD and the ground level at the southern site boundary in the vicinity of Barford Road is approximately 22.5mAOD. The results of a topographical survey carried out at the site on 1 January 2018 prior to the commencement of mineral extraction operations are presented on the drawing presented at Appendix ESSD D. There are several other water bodies and water courses in the vicinity site which are described in Section 3.
- 1.6** There are four phases of mineral extraction at the site. Phase 1 is located in the south western area of site, Phase 2 is located in the south eastern area of the site, Phase 3 is located in the north western area of the site and Phase 4 is located in the

north eastern area of the site. Mineral extraction operations commenced in March 2021 and are ongoing in Phase 1. Mineral is being extracted to a level of approximately 4.5m below ground level. The site is being dewatered and the mineral is worked dry. Water extracted from the site is discharged to the River Great Ouse adjacent to the north eastern site boundary. The discharge is the subject of Environmental Permit reference EPR/AP3727XH for the discharge of settled groundwater derived from dewatering.

- 1.7** The closest property to the site is Old Mills Cottage which is located approximately 220m north east of the site on the southern bank of the River Great Ouse. Old Mills Cottages is a Grade II listed building. Mill Farm is located approximately 370m west south west of the site and Mill Farm Cottages and Barford Road Farm are located approximately 375m west south west of the site. The site and surrounding area is shown on Figure ESSD 2. Other than Old Mills Cottages there are no other listed buildings within 500m of the site. There are several public rights of way at and in the vicinity of the site as shown on Figure ESSD 2. National Cycle Route 51 which is also referred to as the Bedford to Sandy Way in the area of the site crosses the site in a generally east west direction between Phases 1 and 2 in the south and Phases 3 and 4 in the north. National Cycle Route 51 is linked to National Cycle Route 12 approximately 400m east of the site. National Cycle Route 12 and runs in a generally north easterly direction from National Cycle Route 51.
- 1.8** Footpath 3 crosses the northern part of the site generally from north east to south west. At the northern corner of the site there is a short section of Footpath 3 which runs adjacent to the southern bank of the River Great Ouse. Approximately 200m east of the site Footpath 3 joins Footpath 4 which crosses over the River Great Ouse and runs in a generally north easterly direction towards Great Barford. Footpath 3 continues in a south westerly direction to the west of the site towards Willington. Approximately 220m west of the site Footpath 2 joins Footpath 3. Footpath 2 crosses over the River Great Ouse and then runs in a generally westerly direction. Approximately 40m north of the site and beyond the River Great Ouse Bridleway 23 runs in a north easterly direction adjacent to the northern boundary of the River Great Ouse. Bridleway 8 runs in a generally south westerly direction approximately 150m south of the site.
- 1.9** It is understood that during the mineral extraction and restoration operations Footpath 3 and National Cycle Route 51 will be diverted. Footpath 3 will be diverted round

the northern boundary of the site and National Cycle Route 51 will be diverted round the eastern, northern and western boundaries of the site. To the north of the site Footpath 3 and National Cycle Route 51 will follow the same route. The proposed diverted routes are shown on Figure ESSD 2.

- 1.10** There is a high-pressure gas main running in a generally east – west direction through the site consistent with the route of National Cycle Route 51 which crosses the site in a generally east west direction between Phases 1 and 2 in the south and Phases 3 and 4 in the north. It is understood from Breedon that they consider it is highly unlikely that the gas pipeline will be removed, although ultimately this is a decision which will be taken by its owner, Cadent. Given that there will be a significant cost to divert this apparatus the most cost-effective solution to Cadent will be to leave the apparatus in-situ and to recompense Breedon for loss of profits through retention of a 'pillar of support'. There is an overhead power line which crosses the site. The power line enters the site from a pylon mid-way along the north eastern site boundary and a pylon in the north western corner of the site to a pylon located centrally in the site.
- 1.11** Based on information reviewed on Defra's MAGIC website there are no Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar Sites, Local Nature Reserves (LNRs) or National Nature Reserves (NNRs) located within 2 km of the site.

2. Source

Historical development

- 2.1 Historical maps for the period 1864 to 2019 are provided with the Envirocheck report presented at Appendix ESSD E. With the exception of overhead power lines and access tracks on the site there has been no historical development within the site boundary based on a review of the historical maps. There are a number of areas of infilled, worked, landscaped and disturbed land which include historical landfill sites in the vicinity of the site which are shown on the geological map presented at Figure ESSD 8. Information in respect of pollution incidents in the area of the site are presented in Section 3.

Proposed development

- 2.2 As explained in Section 1 the site comprises 4 phases which are shown on Figure ESSD 2. Phases 1 and 2 are located in the southern area of the site and Phases 3 and 4 are located in the northern area of the site. The site covers an area of approximately 31.7 hectares. Approximately 867,000 tonnes of sand and gravel will be extracted from the site. As explained in Section 1 there is a high-pressure gas main running in a generally east – west direction through the site crosses the site in a generally east west direction between Phases 1 and 2 in the south and Phases 3 and 4 in the north. It is understood from Breedon that they consider it is highly unlikely that the gas pipeline will be removed, although ultimately this is a decision which will be taken by its owner, Cadent. Given that there will be a significant cost to divert this apparatus the most cost-effective solution to Cadent will be to leave the apparatus in-situ and to recompense Breedon for loss of profits through retention of a ‘pillar of support’.
- 2.3 The site will be restored to agriculture and nature conservation interest by the importation of inert restoration materials and on site soils and overburden. The consented restoration scheme based on the high-pressure gas main being retained is shown on drawing reference W16_LAN_022 Rev A a copy of which is presented at Appendix ESSD F. It is anticipated that approximately 447,000m³ of inert restoration materials will be needed to complete the restoration of the site.
- 2.4 The total quantity of waste that will need to be deposited to complete the restoration is limited by the final levels shown on the consented restoration scheme (Appendix

ESSD F). Cross sections through the site are presented on drawing reference W16_LAN_023 Rev A presented at Appendix ESSD G. The location of the cross section presented at Appendix ESSD G is shown on drawing reference W16_LAN_022 Rev. A presented at Appendix ESSD F.

- 2.5** The waste types that will be accepted at the site the subject of the Environmental Permit are presented in Table ESSD 1. The waste types in Table ESSD 1 are consistent with those specified in the EA guidance “Waste acceptance procedures for deposit for recovery”³ published by the EA on GOV.UK on 21 April 2021 as the types of waste a producer may not need to test. Detailed waste acceptance procedures will be in place to minimise the risk that unacceptable waste materials are accepted at the site and procedures will be in place for the rejection of non-conforming loads. The waste acceptance procedures are presented at Appendix L of the application report. The receipt, handling and storage of materials are the subject of procedures in the company management system which is the subject of the ISO 14001 Environmental Management System (EMS).

³ <https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-acceptance-procedures-for-deposit-for-recovery>

3. Pathway and receptor

Geology

- 3.1** The geology at and in the vicinity of site is taken from the British Geological Survey (BGS) 1:50,000 scale solid and drift maps of Bedford (sheet 203) and Biggleswade (sheet 204), from information on the BGS website and from records of groundwater monitoring boreholes provided by Breedon presented at Appendix ESSD H. A map showing the geology at and in the vicinity of the site is presented on Figure ESSD 8 together with a hydrogeological cross section presented on Figure ESSD 11. The locations of the groundwater monitoring boreholes are shown on Figure ESSD 10.
- 3.2** Based on the geological information presented on the British Geological Survey maps of Bedford (sheet 203) and Biggleswade (sheet 204) the area in the vicinity of the site is underlain by superficial deposits comprising Quaternary alluvium and river terrace deposits of the Ouse Valley Formation. The alluvium consists of clay and silt with peat layers and underlies the majority of the site. The river terrace deposits comprise silt, sand and gravel and underlie the southern corner of the site.
- 3.3** Areas of artificially modified ground are shown on the geology map surrounding the site as shown on Figure ESSD 8. Worked ground is located to the east and north west of the site together with infilled ground located adjacent to and south-south west of the southern corner of the site.
- 3.4** Based on the BGS solid and drift maps of Bedford (sheet 203) and Biggleswade (sheet 204) the superficial deposits are underlain by bedrock comprising the Peterborough Member and Stewartby and Weymouth Members of the Jurassic Oxford Clay Formation. The Peterborough Member comprises brownish grey organic rich mudstone interbedded with grey calcareous mudstone beds. Approximately 140m south east of the site the Stewartby and Weymouth Members which consists of mudstone is underlain by the Peterborough Member. The Oxford Clay Formation is underlain by the Jurassic Kellaways Formation which comprises a sand member and a clay member. The Kellaways Formation is underlain by the Jurassic Great Oolite Group which comprises a succession of limestones and mudstones.
- 3.5** Based on the BGS solid and drift map of Bedford (sheet 203) the Peterborough Member of the Oxford Clay Formation is recorded as being between 21m to 24m thick in the region. Based on information recorded on the borehole logs of the

boreholes drilled at the site in November 2015 and April 2016 the sand and gravel deposits of the river terrace deposits is recorded between a thickness of 0.9m in borehole P41 adjacent to the northern corner of the site and 2.4m in borehole P45 located adjacent to the eastern corner of the site. The borehole locations are shown on Figure ESSD 10. The borehole logs record the Peterborough Member between a thickness of 0.5m in borehole 224/16 and 0.9m in borehole 231/16 however the base of the clay was not proved. The BGS website records the thickness of the Oxford Clay Formation at approximately 25.5m in a borehole located approximately 2.6km north east from the site.

Hydrology

- 3.6** The hydrology at and in the vicinity of the site is based on a review of published Ordnance Survey maps and information provided by the .
- 3.7** The River Great Ouse flows generally south west to north east adjacent to the north western boundary of the site. The Gadsey Brook, which is a tributary of the River Great Ouse, flows generally west to east approximately 350m west of the site at the closest point. Based on the EA catchment data explorer website the site is located in the catchment of the River Great Ouse. Several water bodies are located in the vicinity of the site with a lake located approximately 75m east of the eastern boundary of the site and a lake located approximately 100m north west of the north western boundary of the site. On Ordnance Survey maps a drain orientated south west to north east is located approximately 15m south east of the site at the closest point adjacent to the south eastern side of Barford Road. The watercourses and waterbodies in the vicinity of the site are shown on Figures ESSD 1 and ESSD 10.
- 3.8** Based on information presented on the National River Flow Archive website the EA maintains a river flow gauging station on the River Great Ouse in Roxton (reference 33039) at NGR TL 16000 53400 approximately 5km north east and downstream of the site. It is reported that the 95% exceedance flow (Q95) at river flow gauging station reference 33039 is 1.99m³/s. Data is also available at a river flow gauging station on the River Great Ouse in Bedford (reference 33002) at NGR TL 05300 49500 approximately 3.4km upstream of the site. It is reported that the 95% exceedance flow (Q95) at river flow gauging station reference 33002 is 1.13m³/s.
- 3.9** Based on the information provided on the GOV.UK Flood map for planning website (<https://flood-map-for-planning.service.gov.uk/>) the majority of the site is located

within Flood Zone 3. The southern part of the site is located within Flood Zone 1 and there is a narrow area of land between Flood Zones 3 and 1 which is in Flood Zone 2. The National Cycle Route located through the central area of the site and two small areas to the north of the cycle path are also located in Flood Zone 2. Flood Zone 3 is defined in the National Planning Policy Framework Planning Practice Guidance on flood risk as land having a 1 in 100 or greater annual probability of river flooding. Flood Zone 2 is defined as land having between a 1 in 100 and 1 in 1000 annual probability of river flooding. Flood Zone 1 is defined as land having less than 1 in 1000 annual probability of river flooding.

- 3.10** Based on information provided by the EA there has been one recorded 'Significant' pollution incident to water within a 2km radius from a central point within the site. The pollution incident occurred approximately 1.5km north of the site, the cause of the pollution incident and the pollutant are not recorded. Details of past pollution incidents within approximately 5km of a point located approximately at the centre of the site are presented at Appendix ESSD I.
- 3.11** Based on information provided by the EA there are three historical landfill sites recorded within a 2km radius of the site boundary. The nearest historical landfill to the site is recorded as Darnells Field which is located approximately 985m south west of the site. The waste deposited in the landfill is recorded as inert and industrial waste. There is one authorised landfill site recorded within a 2km radius of the site boundary which is Dairy Farm Landfill Site located approximately 420m west of the site. Dairy Farm is registered as an inert landfill site and is operated by Breedon. Further details of the historical and authorised landfill sites located within approximately 5km of a point located approximately at the centre of the site are presented at Appendix ESSD I.
- 3.12** The quality of the surface water in the vicinity of the site is classified by the EA under the Water Framework Directive (WFD). The EA WFD classifications are presented on the EA catchment data explorer website. The Ouse (Newport Pagnell to Roxton) was recorded as a 'Moderate' ecological quality and a 'Good' chemical quality classification in 2016.
- 3.13** Based on information provided by the EA there are twelve surface water abstractions located within approximately 2km of a point located approximately at the centre of the site. The surface water abstraction licences include both single points of

abstraction and reaches in the waterbody. The nearest surface water abstraction is licence number 6/33/12*S/0019 for a surface water abstraction point located approximately 165m south of the site with the water recorded as being abstracted from the watercourse near Willowhill Farm for 'General Agriculture: Spray Irrigation – Direct'. The approximate locations of the abstractions located within approximately 2km of a point located approximately at the centre of the site are shown on Figure ESSD 9. Information on abstractions within approximately 5km of a point located approximately at the centre of the site are presented at Appendix ESSD I.

- 3.14** Based on information provided by the EA there are four active discharge consents within approximately 2km of a point located approximately at the centre of the site. Further information on the active discharge consents within approximately 5km of a point located approximately at the centre of the site are presented at Appendix ESSD I.

Hydrogeology

- 3.15** The hydrogeology at and in the vicinity of the site is based on groundwater level and groundwater quality monitoring data information provided by Breedon, information provided by the EA and Bedford Borough Council and information presented on the MAGIC website.

Aquifer Characteristics

- 3.16** The sand and gravel river terrace deposits are water bearing and have a moderate to high hydraulic conductivity. The underlying Oxford Clay Formation has a low hydraulic conductivity supporting the groundwater in the overlying sand and gravel deposits. The alluvium and river terrace deposits are designated as a Secondary A Aquifer by the EA. A secondary A aquifer is defined by the EA 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.” The Oxford Clay Formation is designated as unproductive strata by the EA. Unproductive strata is defined by the EA as “rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow”.
- 3.17** Based on information provided by the EA the site is not located within a groundwater Source Protection Zone (SPZ) for a public drinking water supply. The nearest SPZ is a Zone I and II located approximately 7.5km west of the site.

- 3.18** Based on information provided by the EA there are seven licensed groundwater abstractions within approximately 2km of a point located approximately at the centre of the site. A groundwater abstraction licence for the site (AN/033/0012/010) is operated by Breedon to dewater Area 'E' at Willington Quarry. A groundwater abstraction licence 6/33/12*G/0149/R01 for the operator F Southall & Son is located approximately 80m east of the site at its closest point for 'Spray Irrigation – Direct'. Groundwater abstraction licences for 'Spray Irrigation – Direct' for operators Davison & Co (Barford) Ltd and RP Gates & Sons are located approximately 245m north and approximately 540m east, respectively. Two groundwater abstractions located approximately 510m and 585m north west of the site are licensed to Breedon at Willington Quarry under licence 6/33/12*G/0120 for mineral products process water with the groundwater abstracted from the superficial sand and gravel deposits. The locations of the groundwater abstractions within approximately 2km of a point located approximately at the centre of the site are shown on Figure ESSD 9. Information on the groundwater abstractions within approximately 5km of a point located approximately at the centre of the site are provided at Appendix ESSD I.
- 3.19** Based on information provided by Bedford Borough Council there are four private abstractions registered for single domestic use within approximately 2km of a point located approximately at the centre of the site. The two closest private abstractions are located approximately 420m and 425m west of the site. The locations of the private groundwater abstractions within approximately 2km of a point located approximately at the centre of the site are shown on Figure ESSD 9. Details of all the private groundwater abstractions held by Bedford Borough Council are provided at Appendix ESSD I.

Groundwater Flow

- 3.20** Groundwater levels in the superficial sand and gravel deposits of the alluvium and river terrace deposits are monitored in a network of groundwater monitoring boreholes at and in the vicinity of the site. The available groundwater level monitoring data is provided at Appendix ESSD J. The locations of the groundwater monitoring boreholes are shown on Figure ESSD 10
- 3.21** Groundwater level monitoring has been carried out at eleven groundwater monitoring boreholes at and in the vicinity of the site. The groundwater levels at groundwater monitoring boreholes: P11, P22, P41, P45, P48, P59 and P67 have been monitored

since January 2016. Groundwater monitoring borehole 224/16 located adjacent to the southern corner of the site, borehole 231/16 located adjacent to the western corner of the site and boreholes 255/16 and 264/16 located approximately 375m west of the site have been monitored since July 2016. Groundwater monitoring borehole 224/16 was recorded as destroyed in April 2019 and groundwater monitoring borehole 231/16 recorded as having been destroyed in May 2019. Groundwater monitoring boreholes 255/16 and 264/16 have been unable to be monitored since August 2018 due to restricted access.

3.22 Based on the monitoring data and as shown on the hydrograph presented at Appendix ESSD K the groundwater levels vary between 17.0 metres above Ordnance Datum (mAOD) and 19.5mAOD in the majority of the boreholes. However, the majority of the groundwater levels recorded in boreholes 224/16, 255/16 and 264/16 are recorded as being higher between 19.8mAOD and 21.8mAOD generally. The highest groundwater levels are recorded at borehole 264/16 with the maximum groundwater level recorded in borehole 264/16 at 22.44mAOD on 18 April 2018. The lowest groundwater level recorded at the site was in borehole 231/16 at 16.99mAOD on 11 September 2018 and groundwater levels in borehole 231/16 are lower generally. Since May 2019 the groundwater levels have been monitored in groundwater monitoring boreholes P11, P22, P41, P45, P48, P59 and P67. The highest groundwater levels recorded since May 2019 have been recorded in borehole P59, with the maximum groundwater level recorded in borehole P59 at 19.79mAOD on 26 February 2020. The lowest groundwater levels recorded since May 2019 have been recorded in borehole P41, with the lowest groundwater level recorded at 17.29mAOD on 16 September 2019. The magnitude of seasonal variation in groundwater levels is approximately 1m to 1.5m generally.

3.23 The groundwater levels recorded in September 2016, April 2017, July 2018 and January 2020 are shown as groundwater contours on Figure ESSD 13. Based on the groundwater contours the groundwater flow direction at the site is to the north towards the River Great Ouse generally with a component of groundwater flow to the north west. Based on this groundwater flow direction at the site monitoring boreholes 224/16, 255/16 and 264/16 which were monitored previously were located up hydraulic gradient of the site and current monitoring boreholes P22 and P41 are located down hydraulic gradient of the site. A groundwater level based on interpolated groundwater levels recorded on 14 April 2020 is shown on the hydrogeological cross sections on Figure ESSD 11.

Groundwater Quality

- 3.24** Since November 2019 Breedon has been undertaking groundwater quality monitoring at four groundwater monitoring boreholes at the site. Monitoring has been carried out in borehole P11 located within the central area of the site, borehole P22 located adjacent to the centre of the north western site boundary, borehole P41 located adjacent to the northern corner of the site and borehole P45 located adjacent to the eastern corner of the site. Monitoring boreholes P22, P41 and P45 are located outside of the boundary of the site. Graphs showing the variation in groundwater quality at the boreholes at the site are presented at Appendix ESSD K. Graphs are presented for pH, electrical conductivity, total alkalinity, total organic carbon, total oxidised nitrogen, ammoniacal nitrogen, chloride, total sulphur as SO₄ (sulphate), cyanide, arsenic, cadmium, calcium, chromium, copper, iron, lead, mercury, manganese, magnesium, potassium, selenium, sodium, nickel and zinc. On the graphs presented at Appendix ESSD K where the concentrations are recorded below the analytical limit the value plotted on the graph is the detection limit value.
- 3.25** Ammoniacal nitrogen concentrations at the site generally are recorded at or below the detection limit of 0.01mg/l. Although ammoniacal nitrogen concentrations generally are recorded at or below the detection limit of 0.01mg/l, concentrations up to 0.08mg/l have been recorded sporadically. In December 2019 and August 2020 concentrations higher than the detection limit were recorded in several boreholes concurrently. The maximum ammoniacal nitrogen concentration of 0.08mg/l was recorded in borehole P45 on 5 August 2020. The UK Drinking Water Standard is 0.5mg/l for ammonium ion (NH₄⁺) and therefore for the NH₃⁻ ion an equivalent concentration value of 0.39mg/l is applied. None of the concentrations recorded were above this value.
- 3.26** The majority of the chloride concentrations recorded at the boreholes at the site are below 80mg/l. Chloride concentrations are generally higher in boreholes P22 and P41 than the concentrations recorded in boreholes P11 and P45. The chloride concentrations in boreholes P22 and P41 are between 60mg/l and 80mg/l generally and the concentrations in boreholes P11 and P45 are between 40mg/l and 60mg/l generally. On two occasions concentrations of chloride in borehole P41 have been recorded as significantly greater than the typical range. On 19 November 2019 and 7 October 2020 the recorded concentrations of chloride in borehole P41 were 103mg/l and 125mg/l respectively. None of the concentrations of chloride recorded

at the site have exceeded the UK Environmental Quality Standard (EQS) for freshwater of 250mg/l for chloride.

- 3.27** Generally sulphate concentrations are recorded in the range of 90mg/l to 260mg/l. Isolated peaks in sulphate concentrations up to 747 mg/l have been recorded on two occasions in borehole P41 and at 2280mg/l in borehole P45 on one occasion. The UK EQS Freshwater value of 400mg/l for sulphate is not exceeded at the site with the exception of the three isolated peaks recorded in borehole P41 and borehole P45 which are considered potentially anomalous.
- 3.28** The recorded electrical conductivity ranges generally between 750µS/cm and 1250µS/cm. In borehole P41 conductivity outside this range has been reported on three occasions. The highest and lowest conductivity values recorded in borehole P41 are 1900µS/cm and 178µS/cm recorded on 7 October and 4 February 2020 respectively. The pH values at the site range typically between 7.2 and 7.6.
- 3.29** The recorded total organic carbon (TOC) concentrations range typically between 1mg/l at 3mg/l albeit that higher TOC concentrations up to 4.3mg/l have been recorded occasionally in borehole P41. The highest concentrations generally are recorded in borehole P41. The concentrations recorded in boreholes P11 and P45 are generally the most consistent.
- 3.30** The lead concentrations recorded at the site typically are recorded as below the analytical limit of detection of 0.001mg/l. The highest recorded lead concentration is 0.003mg/l in borehole P22 on 19 November 2019.
- 3.31** The nickel concentrations at the site are generally not recorded above 0.008mg/l with the exception of borehole P11 on 14 April 2020 at 0.01mg/l, borehole P45 on 28 April 2020 at 0.027mg/l and borehole P22 on 9 June 2020 at 0.011mg/l. The UK Drinking Water standard for nickel is 0.02mg/l. None of the nickel concentrations are recorded above this value with the exception of a concentration of 0.027mg/l recorded at borehole P45 on 28 April 2020 which is considered to be anomalous of the data set.
- 3.32** Zinc concentrations typically are recorded at concentrations between less than 0.002mg/l and 0.014mg/l although higher concentrations were recorded at borehole P41 on 31 March, 14 April, 9 June and 8 December 2020 at 0.114mg/l, 0.065mg/l, 0.053mg/l and 0.103mg/l respectively, at borehole P45 on 14 April and 8 December

2020 at 0.059mg/l and 0.124mg/l respectively and at borehole P11 on 9 June and 8 December 2020 at 0.032mg/l and 0.414mg/l respectively.

4. Pollution control measures and monitoring

Basal and side slope engineering

- 4.1 The works comprise the deposition of waste on land as a recovery activity in order to restore the land at Willington Lock to agriculture and nature conservation.
- 4.2 The restoration works will be carried out progressively and prior to the placement of the inert waste into each phase dewatering will continue from the mineral extraction operations such that wastes will not be deposited directly into water.
- 4.3 The waste materials imported to the site will comprise a limited range of inert wastes only. Inert waste is defined in the EU Landfill Directive (Council Directive 1999/31/EC) as:

'...waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater'.

- 4.4 It is considered that the waste does not comprise a contaminant source with the potential to have a significant detrimental effect on groundwater quality. The risk to groundwater will be further reduced as an attenuation layer will be constructed in the sidewalls of the site. The excavation of the site will comprise the removal of superficial deposits only. The site is underlain by the Peterborough Member of the Oxford Clay Formation which consists of a mudstone. It is likely that the hydraulic conductivity of the Peterborough Member is less than 1×10^{-7} m/s. As stated in paragraph 3.4 above the borehole logs record the Peterborough Member between a thickness of 0.5m in borehole 224/16 and 0.9m in borehole 231/16 however the full thickness of the clay was not proved. Taking into consideration that the BGS website records the thickness of the Oxford Clay Formation at approximately 25.5m in a borehole located approximately 2.6km from the site, it is considered highly likely that a 1m thick mineral layer with a hydraulic conductivity no greater than 1×10^{-7} m/s is

in-situ at the base of the site. Therefore an attenuation layer will not be constructed in the base of the site.

- 4.5** The side slopes of the excavation will comprise superficial sand and gravel deposits with a hydraulic conductivity greater than 1.0×10^{-7} m/s hence it will be necessary to construct an attenuation layer in the sidewalls. The attenuation layer will be constructed by placing carefully selected low permeability materials of 1×10^{-7} m/s or less against the side slopes of the site to a minimum thickness of 1m perpendicular to the face of the slope. Basal and side slope engineering is described further in the SRA report presented at Appendix I of the application report. Confirmation of the presence of a 1m thick mineral layer in the base of the site with a hydraulic conductivity no greater than 1×10^{-7} m/s and the construction of the sidewall attenuation layer will be the subject of Construction Quality Assurance (CQA) consistent with the conditions of the permit.

Capping

- 4.6** As the materials imported to the site will comprise inert waste materials only it is not necessary to construct a cap or to provide cap protection soils.

Restoration

- 4.7** Pursuant to the conditions of the planning permissions (references CB/17/05654/MW and 17/03351/EIAWM) the site will be restored to agricultural and nature conservation. The approved restoration scheme for the site is presented at Appendix ESSD F.

Water management

- 4.8** Groundwater in the vicinity of the site is recorded in the mineral deposits. As explained above, pumping to facilitate dewatering is being carried out during the operational life of the mineral workings and will be carried out until the level of the filled material is above the natural groundwater level.
- 4.9** As the site will not be capped rainfall incident to the site will continue to either be lost through evapotranspiration, infiltrate to the ground or will run off to the wider surface water management system. It is not necessary to install a drainage layer at the site as inert waste only will be deposited at the site hence the site will present a negligible risk to controlled waters.

Post closure controls (aftercare)

- 4.10** As only inert waste materials will be deposited at the site no leachate or landfill gas management systems will be necessary. Under the Environmental Permitting (England and Wales) Regulations 2016 the Environmental Permit may be surrendered only when it is concluded that the facility no longer presents a risk to the environment. As only inert waste will be deposited at the site an application will be submitted to surrender the Environmental Permit following the collection of monitoring data over only a limited period of time following the completion of the works at the site. The surrender application will be supported by the records of the waste materials accepted at the site and of gas, surface water and groundwater monitoring records which will confirm the inert nature of the wastes deposited.

Gas monitoring

- 4.11** EA guidance on Waste recovery plans and permits⁴ states the following under the heading 'Gas monitoring':-

'Where your risk assessment suggests there is a risk of gas and you plan to deposit waste more than 2 metres below the surrounding ground surface, you must monitor your waste for:

Methane

carbon dioxide

oxygen

You must install the appropriate number of monitoring boreholes per hectare as indicated by your risk assessment. The boreholes must extend to the full depth of the waste.'

⁴ <https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-recovery-plans-and-deposit-for-recovery-permits>

4.12 As shown in the Environmental Risk Assessment presented at Appendix H of the application report based on the inert nature of the waste that will be deposited at the site the potential for landfill gas generation is negligible. On this basis it is considered that gas monitoring at the site is unnecessary.

4.13 Although the site does not comprise an inert waste landfill site it is considered that the guidance presented in LFTGN03⁷ in respect of the scope of a gas risk assessment for the deposit of inert waste on land is the nearest relevant guidance. In paragraph 2.3.1 of LFTGN03 it is stated that:-

'New inert landfills ought not to pose a landfill gas hazard. The emphasis in the risk assessment should, therefore, be placed on the Waste Acceptance Procedures and particularly the waste characterisation and compliance monitoring measures introduced to ensure that only inert waste is deposited at the site. If these measures can be shown to be robust, then the landfill gas source should be demonstrably negligible. Provisions for the monitoring of gas within the waste body will normally be required at inert waste landfills.'

4.14 The site will be the subject of an Environmental Permit restricting the waste types accepted at the site to inert wastes only hence in accordance with paragraph 2.3.1 of LFTGN03 should not pose a gas hazard. Robust waste acceptance procedures (WAP) will be implemented to minimise the risk that non-inert wastes will be accepted at the site. The robust WAP will form part of the externally accredited Environmental Management System (EMS) for the site. Based on the robust waste acceptance procedures it is concluded that the site will comprise a negligible source of gas.

4.15 A programme of confirmatory gas monitoring is presented in Table ESSD 2. The monitoring will be carried out during the operation of the site and for a limited period following the restoration of the site. Proposed in-waste gas monitoring locations in the site are shown on Figure ESSD 7. The gas monitoring facilities will be installed following completion of the restoration of the site. The programme of gas monitoring is presented in Table ESSD 2 and a Gas Action Plan is presented at Table ESSD 3. The post closure monitoring will be agreed with the EA.

⁷ Environment Agency Guidance on the management of landfill gas. LFTGN03. September 2004.

Groundwater monitoring and surface water monitoring

- 4.16** No biodegradable waste materials will be deposited at the site which could result in the generation of leachate. Only inert wastes will be deposited at the site which have a limited potential for leaching of contaminants. Nonetheless a programme of confirmatory groundwater and surface water monitoring is presented in Table ESSD 2. The monitoring will be carried out during the operation of the site and for a limited period following the restoration of the site. The monitoring locations are shown on Figure ESSD 10. Interim groundwater quality compliance and assessment limits are presented in Table HRA 5 of the HRA based on a review of datasets recorded in the monitoring boreholes to date. Interim surface water quality compliance and assessment limits are presented in Table HRA 6 of the HRA and have been calculated based on data from surface water monitoring locations SW2 and SW4 which are located upstream in the River Great Ouse and Gadsey Brook, respectively. Monitoring is carried out at locations SW2 and SW4 in accordance with the Environmental Permit Number EPR/BB3207HL for Dairy Farm Landfill Site. It is proposed that revised surface water compliance and assessment limits will be submitted to the EA within two months of completion of the first year of monitoring the surface water at the site. The post closure monitoring will be agreed with the EA.

5. Site condition report

5.1 The application is necessary to authorise the permanent deposit of waste on land to restore the site in accordance with the obligations in the planning permissions (references CB/17/05654/MW and 17/03351/EIAWM). Whereas the ESSD Guidance does not specify the need for a Site Condition Report, the section of the now updated ESSD guidance⁵ relevant to preparation of a Site Condition Report states:

“A site condition report (SCR) is not necessary for parts of a permitted activity where you permanently deposit waste. An SCR is necessary for areas of the permitted site where you have not deposited any waste (eg site access areas, site offices, weigh bridge, wheel wash etc)”

5.2 As the Environmental Permit boundary is consistent generally with the extent of the area in which waste will be deposited permanently there are no significant areas of the site in which waste will not be deposited hence accordingly it is unnecessary to provide an SCR with the application.

⁵ Conceptual Site Model, Environmental Setting and Site Design Report” Version 1 dated 14 October 2016
BRE/WL/SE/1729/01/ESSD
October 2021

TABLES

Table ESSD 1

Waste types that may be accepted at Willington Lock for deposition as a recovery activity

Waste Code	Description	Note
01 01	Wastes from mineral excavation	
01 01 02	wastes from non-metalliferous excavation	
01 04	wastes from physical and chemical processing of non-metalliferous minerals	
01 04 08	waste gravel and crushed rocks other than those containing dangerous substances	
01 04 09	waste sand and clays	
10 12	wastes from the manufacture of ceramic goods, bricks, tiles and construction projects	
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)	
17 01	Concrete, bricks, tiles and ceramics	
17 01 01	Concrete	
17 01 02	Bricks	
17 01 03	Tiles and ceramics	
17 01 07	Mixtures of concrete, bricks, tiles and ceramics	
17 05	soil (including excavated soil from contaminated sites) stones and dredging spoil	
17 05 04	soil and stones	1
19 12	Wastes from the mechanical treatment of waste (for example, sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 09	minerals (for example sand, stones)	
20 02	Garden and park wastes (including cemetery waste)	
20 02 02	soil and stones	1

Notes

1 Soil and stones from contaminated sites will not be accepted.

Table ESSD 2

Programme of environmental monitoring during the operational phase of the site

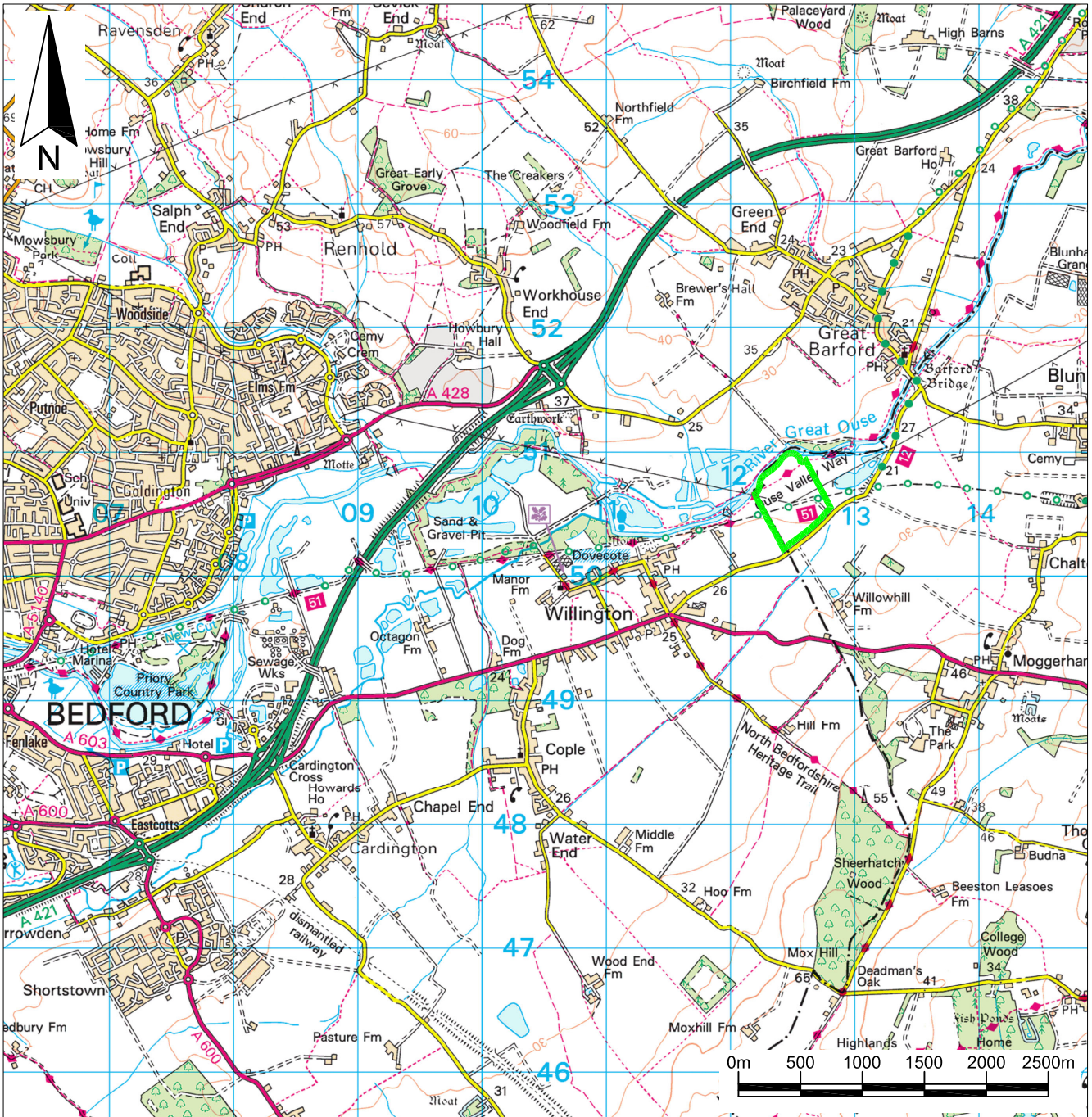
	Location	Frequency	Determinands
Groundwater	Groundwater monitoring locations boreholes P22, P41 and P11 as shown on Figure ESSD 10. Monitoring to be carried out at borehole P11 as an interim measure until a new borehole is drilled to replace up hydraulic gradient borehole 224/16 which has been destroyed.	Quarterly	Groundwater level. Ammoniacal nitrogen, chloride, pH, electrical conductivity, total organic carbon, sulphate, lead, nickel and zinc.
Surface water	Surface water monitoring points SWA and SWB as shown on Figure ESSD 10.	Monthly for one year (until 12 data sets have been collected) then quarterly.	Ammoniacal nitrogen, chloride, pH, electrical conductivity, total organic carbon, sulphate, lead, nickel and zinc.
Gas (gas monitoring standpipes internal to the waste)	2 locations per cell in areas of the site in which the depth of waste will exceed 4m ¹	Six monthly	Methane, carbon dioxide and oxygen concentrations and the differential pressure ²

1. The final locations of in-waste gas monitoring facilities will be determined based on the basal levels of the landfill, the levels of the restored ground surface and the rest groundwater level. Proposed locations for in waste gas monitoring are shown on Figure ESSD 7 in the ESSD report. The number and locations of in-waste gas monitoring facilities will be agreed with the Environment Agency with reference to the latest guidance prior to installation and will be installed when the site is restored.
2. Meteorological and ground conditions will be recorded during each monitoring visit.

Table ESSD 3
Gas Action Plan

Parameter	Action limit ¹ (% by volume)
Methane	1% volume/volume (v/v)
Carbon dioxide	1.5% v/v
Frequency	Six monthly
Assessment test Exceedance of the action limit on any one occasion.	
Contingency action	Response time
Repeat the monitoring at and in the vicinity of the affected location	Before the end of the working day
If the exceedance is sustained repeat the monitoring at and in the vicinity of the affected location	5 working days
Advise the Environment Agency	Within 48 hours of the repeat monitoring
If the exceedance is sustained assess the risks associated with the presence of the elevated gas concentrations. As the monitoring relates to in-waste gas monitoring wells, review the results of differential pressure and flow monitoring carried out at the affected well which will be used to assess whether gas is being generated in significant volumes or whether elevated concentrations only are present. In respect of the gas probing technique extend the probing in the area around the affected location to determine whether the presence of elevated gas concentrations extends beyond the original affected probe location.	Within one week
Advise the Environment Agency	Within two working days of the assessment
If the risks are acceptable re-evaluate the assessment test	12 months
If the risks are unacceptable implement corrective measures and or additional monitoring which may include the installation of additional in-waste gas monitoring wells.	Agree timetable with the Environment Agency based on the results of the revised risk assessment
Notes: ¹ The action limits are based on the trigger levels specified in Environment Agency LFTGN03 Guidance on the management of landfill gas the action limits	

FIGURES



Key / Notes



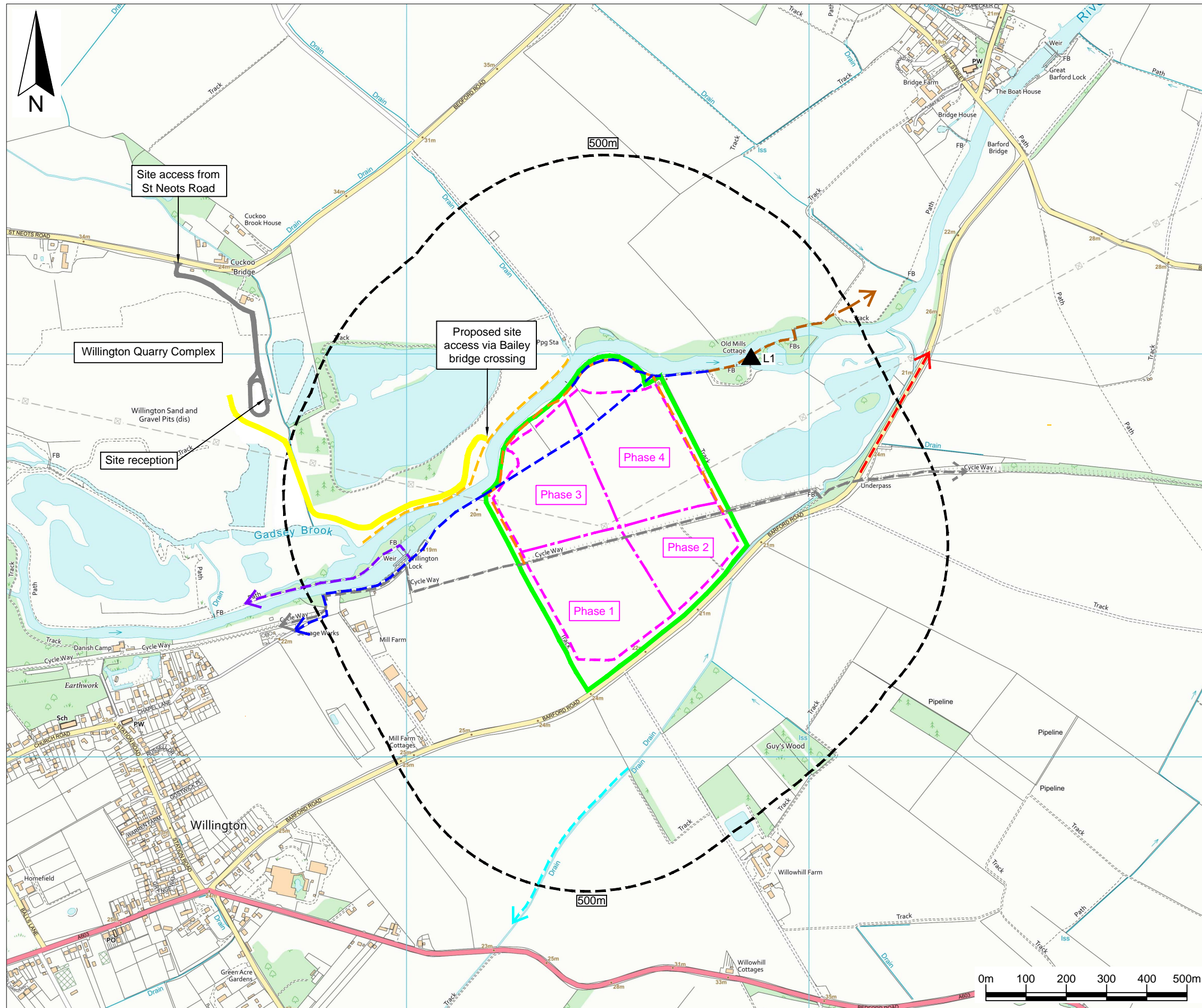
Approximate boundary of the site the subject of the Environmental Permit application

	Final	HM	SE	GT	23/04/21
Rev	Status	Drn	App	Chk	Date
Site WILLINGTON LOCK					
Client 					
Title The site location					
Figure ESSD 1				Scale 1:50,000@A4	
Drawing Ref BRE/WL/03-20/21652					



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Warwickshire, CV9 2LE.
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Key / Notes

- Approximate boundary of the site the subject of the Environmental Permit application
- Limit of extraction
- 500m offset from the approximate boundary of the site the subject of the Environmental Permit application
- Phase boundary
- Overhead power cable
- Concrete/tarmacadam primary site access road
- Internal haul roads
- Approximate location of the listed buildings within 500m of the site**
- Old Mills Cottage
- Approximate routes of bridleways and footpaths within 500m of the site**
- Bridleway 8
- Bridleway 23
- Footpath 2
- Footpath 3
- Footpath 4
- National Cycle Route 51 (also referred to as the Bedford to Sandy Country Way)
- National Cycle Route 12
- Temporary Public Right of Way diversions during mineral extraction and restoration operations**
- Footpath 3/National Cycle Route 51 diversion

	Final	HM	TJC	GT	23/04/21
Rev	Status	Drn	App	Chk	Date

Site: WILLINGTON LOCK



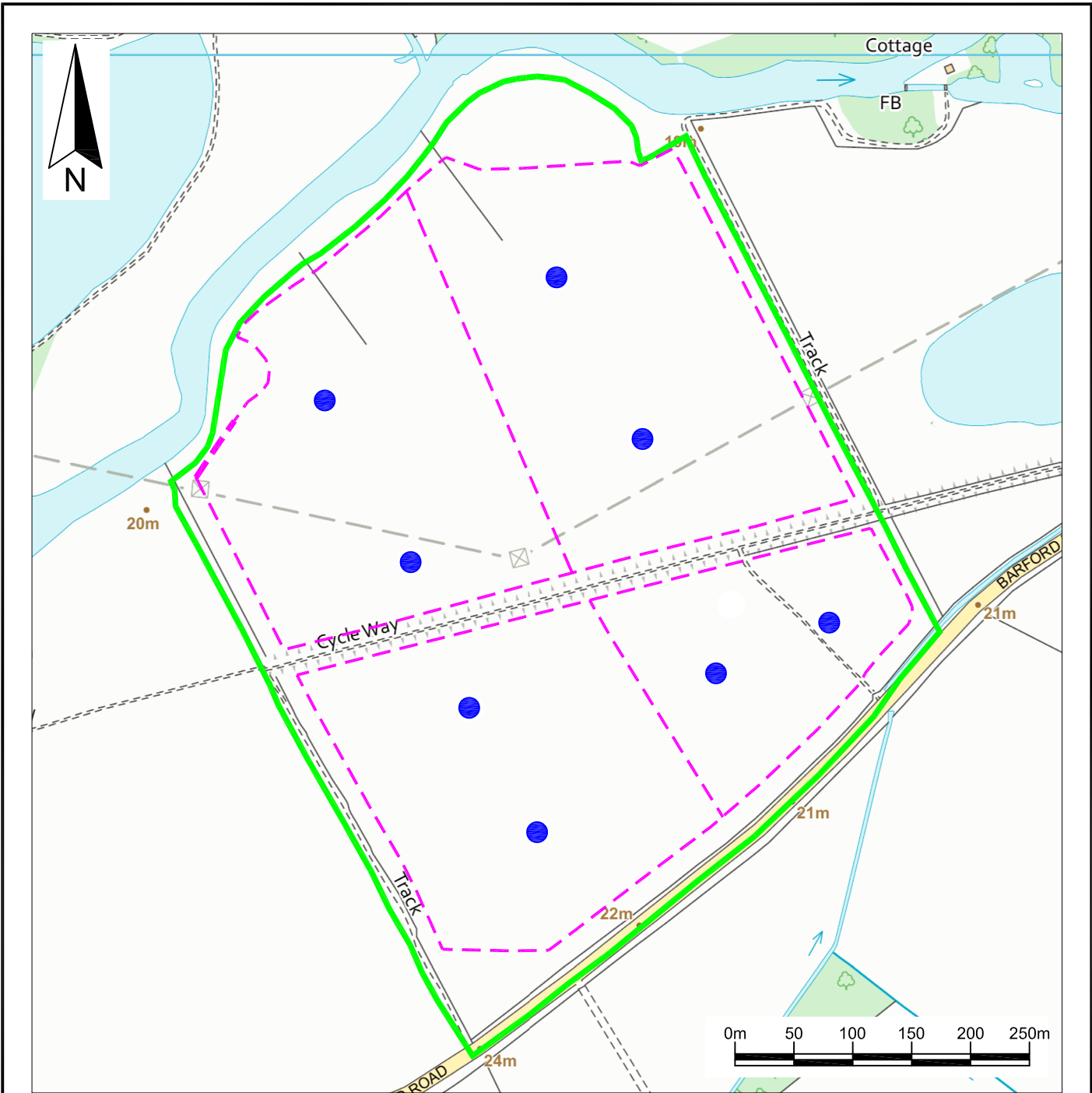
Title: The site and surrounding area

Figure ESSD 2 | Scale: 1:10,000@A3




Drawing Ref: BRE/WL/10-19/21447


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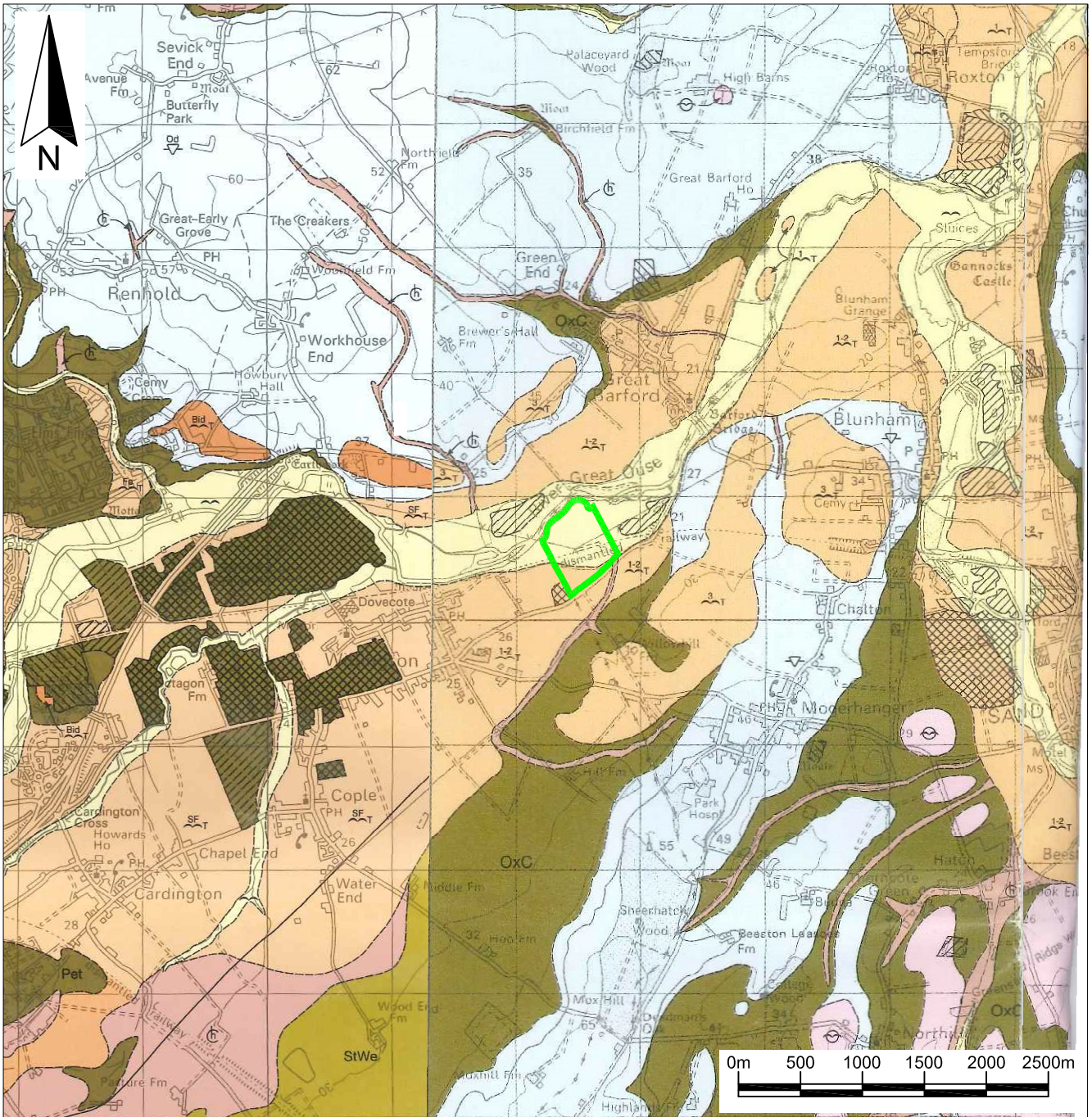
MJCA Baddesley Colliery Offices,
Main Road, Baxterley, Atherstone,
Warwickshire, CV9 2LE.
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Technical advisers on environmental issues Fax: 01827 718507



Key / Notes

-  Approximate boundary of the site the subject of the Environmental Permit application
-  Approximate phase boundaries
-  Proposed in-waste gas monitoring location

	Final	HM	TJC	GT	23/04/21
Rev	Status	Drn	App	Chk	Date
Site WILLINGTON QUARRY					
Client 					
Title The gas monitoring locations					
Figure ESSD 7				Scale 1:5,000@A4	
Drawing Ref BRE/WL/03-20/21656					



Key / Notes



Approximate boundary of the site the subject of the Environmental Permit application

Artificially Modified Ground



Worked ground



Infilled ground



Landscaped ground



Disturbed ground

Natural Superficial Deposits



Head



Alluvium



Glaciofluvial Deposits



Till



Felmersham Member



Stoke Goldington Member and Felmersham Member



Biddenham Member/River Terrace Deposits



Biddenham Member/River Terrace Deposits

Bedrock Geology



Stewartby Member



Peterborough Member



Oxford Clay Formation

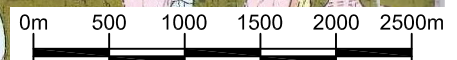
Boundaries



Geological boundary drift

Ouse Valley Formation

Oxford Clay Formation



Rev	Final	HM	RLW	GT	23/04/21
Status	Drn	App	Chk	Date	

Site: WILLINGTON LOCK

Client:

Title: Regional geology of the site and surrounding area

Figure ESSD 8 Scale: 1:50,000@A4

Drawing Ref: BRE/WL/11-19/21500



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Key / Notes



Approximate boundary of the site the subject of the Environmental Permit application



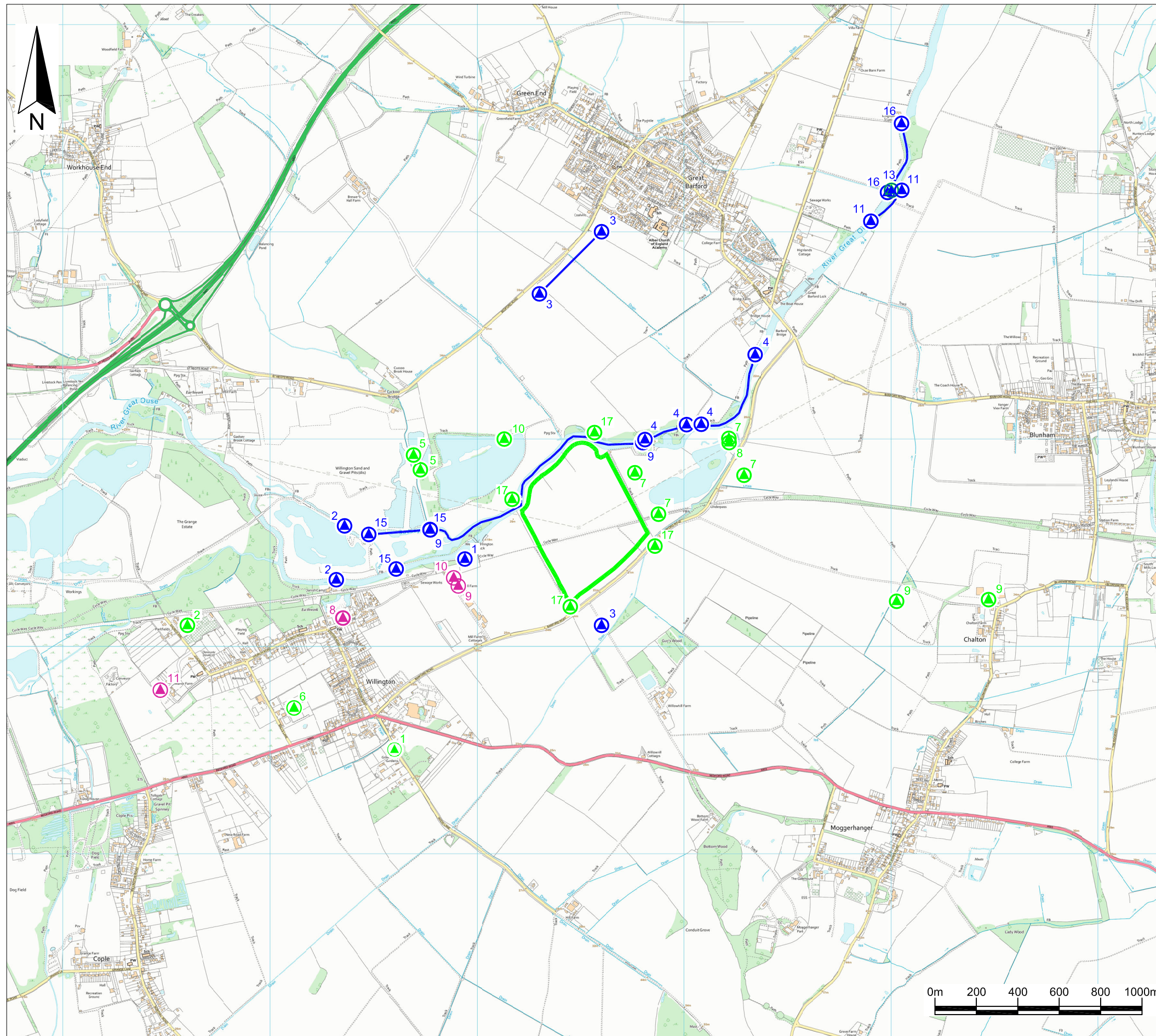
Location of a groundwater abstraction



Location of a surface water abstraction



Location of a private groundwater abstraction



Rev	Final	HM	LBA	GT	23/04/21
	Status	Drn	App	Chk	Date

Site
WILLINGTON LOCK

Client

Title
Plan showing the approximate locations of groundwater and surface water abstractions within 2km of the site

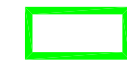
Figure ESSD 9 Scale
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Drawing Ref
BRE/WL/11-19/21507

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Key / Notes



Approximate boundary of the site the subject of the Environmental Permit application



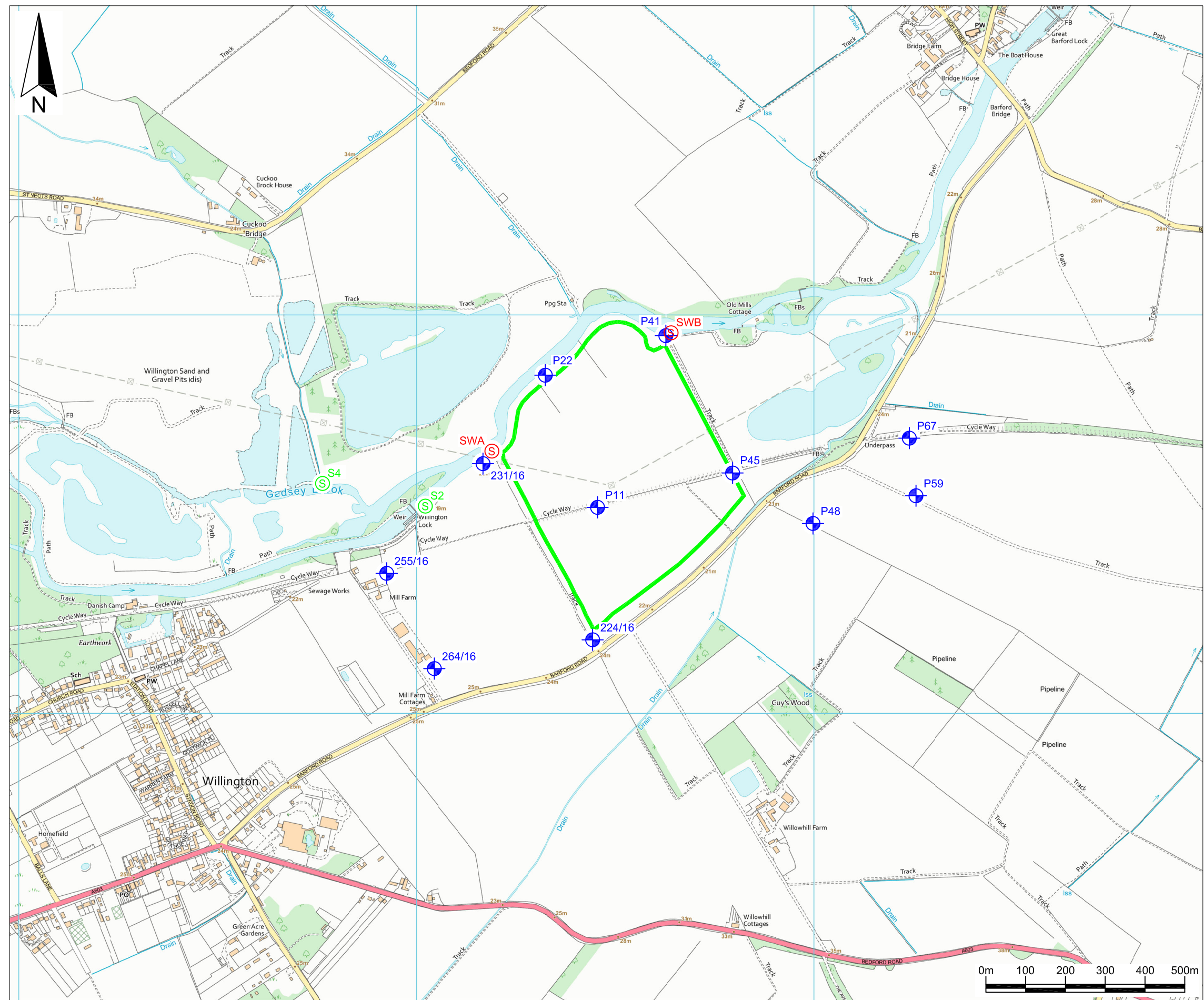
P22 Approximate location of a groundwater monitoring borehole



SWA Proposed surface water monitoring point



S2 Approximate location of a surface water monitoring point monitored in accordance with Environmental Permit Number EPR/BB3207HL for the Dairy Farm Landfill Site



Rev	Final	HM	RLW	GT	23/04/21
	Status	Drn	App	Chk	Date

Site
WILLINGTON LOCK

Client

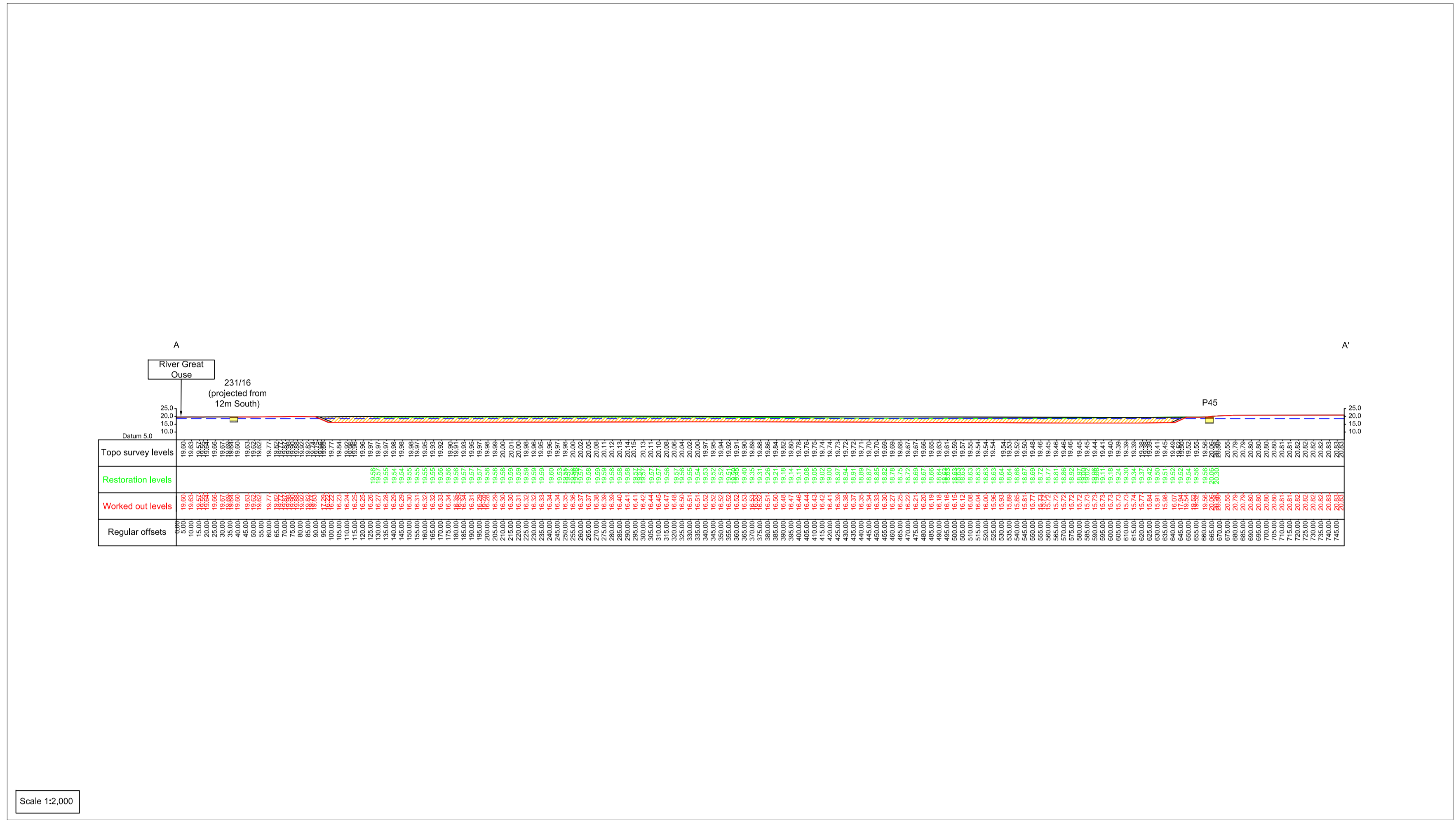
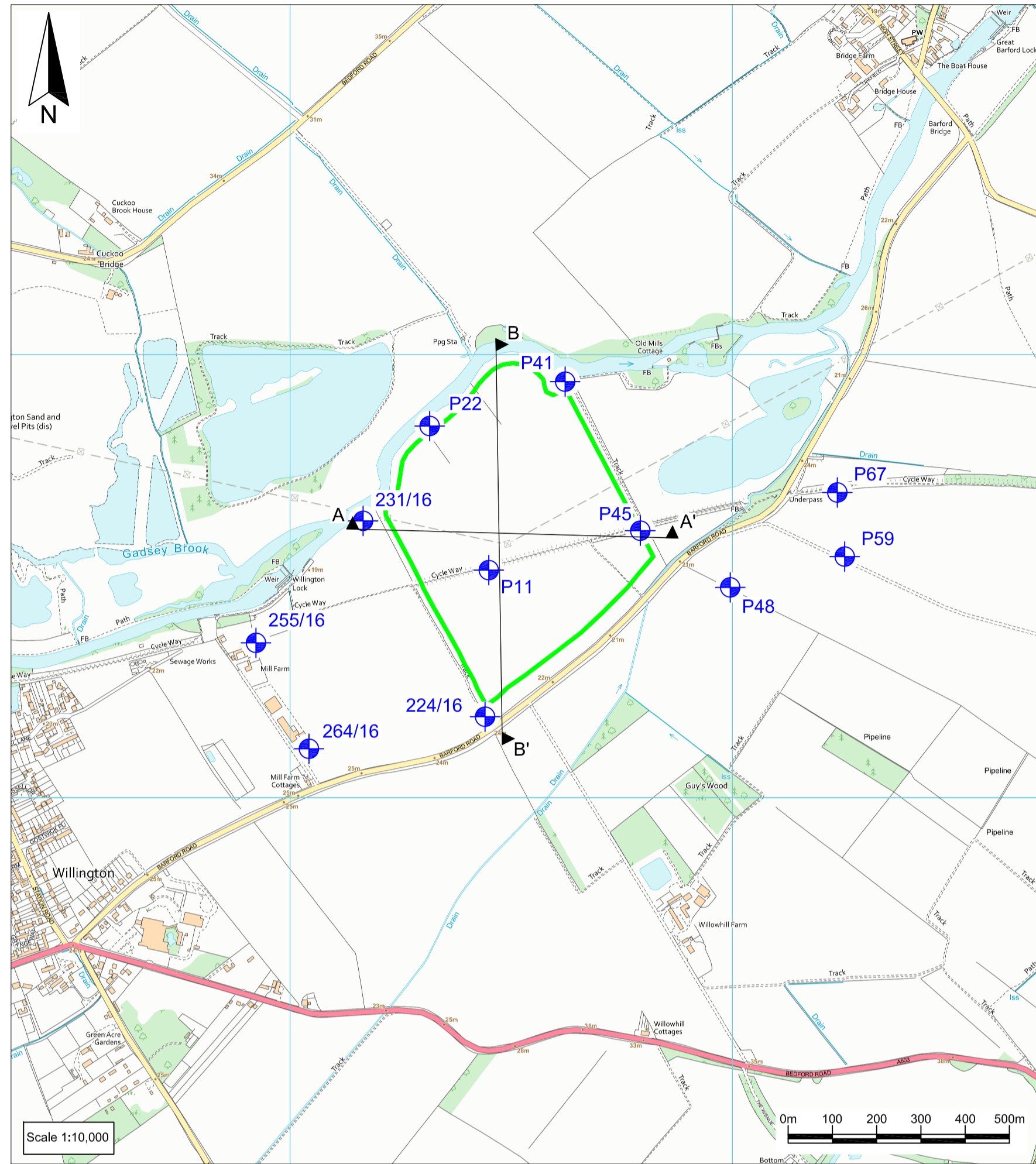
Title
Plan showing the environmental monitoring locations

Figure ESSD 10 Scale
1:10,000@A3

Drawing Ref
BRE/WL/11-19/21499

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Key / Notes

- Approximate boundary of the site the subject of the Environmental Permit application
- Location of a groundwater monitoring borehole
- Location of cross section
- Inert waste (or on site material)
- Indicative proposed artificial attenuation layer
- Alluvium
- River Terrace Deposits
- Oxford Clay Formation
- Ground surface
- Approximate restoration levels
- Approximate worked out profile
- Interpolated groundwater levels recorded on 14 April 2020

Rev	Status	By	App	Chk	Date
	Final	HM	RLW	GT	23/04/21

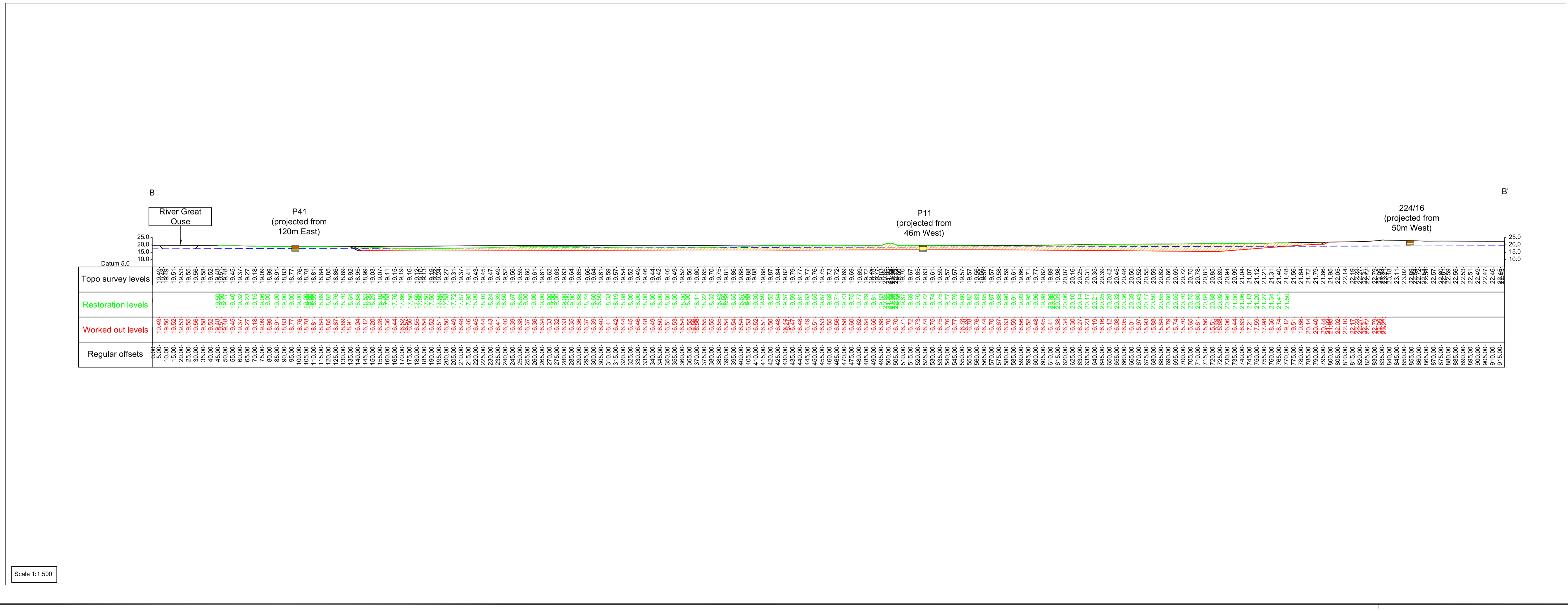
Client: WILLINGTON LOCK

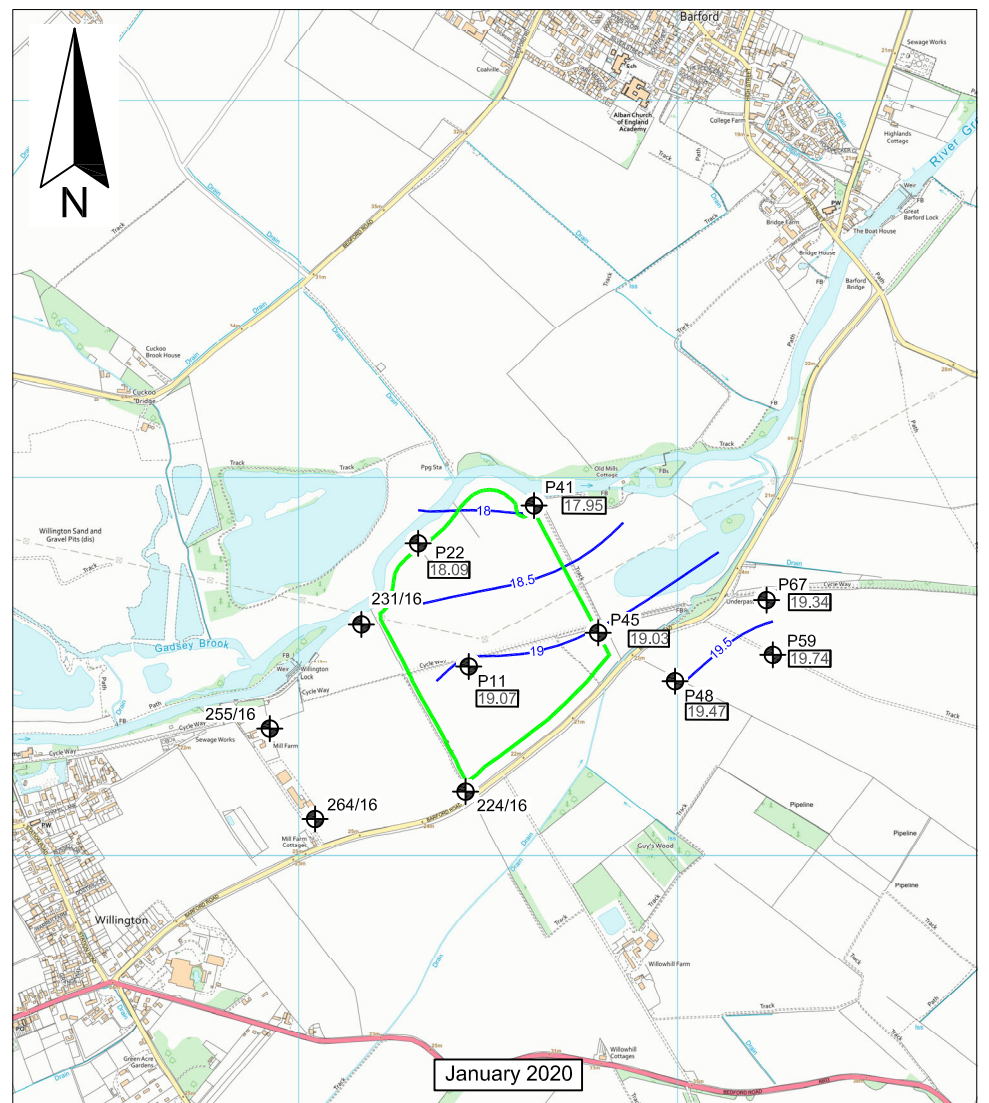
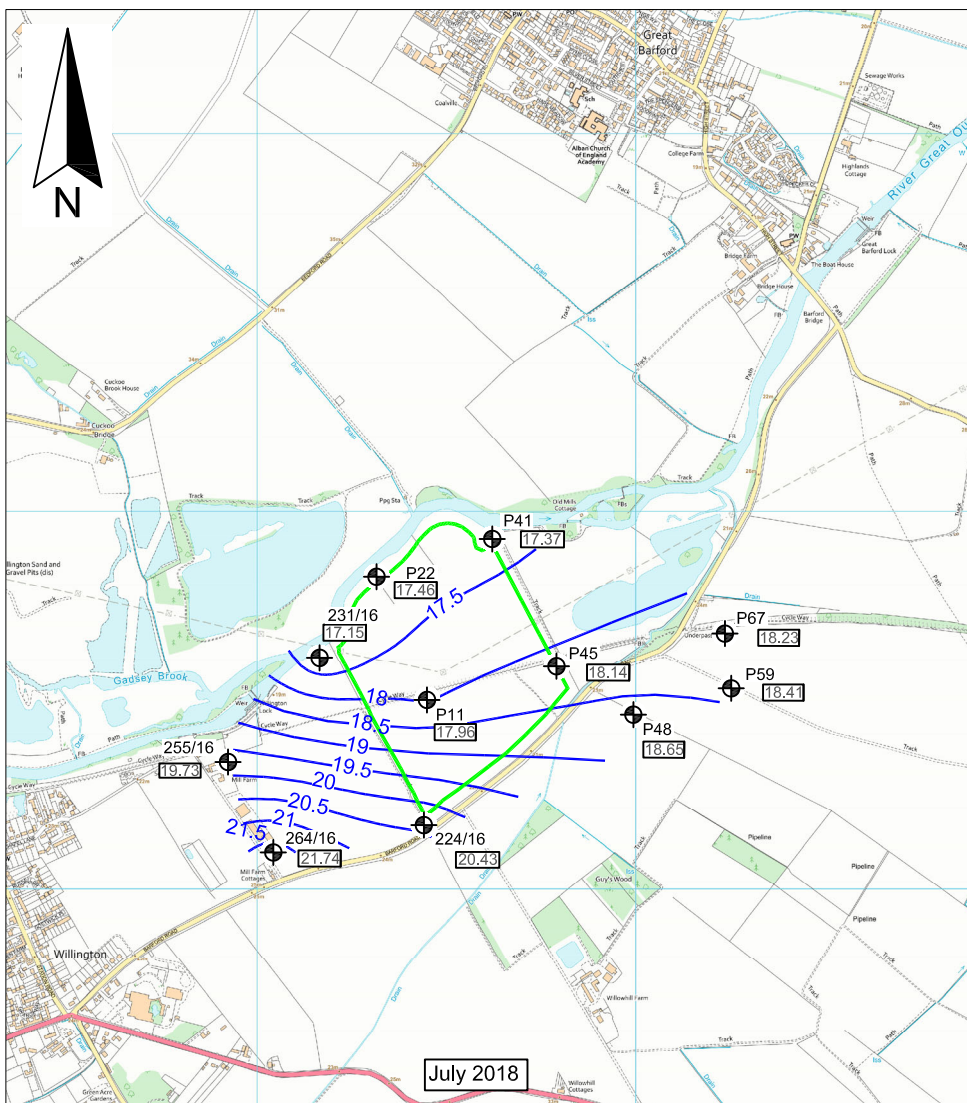
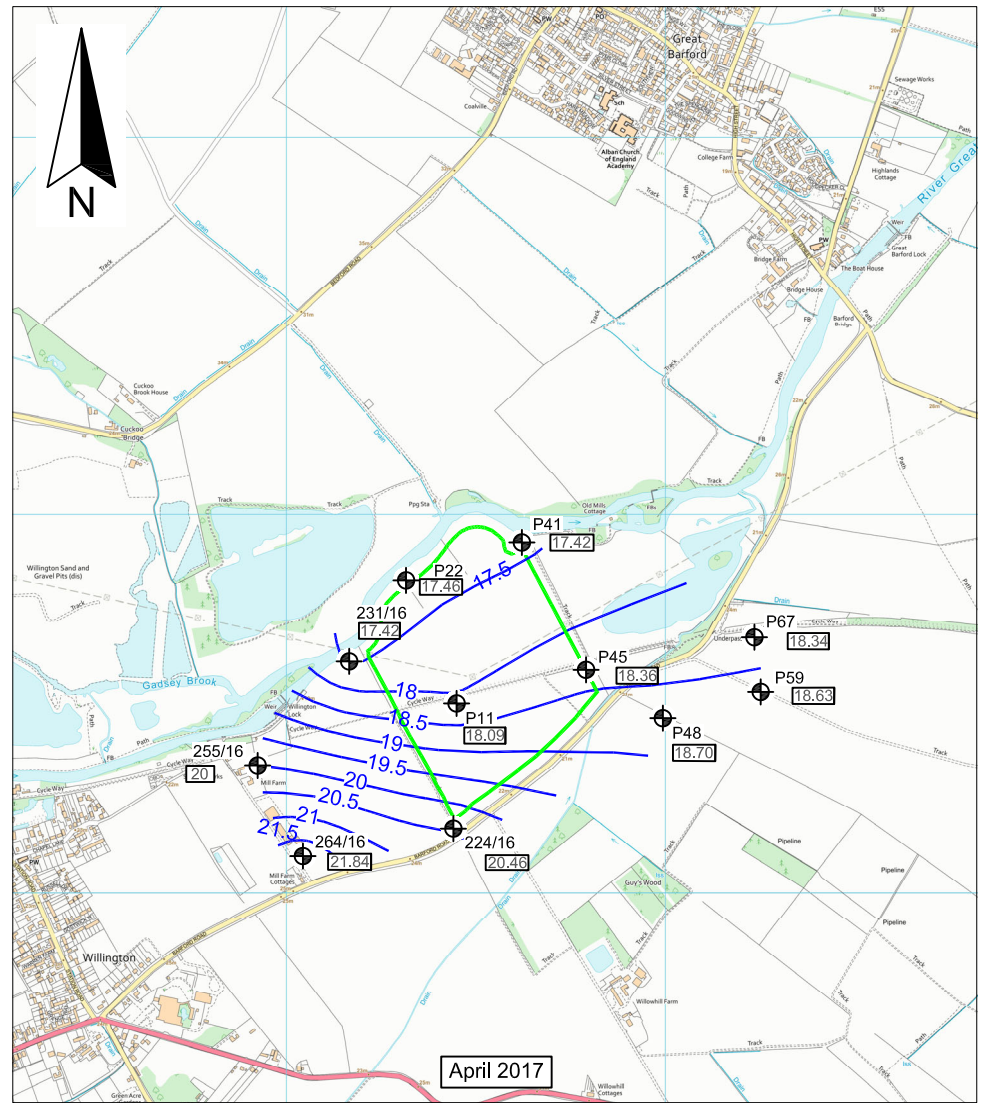
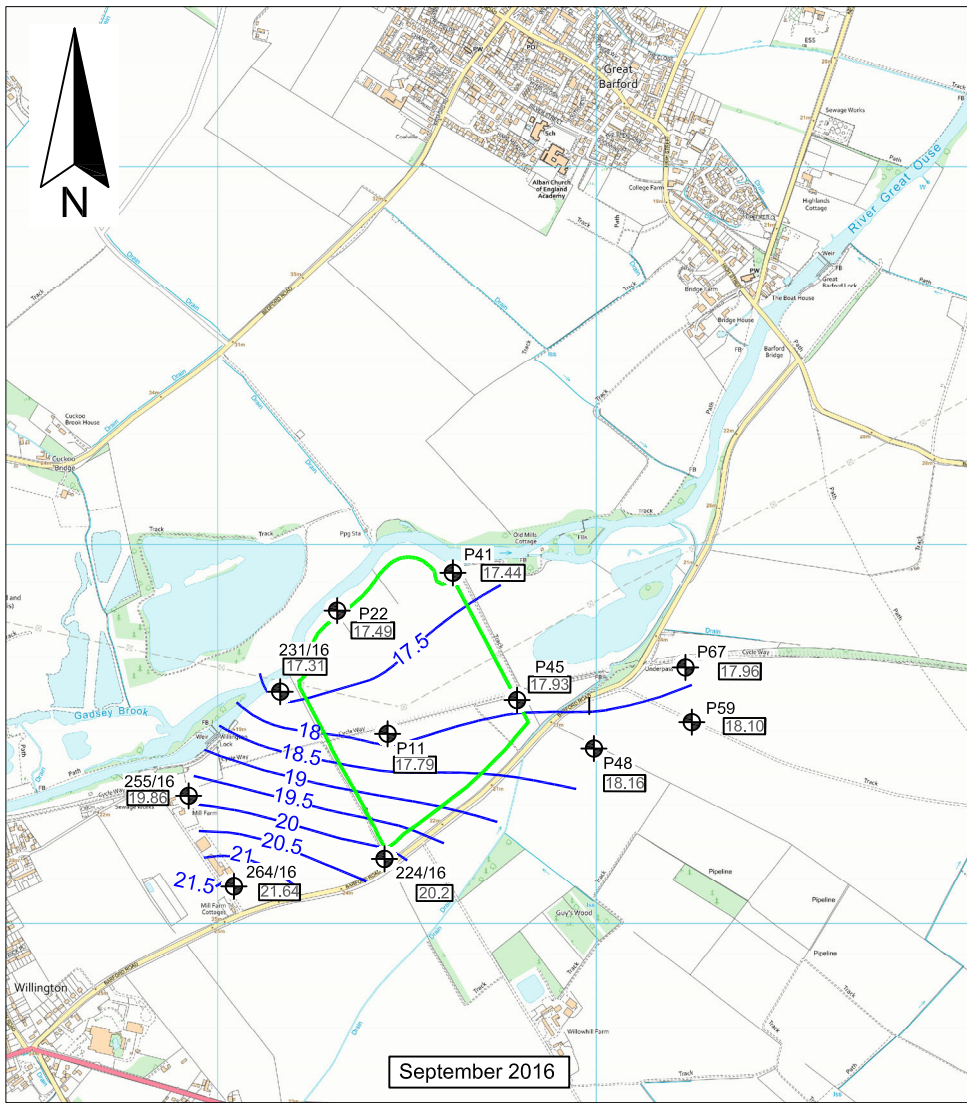
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Figure ESSD 11





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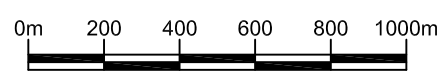




Key / Notes

-  Approximate boundary of the site the subject of the Environmental Permit application
-  P22 Approximate location of a groundwater monitoring borehole
-  28.2 Indicative groundwater level contours in m above Ordnance Datum
-  28.2 Groundwater level in m above Ordnance Datum. Only monitoring locations for which data are available are shown on each panel

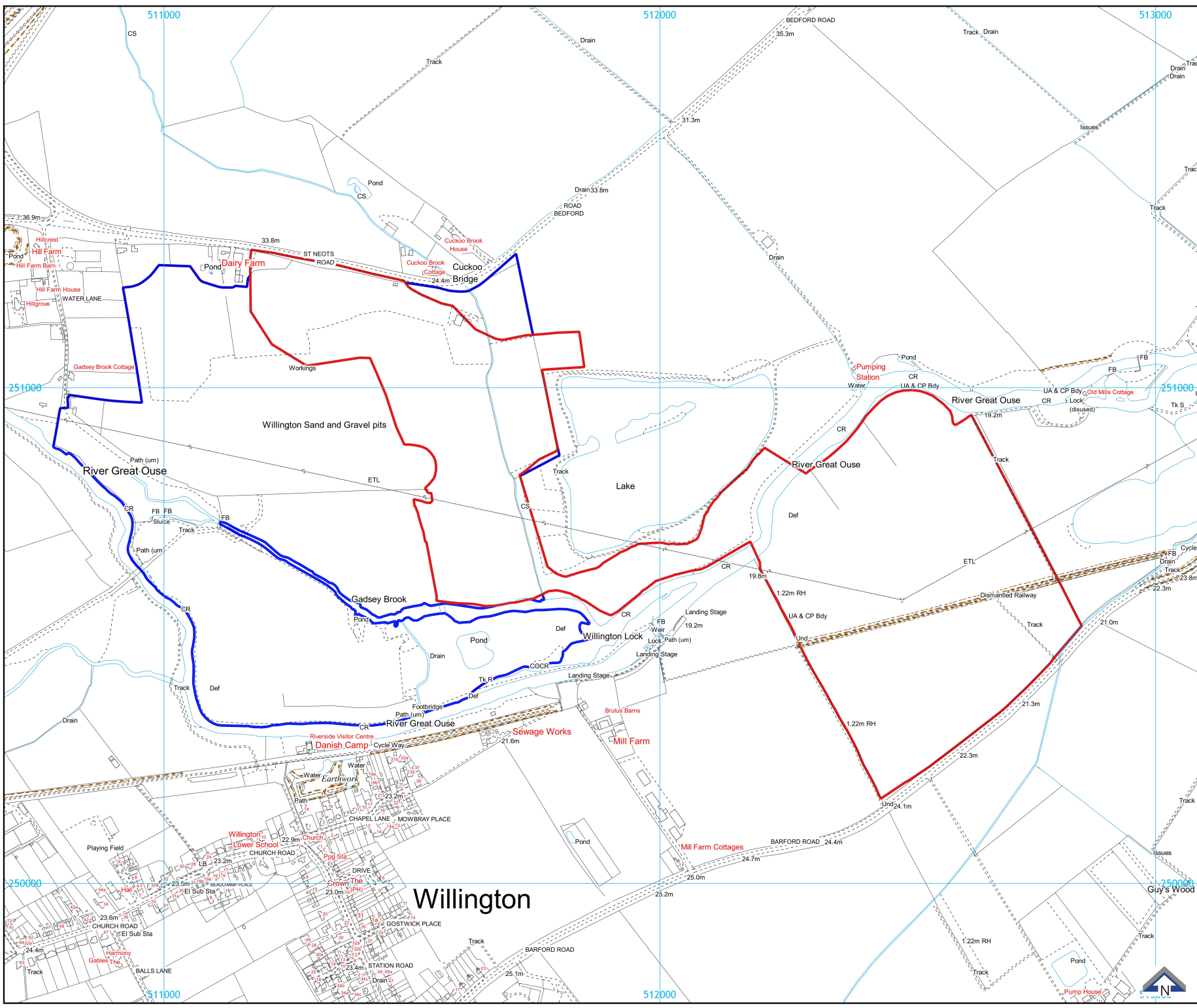
Rev	Final	HMRLW	GT	23/04/21
Rev	Status	Drn	App	Chk
Site WILLINGTON LOCK				
Client 				
Title Indicative contours of the variation in groundwater levels across the application area between September 2016 and January 2020				
Figure ESSD 13			Scale 1:20,000@A3	
Drawing Ref BRE/WL/02-20/21621				
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APPENDICES

APPENDIX ESSD A

**DRAWING REFERENCE 17-03-10 A LOCATION PLAN SHOWING THE BOUNDARY OF
PLANNING PERMISSIONS REFERENCES CB/17/05654/MW AND 17/03351/EIAWM**



- Legend**
- Planning application boundary
 - Other land under company control

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Willington Lock

Location Plan

Drawn by: GRM
 Date: 20/11/17
 Scale @ A4: 1:10,000

Drawing No: 17-03-10
 Revision: C



APPENDIX ESSD B

PLANNING PERMISSION REFERENCE CB/17/05654/MW

Development Management

Central Bedfordshire Council

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Bedfordshire SG17 5TQ
www.centralbedfordshire.gov.uk



Mr G Jenkins
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Beignon Close
Ocean Way
Cardiff
CF24 5PB

Contact David Peachey
Direct Dial 0300 300 6211
Email planning@centralbedfordshire.gov.uk
Your Ref 407.06559.00008
Date 21 May 2019

Town and Country Planning Act 1990
Town and Country Planning (Development Management Procedure) (England)
Order 2015
Town and Country Planning (Environmental Impact Assessment) Regulations 2017

DECISION NOTICE

Application Number: CB/17/05654/MW
Application Site: Land either side of Willington Lock, St Neots Road
Proposed Development: Extraction of sand and gravel; installation of mineral processing plant; construction of a quarry access onto St Neots Road; installation of a temporary access road crossing the River Ouse; restoration of extraction area partly using imported inert material.

Statement required by the Town and Country Planning (Development Management Procedure) (England) Order 2015 - Part 6, Article 35 -

In determining this application the Local Planning Authority (LPA) has worked positively and proactively with the applicant by entering into pre-application discussions and encouraging community engagement which the applicant acceded to by presenting its proposals to local residents, parish councils and stakeholders at a public exhibition. The proposals and the content of the Environmental Statement have been assessed against the relevant development plan policies, National Planning Policy Framework and taking account of the LPA's Scoping Opinion and National Planning Practice Guidance. The LPA has identified all material considerations and has sought to resolve solutions to a number of technical issues raised through the consultation exercise. Additional information has been submitted under Regulation 25 of the Town and Country Planning (Environmental Impact assessment) Regulations 2017. A number of improvements to the scheme have been agreed. The applicant has been given advance sight of the draft planning conditions and the LPA has further engaged in the preparation of a draft legal agreement. This approach accords with the

requirements set out in paragraph 38 of the Revised National Planning Policy Framework (2018).

Environmental Impact Assessment -

In accordance with Regulations 26 and 29 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 the Authority hereby states that before granting planning permission it has first reached a reasoned conclusion on the significant effects of the proposed development on the environment taking into account the environmental information as defined by Regulation 2 of the same Regulations.

It is considered that the applicant has adequately assessed the potential impacts of the development in terms of ecology, landscape and visual effects, agriculture and soil resources, hydrology and hydrogeology, noise, dust, air quality, traffic and cultural heritage, all of which are topics covered in the Environmental Statement (ES). Mitigation measures have been incorporated into the design of the scheme together with more specific and detailed mitigation measures drawn from recommendations in the ES.

In terms of ecology the Authority concludes that through appropriate mitigation measures, secured by planning conditions, impacts on species and habitats can be reduced to acceptable levels taking into account the national importance attached to maintaining a steady supply of aggregate minerals. This decision is subject to a species monitoring and mitigation strategy in respect of otters, reptiles, badgers and breeding birds.

The Authority concludes that the overall landscape effects of the development are not significant, although there would be a temporary adverse impact due to landscape change whilst the site is in operation. The mature willows and woodland defining the edge of the River Ouse and Gadsey Brook would be preserved barring the loss of up to four trees to accommodate the bailey bridge crossing. A 'micro siting' approach has been agreed for the bailey bridge and connecting haul road to ensure a high standard of protection for valuable riverside trees and tree belts.

The phased working and restoration programme has been designed to ensure that all Best and Most Versatile (BMV) grade 3a soils are handled separately and are available in the correct sequence for use in the areas to be restored to agriculture. This decision is subject to a requirement for a detailed audit of the stripping areas in advance of each extraction phase and a regular check of soil volumes for restoration purposes.

In terms of water resources, the decision requires the implementation of a hydrometric monitoring scheme (HMS) which will allow the Authority to assess the operational effects of the development against the predicted effects in the ES.

The proposed noise mitigation measures, observing industry best practice and adherence to operating hours, indicate that the development can be carried out without causing unacceptable noise impacts. A c.2.5 metre-high screen bund is required along the initial section of internal access road to adequately reduce noise levels from HGVs at Cuckoo Brook House. This decision is subject to the implementation of a noise monitoring programme to demonstrate compliance with noise standards derived from the Minerals Planning Practice Guidance (PPG). This

programme will include provision for additional mitigation measures to be introduced in the event that any exceedances are confirmed.

The dust impact risk at all residential receptors is judged to be negligible. At ecological receptors, the dust risk is determined to be low. A number of specific dust mitigation measures have been incorporated into site layout and phasing and site operations will need to be undertaken in line with standard industry best practice (e.g. use of water suppression in working areas). This decision is subject to a requirement for a detailed dust management plan, incorporating a monitoring regime with trigger limits for investigation and action. This will allow the Authority to assess the operational dust impacts against the predicted effects in the ES.

In order to ensure that operational traffic would not have an unacceptable impact on the highway network, this decision includes a limit on morning peak HGV movements and an overall daily limit on HGV numbers along with a ban on right turning movements at the site exit through a Traffic Regulation Order. The site will be equipped with a CCTV system to enable effective monitoring of the entrance area.

The Scheduled Monuments on the site will be physically protected by retained low soil bunds and a condition requiring an updated mitigation strategy for the monuments is imposed. This approach has been endorsed by Historic England.

The Council as the Local Planning Authority hereby gives notice of its decision to **GRANT PERMISSION** for the development specified above and shown on the submitted plans, subject to the following conditions:

- 1 Planning permission shall extend to the site area delineated by a solid red line on the attached Plan no. CB/17/05654/MW-1. The development hereby permitted shall be carried out in accordance with the particulars of the development, drawings and specifications contained within the planning application. The approved drawings and particulars comprise (except where modified by other conditions of this permission):

Documents:

- Application form dated 23rd November 2017;
- Planning Supporting Statement (dated November 2017);
- SLR letter dated 19th April 2018 (ref. 407.06559.00008);
- SLR e-mail and attachment dated 18th June 2018;
- SLR e-mail and attachment dated 21st June 2018; and
- the applicant's e-mail dated 5th July 2018.

Drawings (assuming gas pipeline removed):

- Drawing no. 17-03-00 B (Topographical Survey);
- Drawing no. 17-03-01 C (Site establishment);
- Drawing no. 17-03-02 B (End of Phase 1);
- Drawing no. 17-03-03 B (End of Phase 2);
- Drawing no. 17-03-04 B (End of Phase 3);
- Drawing no. 17-03-05 B (End of Phase 4);
- Drawing no. 17-03-06 B (End of Phase 5 Restoration);
- Drawing no. 17-03-07 B (End of Phase 6 Restoration);
- Drawing no. 17-03-08 B (Final landform);
- Drawing no. 17-03-09 (Borehole Location Plan)
- Drawing no. 17-03-10 Rev C (Location Plan);
- Drawing no. 17-03-12 (Processing plant layout);
- Drawing no. 17178-01 (Proposed Site Layout – concrete plant);

- Drawing ref. 170104 (Proposed New Site Access to St Neots Road Illustrative Layout);
- Drawing no. EC03_4532_AIA_Bridge_V01 (Bridge Crossing Plan);
- Drawing no. W16_LAN_020 Rev. A (Restoration Strategy);
- Drawing no. W16_LAN_021 Rev A (Restoration Sections Option C); and
- Drawing no. W16_LAN_025 (Proposed Bailey Bridge Crossing);

Drawings (assuming gas pipeline retained):

- Drawing no. W16_LAN_022 Rev A (Restoration Strategy pipeline retained);
- Drawing no. W16_LAN_023 Rev A (Restoration Sections pipeline retained); and
- Drawing no. W16_LAN_024 Rev A (Existing Situation); and
- Drawing no. 18-01-01 (Topographical Survey Revised Phases).

Any material change to the plans hereby approved will require a formal planning application to vary this condition and any non-material change to the plans will require the submission of details and the agreement in writing by the Local Planning Authority prior to any non-material change being made.

REASON: To ensure the development is carried out in an acceptable manner, and to provide certainty on what is being authorised by this permission in accordance with advice contained in National Planning Practice Guidance (Use of Planning Conditions, paragraph 022).

- 2 The development hereby permitted shall be begun not later than the expiration of 3 years from the date of this permission. Written notification of the date of commencement shall be sent to the Local Planning Authority within 7 days of such commencement.

REASON: To comply with section 91 of the Town and County Planning Act 1990 as amended by section 51 of the Planning and Compulsory Act 2004 and to enable the Local Planning Authority to monitor other conditions of this permission.

- 3 The mineral extraction hereby permitted shall cease within 4 years of commencement as notified to the Local Planning Authority pursuant to condition 2, and inert landfilling shall cease 30 months after the cessation of mineral extraction, the date of which shall be notified in writing to the Local Planning Authority. Final restoration and landscaping works, but excluding aftercare, shall be completed within 1 year of the date of cessation of inert landfilling

REASON: To ensure that all operations are completed within an acceptable timescale and to prevent prolonged disturbance to the local environment in accordance with saved Policies GE18 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 4 No soil stripping shall take place on the site unless and until an archaeological strategy for mitigation has been submitted to and approved in writing by the Local Planning Authority. The archaeological mitigation strategy shall include the following components:

- i) a method statement for the investigation of all archaeological remains present that will be destroyed by the development and/or a method statement for the preservation “in situ” of archaeological remains;
- ii) a strategy for community engagement;
- iii) an outline strategy for post-excavation assessment, analysis and publication; and
- iv) a timetable for each stage of the archaeological works.

Development shall thereafter only be implemented in accordance with the approved archaeological scheme which shall be implemented in full.

REASON: a.) In accordance with paragraph 199 of the NPPF; to record and advance the understanding of the significance of all heritage assets with archaeological interest which will be unavoidably destroyed as a consequence of the development and to make the record of this work publicly available. b.) In accordance with saved Policy GE14 of the Bedfordshire Minerals and Waste Local Plan 2005; to ensure that provision is made for an appropriate level of investigation and recording in advance of the destruction of those archaeological remains which do not merit permanent preservation and to ensure the long-term management of those archaeological remains which are preserved in situ.

- 5 Written notification of the date of completion of the archaeological fieldwork shall be sent to the Local Planning Authority within 7 days of such completion. No soil stripping shall take place on the site unless and until the archaeological Post Excavation Assessment Report and Updated Project Design has been submitted to and approved in writing by the Local Planning Authority. The Post Excavation Assessment Report and Updated Project Design shall be submitted within 6 months of the notified date of completion of the archaeological fieldwork. The archaeological Post Excavation Assessment and Updated Project Design shall follow the parameters in the approved outline strategy for post-excavation assessment, analysis and publication.

REASON: To ensure that the record of archaeological work is made publicly available in accordance with paragraph 199 of the NPPF.

- 6 The archaeological post excavation analysis (as specified in the approved Updated Project Design); the preparation of the site archive for deposition with a store approved by the Local Planning Authority; the completion of the archive report and the submission of the publication report shall be undertaken within 2 years of the date of written approval of the Updated Project Design.

REASON: To ensure that the record of archaeological work and any associated archive are made publicly available in accordance with paragraph 199 of the NPPF.

- 7 Access and egress for site traffic shall only be by way of the approved junction arrangement shown on drawing ref. 170104 (Proposed New Site Access to St Neots Road).

REASON: In order to minimise danger, obstruction and inconvenience to highway in accordance with saved Policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 8 Prior to the commencement of operations in each phase, the relevant phase boundary, as illustrated by a red dashed line on drawing nos. 17-03-00B, 17-03-01 C, 17-03-02 B, 17-03-03 B, 17-03-04 B, 17-03-05 B, 17-03-06 B, 17-03-07 B and 17-03-08 B, shall have been measured out and delineated on the ground by coloured marker posts at 10 metre intervals. No mineral extraction, landfill operations and permanent deposit of soils or overburden shall take place outside these phase boundaries within the standoff margins.

REASON: To protect and prevent pollution of the River Ouse, to safeguard boundary

hedgerows and trees and to ensure the safe working of the site in accordance with saved Policies GE10, GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 9 No operations or activities authorised by this permission, including traffic entering and leaving the site, shall take place outside the hours specified below:

0700 hours to 1800 hours Mondays to Fridays

0700 hours to 1300 hours Saturdays

and no such operations or activities shall take place on Sundays or Public / Bank Holidays.

REASON: To minimise disturbance at nearby properties by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 10 No operations shall take place except in accordance with the phasing sequence shown on drawing nos. 17-03-00B, 17-03-01 C, 17-03-02 B, 17-03-03 B, 17-03-04 B, 17-03-05 B, 17-03-06 B, 17-03-07 B and 17-03-08 B except as may be modified by details subsequently submitted to discharge the requirements of other conditions of this permission. Entry into phases 3 and 4 shall be subject to the prior written agreement of the Local Planning Authority, which shall be dependent upon progress having been made with restoration in the preceding phases in accordance with the approved phasing sequence. In the event that the high-pressure gas pipeline along the former railway line corridor is not diverted, the limits of extraction in each phase and proposed crossing point of the haul road, pipeline and National Cycle Route 51 shall be in accordance with the details shown on drawing no. 18-01-01.

REASON: To ensure a satisfactory and orderly programme of working and restoration of the site within a reasonable timescale and to minimise the amount of disturbed land at any one time in accordance and to safeguard the amenities of the surrounding area in accordance with saved Policies M6, GE18 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 11 Notwithstanding the sequence of phasing drawings approved under condition 10 of this permission, no soil stripping shall take place in the phase 1 mineral extraction area unless and until a revised / alternative set of phasing drawings have been submitted to and approved in writing by the Local Planning Authority. Such revised drawings shall show:

- i) the operational arrangements for protection of the existing National Cycle Network Route 51 and associated former rail corridor, including details of the crossing point with the quarry haul road and a system for giving priority to cycleway users and installation of warning signage (in the event that the National Grid gas pipeline is not diverted); and
- ii) the operational arrangements in connection with the temporary re-routing of the National Cycle Network Route 51 around the southern side of phases 1 and 2 (in the event that the pipeline is removed / relocated).

The revised / alternative set of phasing drawings shall thereafter be complied with at all times. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused

unless the condition is imposed in this form).

REASON: To clarify working arrangements in accordance with saved Policies GE1, GE21 and M6 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 12 No soil stripping on the site shall take place unless and until a detailed scheme for the installation of crossing points to protect the integrity of any underlying pipelines and arrangements for crossing the Cuckoo Brook has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the scheme as may be approved shall be implemented in full and complied with at all times.

REASON: To clarify operational arrangements and to minimise impacts on the Cuckoo Brook in accordance with saved Policies GE1 and M6 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 13 **No development authorised by this permission shall take place unless and until a site specific Arboricultural Method Statement (AMS), incorporating a Tree Protection Plan, has been submitted to and approved in writing by the Local Planning Authority. The AMS shall include details of and provision for:**

- **measures for the safeguarding of trees and shrubs throughout the operational period, including root and crown protection of trees, shrubs and hedgerows;**
- **proposals for detailed siting of the bailey bridge in order to minimise arboricultural and ecological impacts based on a detailed assessment of the engineering requirements of the crossing;**
- **the precise alignment and width of the internal haul road linking the extraction land to the mineral plant site, the overall corridor of disturbance resulting from those works and appropriate standoffs to be adopted to protect tree belts and other vegetation alongside the River Ouse, Gadsey Brook and Cuckoo Brook;**
- **installation of any temporary ground protection;**
- **groundworks and foundations;**
- **installation of any new hard surfacing (materials, design constraints, implications for levels);**
- **a schedule of works to trees, shrubs and hedgerows; and**
- **a schedule of specific events requiring input or arboricultural supervision and monitoring and compliance.**

Thereafter, no development shall be carried out except in accordance with the approved AMS and approved protection measures shall be retained for the operational life of the site.

REASON FOR PRE-COMMENCEMENT CONDITION: To safeguard the health of existing trees, shrubs and hedgerows on or adjacent to the site for the duration of site operations in the interests of visual amenity and to minimise impacts on ecological receptors in accordance with saved Policies GE9, GE10, GE12 and GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

- 14 **No development shall take place unless and until a monitoring and mitigation strategy for otters, reptiles, badgers and breeding birds, to include details of timings and phasing through the operational life of the site, has been submitted to and approved in writing by the Local Planning Authority. The monitoring and mitigation strategy as may be approved shall thereafter be implemented in full and complied with at all times.**

REASON FOR PRE-COMMENCEMENT CONDITION: To safeguard any protected or rare species that may be present in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

- 15 No felling or removal of limbs from mature trees shall take place unless and until a re-checking survey for roosting bats has first been undertaken by a licensed bat ecologist. Should the species be found to be present, an appropriate compensation / mitigation strategy accompanied by a programme for its implementation shall have been submitted to and approved in writing by the Local Planning Authority before any such tree works commence. Thereafter, no development shall be carried out except in accordance with the approved strategy.

REASON: To safeguard any protected or rare species that may be present in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 16 No tree, shrub, scrub or other vegetation removal shall be carried out during the bird nesting season (March to August inclusive) unless the vegetation identified for removal has been immediately prior checked by an appropriately qualified ecologist and appropriate advance measures put in place to afford necessary protection to the written approval of the Local Planning Authority.

REASON: To safeguard nesting birds in the interests of nature conservation in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 17 Soils shall not be handled and managed except in accordance with mitigation measures detailed in section 8.2.3 of the Planning Application Statement (dated November 2017) and item 3 of SLR's letter dated 19th April 2018. Soil handling and soil movements shall not take place except between the months of October to March (inclusive) unless the prior written approval of the Local Planning Authority has been obtained.

REASON: To protect the soil resource and soil structure and to ensure regular auditing of soil volumes in accordance with saved Policy GE6 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 18 Bunds for the storage of soils shall conform to the following criteria:
- topsoil bunds shall not exceed 3 metres in height and subsoil bunds shall not exceed 5 metres in height; and

- the outer face of all soil bunds shall have a gradient not exceeding 1V: 4H.

REASON: To prevent loss or damage to soils needed to achieve a high standard of restoration in accordance with saved Policies GE6 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 19 All soil storage bunds identified to remain in situ for more than 6 months or over the winter period shall be grassed over and weed control and other necessary maintenance carried out.

REASON: To prevent loss or damage to soils needed to achieve a high standard of restoration and to ensure bunds maintain a tidy appearance in accordance with saved Policies GE6, GE9 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 20 Except during periods of temporary works, the level of noise attributable to any operations or activities authorised by this permission shall not exceed the following limits at the residential receptors listed below when expressed as a free-field LAeq, 1 hr:

- 54dB at the residential boundary of Cuckoo Brook House;
- 54dB at the residential boundary of Gadsey Brook Cottage;
- 54dB at the residential boundary of Hill Farm House;
- 53dB at the residential boundary of Mill Farm;
- 55dB at the residential boundary of Willowhill Farm;
- 45dB at the residential boundary of Old Mills Cottage;
- 45dB at Chapel Lane, Willington; and
- 55dB or 10dB(A) above background noise level (LA90, 1hr), whichever is the lower, at the boundary of any other occupied residential property in the vicinity of the site.

REASON: To minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and Minerals Planning Practice Guidance (PPG).

- 21 The level of noise attributable to temporary works authorised by this permission (i.e. bund construction and removal, soil stripping and final restoration), shall not exceed 70dB, when expressed as a free-field LAeq, 1 hr, at the boundary of any occupied residential property in the vicinity of the site. Temporary works shall not exceed a period of eight weeks in any calendar year.

REASON: To minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and Minerals Planning Practice Guidance.

- 22 No development authorised by this permission shall take place unless and until a scheme for the monitoring and control of noise from the operational site has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall include and provide for:**

- **noise monitoring and recording procedures;**
- **presentation of monitoring results to the Local Planning Authority; and**
- **procedures to be adopted in the event of complaints or the maximum permitted noise levels referred to in condition 20 being exceeded, including**

the introduction of additional mitigation measures, where necessary, following investigation of the exceedance or complaint.

Thereafter, the scheme as may be approved shall be implemented in full and complied with at all times.

REASON FOR PRE-COMMENCEMENT CONDITION: To enable the impact of operational noise to be monitored and controlled and to enable mitigation steps to be devised where necessary so as to minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

- 23 No on-site plant, equipment and the applicant's fleet of Heavy Goods Vehicles (HGVs) shall utilise tonal reversing alarms.

REASON: To enable the Local Planning Authority to exercise control over activities that may cause nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 24 Notwithstanding the dust mitigation measures set out in section 8.2.6 of the Planning Application Statement (dated November 2017), no soil stripping shall take place on site unless and until a Dust Mitigation Plan (DMP) has been submitted to and approved in writing by the Local Planning Authority. The submission shall accord with the recommended content for a DMP as set out in guidance issued by the Institute of Air Quality Management (Appendix 6 of 'Guidance on the Assessment of Mineral Dust Impacts for Planning' - May 2016). Thereafter, the DMP as may be approved shall be implemented in full and complied with at all times.

REASON: To ensure that dust impacts associated with the operation of the development are minimised in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 25 No waste materials other than inert waste shall be imported to and deposited on the site.

REASON: For the avoidance of doubt and to prevent pollution in accordance with saved Policy GE17 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 26 No de-watering operations shall be undertaken on the site unless and until a Hydrometric Monitoring Scheme (HMS) has have been submitted to and approved in writing by the Local Planning Authority. The HMS shall provide for monitoring and mitigation of impacts on the water environment in accordance with the recommendations set out in paragraphs (i) to (viii) of section 8.2.4 of the Planning Application Statement (dated November 2017) and Table 9-16 of the Environmental Statement Volume 1 (dated November 2017). The HMS shall cover all on-site boreholes and groundwater level and lake level monitoring points as identified in chapter 9 of the Environmental Statement Volume 1 (dated November 2017), make provision for baseline monitoring of off-site locations and include a commitment to submit an annual monitoring report to the Local Planning Authority for the full duration of the scheme. Thereafter, the HMS as may be

approved shall be implemented in full and complied with at all times.

REASON: To ensure the development does not harm the water environment in accordance with paragraph 170 of the NPPF and saved Policies GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. The scheme is intended to secure de-watering of the site, an acceptable means of water supply, protection of groundwater dependant terrestrial systems and the protection of groundwater dependent abstractions.

- 27 No de-watering operations shall be undertaken on the site unless and until a monitoring and maintenance plan in respect of water quality has been submitted to and approved in writing by the Local Planning Authority. Such plan shall include a monitoring programme and timetable for submission of monitoring reports to the Local Planning Authority. The submitted reports shall contain details of any necessary contingency actions arising from the monitoring. The plan as may be approved shall be implemented and complied with at all times.

REASON: To ensure that the site does not pose any further risk to the water environment by managing any ongoing issues and ensuring the completion of any necessary long-term remediation measures in accordance with paragraph 170 of the NPPF and saved Policies GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 28 If, during the carrying out of the development hereby permitted, contamination not previously identified is found to be present then all operations shall cease (unless otherwise agreed in writing by the Local Planning Authority) and shall not resume until a remediation strategy detailing how the unsuspected contamination shall be dealt with has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the remediation strategy shall be implemented as approved and complied with at all times.

REASON: To protect and prevent pollution of controlled waters from potential pollutants associated with current and previous land uses (in particular the disused railway embankment) in accordance with paragraphs 170, 178, 179 and 180 of the NPPF and saved Policy GE19 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 29 Throughout the operational period of the development, no surface water run-off shall be discharged into any watercourse or soakaway unless it has passed through a settlement facility or settlement facilities. Such facility or facilities shall be retained and maintained until the completion of operations.

REASON: To protect water quality and biodiversity in accordance with saved Policies GE12, GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 30 The whole of the western and southern boundaries of the mineral extraction land shall be enhanced during the planting season preceding or during the Site Establishment phase by the planting of hedgerows and hedgerow trees wherever gaps exist in boundary vegetation or vegetation is otherwise absent. The hedgerows and hedgerow trees shall be planted in accordance with the planting schedule / mix shown on drawing no. 17-03-01 C (Site Establishment). All such planting shall be maintained for a period of 5 years from date of planting and any failed, damaged or missing plants during this period

shall be replaced with others of a similar size and species and maintained until satisfactorily established.

REASON: To enhance the appearance of the area during the operational life of the site and to ensure a high standard of restoration in accordance with saved Policies GE9 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 31 No fixed lighting shall be used on site except in accordance with the details set out in item 12 of SLR's letter dated 19th April 2018. All lighting shall be turned off outside the operational hours hereby permitted (except where activated by a movement sensor).

REASON: To minimise the visual impact of the development during the hours of darkness in accordance with saved Policies GE9 and GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 32 The final restoration contours on the mineral extraction land shall accord with the details shown on drawing nos. W16_LAN_020 Rev. A (Restoration Strategy) and W16_LAN_022 Rev. A (Restoration Strategy - pipeline retained). Within 1 month of the completion of the final restoration landform within each phase, a topographic survey of the site shall be carried out at 0.5 metre intervals (to Ordnance Survey Newlyn). The survey results shall be submitted in writing to the Local Planning Authority within 21 days of the date on which the survey was conducted.

REASON: To enable ground levels to be checked to ensure there is no increased risk of flooding due to impedance of flood flows and reduction of flood storage capacity post mineral extraction in accordance with saved Policy GE19 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 33 Notwithstanding the approved restoration strategies shown on drawing nos. W16_LAN_020 Rev A and W16_LAN_022 Rev. A, no mineral extraction shall commence in phase 2 unless and until a detailed final restoration scheme, accompanied by drawings at a scale of 1:500, has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall be in broad accordance with the restoration strategies, but shall additionally show or provide for:

- i) final restoration contours at 0.5 metre intervals for the whole of the Dairy Farm area of the site;
- ii) proposals for removal of buildings, structures, fixed plant and machinery, St Neots Road access, internal access roads, car parks, hardstandings, foundations, culverts and pipeline crossing points and the satisfactory reinstatement of affected areas;
- iii) proposals for final spreading of subsoil and topsoil bunds to restore the mineral plant site area having regard to the existing approved soil handling scheme for the wider Dairy Farm site (ref. 17/01931/AOC);
- iv) engineered land drainage for the restored mineral extraction land;
- v) layout and positioning of stockproof fencing and gates;
- vi) extension of the conservation headland along the south bank of the River Ouse through the extraction stand-off margin;
- vii) establishment of a further small wooded copse in the north-east corner of the wet grassland area;
- viii) proposed planting matrices;
- ix) realignment of the northern edge of the triangular woodland to better relate to changes in contours;
- x) planting layouts which do not cause interference to the gas pipeline and pylons and

overhead power lines; and

xi) a method statement for the re-creation of the neutral grassland and lowland meadow habitats within the Blunham Disused Railway County Wildlife Site (if applicable) covering:

- proposals for retention, stockpiling and subsequent re-use of existing on-site soil resources along the former railway line embankment;
- establishment of a suitable substrate to a minimum depth of 250mm to sustain the desired habitats and how restoration soils will be sourced and tested;
- the scope of any ameliorative work, established via soil testing, in order to identify any incoming soils that require treatment; and
- presentation of results of laboratory testing of samples of restoration soils to demonstrate their suitability.

Thereafter, no restoration works shall take place except in accordance with the detailed final restoration scheme.

REASON: To ensure that the site is restored to a high standard in accordance with saved Policy GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 34 Notwithstanding the aftercare proposals contained within chapter 7 of the Planning Application Statement (dated November 2017), no mineral extraction shall commence in phase 2 unless and until a detailed five-year aftercare scheme, incorporating an annual programme of management operations and tasks for the agricultural, nature conservation and amenity afteruse areas and management plans for the River Ouse and Blunham Disused Railway County Wildlife Sites, has been submitted to and approved in writing by the Local Planning Authority. The scheme as may be approved shall be carried out progressively and completed within 5 years of completion of restoration in each phase.

REASON: To ensure the satisfactory aftercare of the restored site in accordance with saved Policy GE27 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

- 35 An Annual Environmental Report (AER) shall be submitted to the Local Planning Authority by 31 March each year for the previous period from 1 January to 31 December. The report shall contain the following information:

- i) a statement of operations over the past year, to include progress on soil and overburden removal, mineral extraction in terms of tonnage of sales (categorised by building sand / concrete sand / gravel), tonnage of mineral reserves (categorised by building sand / concrete sand / gravel), restoration and a summary of monitoring results for noise, dust and the water environment;
- ii) details of tipping rates and remaining void space;
- iii) identification of any problem(s) caused by operations over the past year and any action(s) taken to address these;
- iv) a statement of planned operations over the forthcoming year;
- v) identification of any potential problem(s) which may emerge as a result of planned operations over the forthcoming year and possible remedial action(s); and
- vi) the results of detailed soil surveys / audits from each period of soil stripping to determine the thickness of topsoil and subsoil, the boundary between different soil types and any consequent revisions to the volumes of temporary and long term bunds and restoration depths.

REASON: To facilitate monitoring and to assist the Local Planning Authority in the forward planning of mineral resources.

NOTES AND INFORMATIVES TO APPLICANT

Any conditions in bold must be discharged before the development commences. Failure to comply with this requirement could invalidate this permission and/or result in enforcement action.

The application form for approval of details reserved by a condition, guidance notes and fees (i.e. £34.00 for householder applications and £116.00 for all other applications, per submission) can be found on our website www.centralbedfordshire.gov.uk or alternatively call Customer Services on 0300 300 8307 for hard copy forms.

- 1 Diverting and stopping-up Public Rights of Way: The grant of planning permission does not entitle the developer to obstruct a public right of way. It should not be assumed that because planning permission has been granted that an order under section 257 of the Town and Country Planning Act 1990 (as amended), for diversion or extinguishment of public footpath or bridleway, will invariably be made or confirmed. Development, insofar as it affects the legal line of a right of way, should not be started, and the right of way should be kept open for public use, unless or until the necessary order has come into effect.
- 2 The applicant is advised that any badger sett closure will require an application for a licence to be granted by Natural England. Closure of any sett will need to be undertaken in full accordance with the terms and conditions of any such licence which may be issued.
- 3 A Flood Risk Activity Permit will need to be obtained from the Environment Agency prior to installation of the new bailey bridge crossing.
- 4 Upon implementation of this permission, the requirements of the consents covering the wider Dairy Farm Quarry (refs. 16/00958/S73WM and 16/00959/S73WM) will be superseded in part.
- 5 A Section 106 Agreement dated 17 May 2019 attaches to this permission.

Andrew Davie

Andrew Davie
Assistant Director - Development Infrastructure

Date of Issue: 21 May 2019

TOWN AND COUNTRY PLANNING ACT 1990

NOTIFICATION TO BE SENT TO AN APPLICANT WHEN A LOCAL PLANNING AUTHORITY REFUSE PLANNING PERMISSION OR GRANT IT SUBJECT TO CONDITIONS

Appeals to the Secretary of State

- If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- If you want to appeal against your local planning authority's decision then you must do so within 6 months of the date of this notice.
- Appeals must be made using a form which you can get from the Secretary of State at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN (Tel: 0303 444 5000) or online at <https://acp.planninginspectorate.gov.uk>
- The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

APPENDIX ESSD C

PLANNING PERMISSION REFERENCE 17/03351/EIA/MW



TOWN AND COUNTRY PLANNING ACT 1990

TOWN AND COUNTRY PLANNING GENERAL DEVELOPMENT PROCEDURE ORDER

APPLICATION NO: 17/03351/EIAWM Environmental Impact Assessment WM Application

To: Breedon Southern Ltd
c/o SLR Consultants Ltd Mr G Jenkins
Fulmar House
Beignon Close
Ocean Way
Cardiff
CF24 5PB

Bedford Borough Council *HEREBY GRANTS PLANNING PERMISSION SUBJECT TO A LEGAL AGREEMENT* in accordance with: the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended), The Environmental Impact Assessment, the details on this notice including any conditions and the approved plans listed below.

APPLICANT : Breedon Southern Ltd

LOCATION : Land Either Side Of Willington Lock St Neots Road Bedford Bedfordshire

PARTICULARS OF DEVELOPMENT :

Extraction of sand and gravel; installation of mineral processing plant; construction of a quarry access onto St Neots Road; installation of a temporary access road crossing the River Ouse; and restoration of extraction area partly using imported inert material.

Failure to comply with the conditions overleaf may result in legal action. Please check these carefully as they may require the submission of and agreement to further details before any work commences.

PLEASE NOTE: This permission is granted under the Town and Country Planning Act 1990. It does NOT confer permission that may be required under any other legislation; e.g. the Building Regulations. Therefore, the applicant is advised to check the need for further authorisation before starting work.



Signed:

C Austin Director of Environment

Permission Date: 21 May 2019

Borough Hall,
Cauldwell Street, Bedford MK42 9AP
Telephone (01234) 267422 Fax (01234) 718084

Application No : 17/03351/EIAWM

01. Planning permission shall extend to the site area delineated by a solid red line on the attached Plan no. 17/03351/EIAWM-1. The development hereby permitted shall be carried out in accordance with the particulars of the development, drawings and specifications contained within the planning application. The approved drawings and particulars comprise (except where modified by other conditions of this permission):

Documents:

- * Application form dated 23rd November 2017;
- * Planning Supporting Statement (dated November 2017);
- * SLR letter dated 19th April 2018 (ref. 407.06559.00008);
- * SLR e-mail and attachment dated 18th June 2018;
- * SLR e-mail and attachment dated 21st June 2018; and
- * the applicant's e-mail dated 5th July 2018.

Drawings (assuming gas pipeline removed):

- * Drawing no. 17-03-00 B (Topographical Survey);
- * Drawing no. 17-03-01 C (Site establishment);
- * Drawing no. 17-03-02 B (End of Phase 1);
- * Drawing no. 17-03-03 B (End of Phase 2);
- * Drawing no. 17-03-04 B (End of Phase 3);
- * Drawing no. 17-03-05 B (End of Phase 4);
- * Drawing no. 17-03-06 B (End of Phase 5 Restoration);
- * Drawing no. 17-03-07 B (End of Phase 6 Restoration);
- * Drawing no. 17-03-08 B (Final landform);
- * Drawing no. 17-03-09 (Borehole Location Plan)
- * Drawing no. 17-03-10 Rev C (Location Plan);
- * Drawing no. 17-03-12 (Processing plant layout);
- * Drawing no. 17178-01 (Proposed Site Layout – concrete plant);
- * Drawing ref. 170104 (Proposed New Site Access to St Neots Road Illustrative Layout);
- * Drawing no. EC03_4532_AIA_Bridge_V01 (Bridge Crossing Plan);
- * Drawing no. W16_LAN_020 Rev. A (Restoration Strategy);
- * Drawing no. W16_LAN_021 Rev A (Restoration Sections Option C); and
- * Drawing no. W16_LAN_025 (Proposed Bailey Bridge Crossing);

Drawings (assuming gas pipeline retained)

- * Drawing no. W16_LAN_022 Rev A (Restoration Strategy pipeline retained);
- * Drawing no. W16_LAN_023 Rev A (Restoration Sections pipeline retained); and
- * Drawing no. W16_LAN_024 Rev A (Existing Situation); and
- * Drawing no. 18-01-01 (Topographical Survey Revised Phases).

Any material change to the approved plans will require a formal planning application to vary this condition and any non-material change to the plans will require the submission of details and the agreement in writing by the Local Planning Authority prior to any non-material change being made.

REASON: To ensure the development is carried out in an acceptable manner, and to provide certainty on what is being authorised by this permission in accordance with advice contained in National Planning Practice Guidance (Use of Planning Conditions, Paragraph 022).

02. The development hereby permitted shall be begun not later than the expiration of 3 years from the date of this permission. Written notification of the date of commencement shall be sent to the Local Planning Authority within 7 days of such commencement.

REASON: To comply with section 91 of the Town and County Planning Act 1990 as amended by section 51 of the Planning and Compulsory Act 2004 and to enable the Local Planning Authority to monitor other conditions of this permission.

03. The mineral extraction hereby permitted shall cease within 4 years of commencement as notified to the Local Planning Authority pursuant to condition 2, and inert landfilling shall cease 30 months after the cessation of mineral extraction, the date of which shall be notified in writing to the Local Planning Authority. Final restoration and landscaping works, but excluding aftercare, shall be completed within 1 year of the date of cessation of inert landfilling

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REASON: To ensure that all operations are completed within an acceptable timescale and to prevent prolonged disturbance to the local environment in accordance with saved policies GE18 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

04. No soil stripping shall take place on the site unless and until an archaeological strategy for evaluation and if necessary, a further mitigation strategy based on the outcome of the evaluation have been submitted to and approved in writing by the Local Planning Authority. Should further mitigation be necessary, the archaeological mitigation strategy shall include the following components:

- * a method statement for the investigation of all archaeological remains present that will be destroyed by the development and/or a method statement for the preservation "in situ" of archaeological remains, including specific measures for the protection of the neighbouring scheduled monuments during the operation of the mineral plant site and during the course of restoration earthworks and monitoring of the scheduled monuments at the post-restoration stage;
- * a strategy for community engagement;
- * an outline strategy for post-excavation assessment, analysis and publication; and
- * a timetable for each stage of the archaeological works.

Development shall thereafter only be implemented in accordance with the archaeological scheme which shall be implemented in full.

REASON: To safeguard archaeological assets within the approved development boundary from impacts relating to any groundworks associated with the development scheme and to ensure the proper and timely preservation and/or investigation, recording, reporting and presentation of archaeological assets affected by this development, in accordance with saved Policies BE24 and BE25 of the Bedford Borough Local Plan 2002, Policy CP23 of the Bedford Borough Core Strategy and Rural Issues Plan 2008 and the NPPF.

05. Written notification of the date of completion of the archaeological fieldwork shall be sent to the Local Planning Authority within seven days of such completion. No soil stripping shall take place on the site unless and until the archaeological Post Excavation Assessment Report and Updated Project Design has been submitted to and approved in writing by the Local Planning Authority. The Post Excavation Assessment and Updated Project Design shall be submitted within 6 months of the notified date of completion of the archaeological fieldwork. The archaeological Post Excavation Assessment and Updated Project Design shall follow the parameters in the approved outline strategy for post-excavation assessment, analysis and publication.

REASON: To ensure that the record of archaeological fieldwork is made publicly available in accordance with paragraph 141 of the NPPF.

06. The archaeological post-excavation analysis (as specified in the Updated Project Design), the preparation of the site archive for deposition with a store approved by the Local Planning Authority, the completion of the archive report, and the submission of the publication report shall be undertaken within 2 years of the approval of the Updated Project Design.

REASON: To ensure that the record of archaeological fieldwork is made publicly available in accordance with paragraph 141 of the NPPF.

07. Access and egress for site traffic shall only be by way of the approved junction arrangement shown on drawing ref. 170104 (Proposed New Site Access to St Neots Road).

REASON: In order to minimise danger, obstruction and inconvenience to highway users in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002.

08. The site access hereby approved shall not be brought into use unless and until visibility splays have been provided at the junction of the access with the public highway as shown on drawing ref. 170104 (Proposed New Site Access to St Neots Road). The splay lines shall not be less than 4.5 metres measured along the centre line of the proposed access from its junction with the channel of the carriageway and not less than 215 metres measured from the centre line of the proposed access along the line of the nearside channel of the carriageway to the west and 160 metres to the east. Thereafter, all parts of the splays shall be kept free from obstructions above the adjacent carriageway level.

REASON: In the interests of highway safety in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002.

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09. No development authorised by this permission shall take place unless and until a scheme for the provision of junction warning / turning traffic signs has been submitted to and approved in writing by the Local Planning Authority. The site access hereby approved shall not be brought into use unless and until such scheme has been implemented in full in accordance with the approved details.

REASON FOR PRE-COMMENCEMENT CONDITION: In order to minimise danger, obstruction and inconvenience to highway users in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

10. No development authorised by this permission shall take place unless and until a scheme of measures to provide for the prevention of right turns out of the site and a timetable for implementation has been submitted to and approved in writing by the Local Planning Authority. The site access hereby approved shall not be brought into use unless and until such scheme has been implemented in accordance with the approved details and thereafter the scheme shall be complied with at all times.

REASON FOR PRE-COMMENCEMENT CONDITION: In the interests of highway safety and to ensure that HGVs avoid local villages and utilise the primary freight route network in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005, saved policy BE30 of the Bedford Borough Local Plan 2002 and the adopted Bedford Borough Freight Strategy 2011-2021. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

11. The number of Heavy Goods Vehicle (HGV) movements into / out of the site shall be limited to a maximum of 260 per working day (pro rata for part working days), with no more than 40 HGV movements per hour during the peak morning period of 0700 to 0900 hours. A daily log of HGV movements shall be maintained at all times and shall be made available for inspection by the Local Planning Authority within 7 calendar days of any written request. (For the purposes of this condition, a HGV means a vehicle above a gross weight of 7.5 tonnes and a single HGV entering and leaving the site equals two movements).

REASON: In the interests of highway safety in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002.

12. No development authorised by this permission shall take place unless and until a scheme for monitoring of the site entrance area by CCTV camera installation has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall include details of:
- * the columns and types of cameras to be used;
 - * the coverage of the cameras; and
 - * provision for the Local Planning Authority to remotely access live and recorded footage.

The scheme as may be approved shall be implemented in full prior to the export of sand and gravel from the site and thereafter the scheme shall be complied with at all times.

REASON FOR PRE-COMMENCEMENT CONDITION: To allow the monitoring of conditions 10 ,11, 13 and 30 in accordance with saved Policies GE18 and GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

13. No operations or activities authorised by this permission, including traffic entering and leaving the site, shall take place outside the hours specified below:

0700 hours to 1800 hours Mondays to Fridays
0700 hours to 1300 hours Saturdays

and no such operations or activities shall take place on Sundays or Public / Bank Holidays.

REASON: To minimise disturbance at nearby properties by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

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14. No operations shall take place except in accordance with the phasing sequence shown on drawing nos. 17-03-00B, 17-03-01 C, 17-03-02 B, 17-03-03 B, 17-03-04 B, 17-03-05 B, 17-03-06 B, 17-03-07 B and 17-03-08 B except as may be modified by details subsequently submitted to discharge the requirements of other conditions of this permission. Entry into phases 3 and 4 shall be subject to the prior written agreement of the Local Planning Authority, which shall be dependent upon progress having been made with restoration in the preceding phases in accordance with the approved phasing sequence. In the event that the high-pressure gas pipeline along the former railway line corridor is not diverted, the limits of extraction in each phase and proposed crossing point of the haul road, pipeline and National Cycle Route 51 shall be in accordance with the details shown on drawing no. 18-01-01.

REASON: To ensure a satisfactory and orderly programme of working and restoration of the site within a reasonable timescale and to minimise the amount of disturbed land at any one time in accordance and to safeguard the amenities of the surrounding area in accordance with saved Policies M6, GE18 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

15. No soil stripping shall take place unless and until a detailed scheme for the installation of crossing points to protect the integrity of any underlying pipelines and access arrangements for crossing the Cuckoo Brook has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the scheme as may be approved shall be implemented in full and complied with at all times.

REASON: To clarify operational arrangements in accordance with saved Policy GE1 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

16. The mineral plant site hereby permitted shall not be used for the stockpiling and processing of sand and gravel won from outside the application site. All structures, machinery, equipment and foundations forming the sand and gravel processing plant and concrete batching plant shall be removed from the site within 12 months of the date of cessation of mineral extraction.

REASON: To restrict development to that applied for and to ensure the timely removal of the mineral processing plant.

17. No development authorised by this permission shall take place unless and until a site specific Arboricultural Method Statement (AMS), incorporating a Tree Protection Plan, has been submitted to and approved in writing by the Local Planning Authority. The AMS shall include details of and provision for:

- * measures for the safeguarding of trees and shrubs throughout the operational period, including root and crown protection of trees, shrubs and hedgerows;
- * proposals for detailed siting of the Bailey bridge in order to minimise arboricultural and ecological impacts based on a detailed assessment of the engineering requirements of the crossing;
- * the precise alignment and width of the internal haul road linking the extraction land to the mineral plant site, the overall corridor of disturbance resulting from those works and appropriate standoffs to be adopted to protect tree belts and other vegetation alongside the River Ouse, Gadsey Brook and Cuckoo Brook;
- * installation of any temporary ground protection;
- * groundworks and foundations;
- * installation of any new hard surfacing (materials, design constraints, implications for levels);
- * a schedule of works to trees, shrubs and hedgerows; and
- * a schedule of specific events requiring input or arboricultural supervision and monitoring and compliance.

Thereafter, no development shall be carried out except in accordance with the approved AMS and approved protection measures shall be retained for the operational life of the site.

REASON FOR PRE-COMMENCEMENT CONDITION: To safeguard the health of existing trees, shrubs and hedgerows on or adjacent to the site for the duration of site operations in the interests of visual amenity and to minimise impacts on ecological receptors in accordance with saved Policies GE9, GE10, GE12 and GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

18. No development shall take place unless and until a monitoring and mitigation strategy for otters, reptiles, badgers and breeding birds, to include details of timings and phasing through the operational life of the site, has been submitted to and approved in writing by the Local Planning Authority. The monitoring and mitigation strategy as may be approved shall thereafter be implemented in full and complied with at all times.

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REASON: To safeguard any protected or rare species that may be present in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

19. No felling or removal of limbs from mature trees shall take place unless and until a re-checking survey for roosting bats has first been undertaken by a licensed bat ecologist. Should the species be found to be present, an appropriate compensation / mitigation strategy accompanied by a programme for its implementation shall have been submitted to and approved in writing by the Local Planning Authority before any such tree works commence. Thereafter, no development shall be carried out except in accordance with the approved strategy.

REASON: To safeguard any protected or rare species that may be present in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

20. No tree, shrub, scrub or other vegetation removal shall be carried out during the bird nesting season (March to August inclusive) unless the vegetation identified for removal has been immediately prior checked by an appropriately qualified ecologist and appropriate advance measures put in place to afford necessary protection to the written approval of the Local Planning Authority.

REASON: To safeguard nesting birds in the interests of nature conservation in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

21. Soils shall not be handled and managed except in accordance with mitigation measures detailed in section 8.2.3 of the Planning Application Statement (dated November 2017) and item 3 of SLR's letter dated 19th April 2018. Soil handling and soil movements shall not be carried out except between the months of October to March inclusive unless the prior written approval of the Local Planning Authority has been obtained.

REASON: To protect the soil resource and soil structure and to ensure regular auditing of soil volumes in accordance with saved Policy GE6 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

22. Bunds for the storage of soils shall conform to the following criteria:

- * topsoil bunds shall not exceed 3 metres in height and subsoil bunds shall not exceed 5 metres in height; and
- * the outer face of all soil bunds shall have a gradient not exceeding 1V: 4H.

REASON: To prevent loss or damage to soils needed to achieve a high standard of restoration in accordance with saved Policies GE6 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

23. All soil storage bunds identified to remain in situ for more than 6 months or over the winter period shall be grassed over and weed control and other necessary maintenance carried out.

REASON: To prevent loss or damage to soils needed to achieve a high standard of restoration and to ensure bunds maintain a tidy appearance in accordance with saved Policies GE6, GE9 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

24. Except during periods of temporary works, the level of noise attributable to any operations or activities authorised by this permission shall not exceed the following limits at the residential receptors listed below when expressed as a free-field LAeq, 1 hr:

- * 54dB at the residential boundary of Cuckoo Brook House;
- * 54dB at the residential boundary of Gadsey Brook Cottage;
- * 54dB at the residential boundary of Hill Farm House;
- * 53dB at the residential boundary of Mill Farm;
- * 55dB at the residential boundary of Willowhill Farm;
- * 45dB at the residential boundary of Old Mills Cottage;
- * 45dB at Chapel Lane, Willington; and
- * 55dB or 10dB(A) above background noise level (LA90, 1hr), whichever is the lower, at the boundary of any other occupied residential property within the vicinity of the site.

REASON: To minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and Minerals Planning Practice Guidance.

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25. The level of noise attributable to temporary works authorised by this permission (i.e. bund construction and removal, soil stripping and final restoration), shall not exceed 70dB, when expressed as a free-field LAeq, 1 hr, at the boundary of any occupied residential property in the vicinity of the site. Temporary works shall not exceed a period of eight weeks in any calendar year.

REASON: To minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and Minerals Planning Practice Guidance.

26. No development authorised by this permission shall take place unless and until a scheme for the monitoring and control of noise from the operational site has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall include and provide for:

- * noise monitoring and recording procedures;
- * presentation of monitoring results to the Local Planning Authority; and
- * procedures to be adopted in the event of complaints or the maximum permitted noise levels referred to in condition 24 being exceeded, including the introduction of additional mitigation measures, where necessary, following investigation of the exceedance or complaint.

Thereafter, the scheme as may be approved shall be implemented in full and complied with at all times.

REASON FOR PRE-COMMENCEMENT CONDITION: To enable the impact of operational noise to be monitored and controlled and to enable mitigation steps to be devised where necessary so as to minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

27. No on-site plant, equipment and the applicant's fleet of Heavy Goods Vehicles (HGVs) shall utilise tonal reversing alarms.

REASON: To enable the Local Planning Authority to exercise control over activities that may cause nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

28. The site access hereby approved shall not be brought into use unless and until a noise attenuation bund has been constructed on the north side of the internal access road in accordance with details that have first been submitted to and approved in writing by the Local Planning Authority. Such submission shall be supported by calculations of the predicted level of attenuation at the nearest residential receptor. The bund as may be approved shall be retained throughout the period of mineral exportation and inert waste importation.

REASON: To minimise nuisance to nearby residents by reason of noise impacts from HGVs travelling on the initial section of the access road off St Neots Road in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

29. Notwithstanding the dust mitigation measures set out in section 8.2.6 of the Planning Application Statement (dated November 2017), no soil stripping shall take place on site unless and until a Dust Mitigation Plan (DMP) has been submitted to and approved in writing by the Local Planning Authority. The submission shall accord with the recommended content for a DMP as set out in guidance issued by the Institute of Air Quality Management (Appendix 6 of 'Guidance on the Assessment of Mineral Dust Impacts for Planning' - May 2016). Thereafter, the DMP as may be approved shall be implemented in full and complied with at all times.

REASON: To ensure that dust impacts associated with the operation of the development are minimised in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

30. No development authorised by this permission shall take place unless and until a comprehensive scheme of site management procedures for preventing the carriage of sand, mud, debris and other extraneous materials onto the public highway has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall also include details of the construction design of the loop based internal access road and associated drainage system and the materials to be used in the formation of the durable haul track from the mineral plant site to the Bailey bridge. Such scheme as may be approved shall be implemented in full and complied with at all times.

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REASON FOR PE-COMMENCEMENT CONDITION: In order to minimise danger, obstruction and inconvenience to users of the highway in accordance with saved Policies GE18 and GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

31. No loaded Heavy Goods Vehicles (HGVs) shall leave the site unsheeted.

REASON: To prevent the deposit of sand, mud and debris on the highway in the interests of highway safety and local amenity in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

32. No waste materials other than inert waste shall be imported to and deposited on the site.

REASON: For the avoidance of doubt and to prevent pollution in accordance with saved Policy GE17 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

33. No de-watering operations shall be undertaken on the site unless and until a Hydrometric Monitoring Scheme (HMS) has been submitted to and approved in writing by the Local Planning Authority. The HMS shall provide for monitoring and mitigation of impacts on the water environment in accordance with the recommendations set out in paragraphs (i) to (viii) of section 8.2.4 of the Planning Application Statement (dated November 2017) and Table 9-16 of the Environmental Statement Volume 1 (dated November 2017). The HMS shall cover all on-site boreholes and groundwater level and lake level monitoring points as identified in chapter 9 of the Environmental Statement Volume 1 (dated November 2017), make provision for baseline monitoring of off-site locations and include a commitment to submit an annual monitoring report to the Local Planning Authority for the full duration of the scheme. Thereafter, the HMS as may be approved shall be implemented in full and complied with at all times.

REASON: To ensure the development does not harm the water environment in accordance with paragraph 109 of the NPPF and saved Policies GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. The scheme is intended to secure de-watering of the site, an acceptable means of water supply, protection of groundwater dependant terrestrial systems and the protection of groundwater dependent abstractions.

34. No de-watering operations shall be undertaken on the site unless and until a monitoring and maintenance plan in respect of water quality has been submitted to and approved in writing by the Local Planning Authority. Such plan shall include a monitoring programme and timetable for submission of monitoring reports to the Local Planning Authority. The submitted reports shall contain details of any necessary contingency actions arising from the monitoring. The plan as may be approved shall be implemented and complied with at all times.

REASON: To ensure that the site does not pose any further risk to the water environment by managing any ongoing issues and ensuring the completion of any necessary long-term remediation measures in accordance with paragraph 109 of the NPPF.

35. If, during the carrying out of the development hereby permitted, contamination not previously identified is found to be present then all operations shall cease (unless otherwise agreed in writing by the Local Planning Authority) and shall not resume until a remediation strategy detailing how the unsuspected contamination shall be dealt with has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the remediation strategy shall be implemented as approved and complied with at all times.

REASON: To protect and prevent pollution of controlled waters from potential pollutants associated with current and previous land uses (in particular the disused railway embankment) in accordance with paragraphs 109, 120 and 121 of the NPPF and saved Policy GE19 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

36. Throughout the operational period of the development, no surface water run-off shall be discharged into any watercourse or soakaway unless it has passed through a settlement facility or settlement facilities. Such facility or facilities shall be retained and maintained until the completion of operations.

REASON: To protect water quality and biodiversity in accordance with saved Policies GE12, GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

37. The concrete batching plant hereby approved shall be finished in a dark green colour to BS 4800 12 B 29 and maintained as such for the life of the development.

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REASON: In the interests of visual amenity and to comply with Saved Policy GE9 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005, Policy CP21 of the Bedford Borough Core Strategy and Rural Issues Plan 2008 and saved Policy BE30 of the Bedford Borough Local Plan 2002.

38. No fixed lighting shall be used on site except in accordance with the details set out in item 12 of SLR's letter dated 19h April 2018. All lighting shall be turned off outside the operational hours hereby permitted (except where activated by a movement sensor).

REASON: To minimise the visual impact of the development during the hours of darkness in accordance with saved Policies GE9 and GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

39. Notwithstanding the approved restoration strategies shown on drawing nos. W16_LAN_020 Rev A (pipeline diverted) and W16_LAN_022 Rev. A (pipeline retained), no mineral extraction shall commence in phase 2 unless and until a detailed final restoration scheme, accompanied by drawings at a scale of 1:500, has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall be in broad accordance with the restoration strategies, but shall additionally show or provide for:

- final restoration contours at 0.5 metre intervals for the whole of the Dairy Farm area of the site;
- proposals for removal of buildings, structures, fixed plant and machinery, St Neots Road access, internal access roads, car parks, hardstandings, foundations, culverts and pipeline crossing points and the satisfactory reinstatement of affected areas;
- proposals for final spreading of subsoil and topsoil bunds to restore the mineral plant site area having regard to the existing approved soil handling scheme for the wider Dairy Farm site (ref. 17/01931/AOC);
- engineered land drainage for the restored mineral extraction land;
- layout and positioning of stockproof fencing and gates;
- extension of the conservation headland along the south bank of the River Ouse through the extraction stand-off margin;
- establishment of a further small wooded copse in the north-east corner of the wet grassland area;
- proposed planting matrices;
- realignment of the northern edge of the triangular woodland to better relate to changes in contours;
- planting layouts which do not cause interference to the gas pipeline and pylons and overhead power lines; and
- a method statement for the re-creation of the neutral grassland and lowland meadow habitats within the Blunham Disused Railway County Wildlife Site (if applicable) covering:

- * proposals for retention, stockpiling and subsequent re-use of existing on-site soil resources along the former railway line embankment;
- * establishment of a suitable substrate to a minimum depth of 250mm to sustain the desired habitats and how restoration soils will be sourced and tested;
- * the scope of any ameliorative work, established via soil testing, in order to identify any incoming soils that require treatment; and
- * presentation of results of laboratory testing of samples of restoration soils to demonstrate their suitability.

Thereafter, no restoration works shall take place except in accordance with the detailed final restoration scheme.

REASON: To ensure that the site is restored to a high standard in accordance with saved Policy GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005

40. Notwithstanding the aftercare proposals contained within chapter 7 of the Planning Application Statement (dated November 2017), no mineral extraction shall commence in phase 2 unless and until a detailed five-year aftercare scheme, incorporating an annual programme of management operations and tasks for the agricultural, nature conservation and amenity afteruse areas and management plans for the River Ouse and Blunham Disused Railway County Wildlife Sites, has been submitted to and approved in writing by the Local Planning Authority. The scheme as may be approved shall be carried out progressively and completed within 5 years of completion of restoration in each phase.

REASON: To ensure the satisfactory aftercare of the restored site in accordance with saved Policy GE27 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

41. An Annual Environmental Report (AER) shall be submitted to the Local Planning Authority by 31 March each year for the previous period from 1 January to 31 December. The report shall contain the following information:

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- * a statement of operations over the past year, to include progress on soil and overburden removal, mineral extraction in terms of tonnage of sales (categorised by building sand / concrete sand / gravel), tonnage of mineral reserves (categorised by building sand / concrete sand / gravel), restoration and a summary of monitoring results for noise, dust and the water environment;
- * details of tipping rates and remaining void space;
- * identification of any problem(s) caused by operations over the past year and any action(s) taken to address these;
- * a statement of planned operations over the forthcoming year;
- * identification of any potential problem(s) which may emerge as a result of planned operations over the forthcoming year and possible remedial action(s); and
- * the results of detailed soil surveys / audits from each period of soil stripping to determine the thickness of topsoil and subsoil, the boundary between different soil types and any consequent revisions to the volumes of temporary and long term bunds and restoration depths.

REASON: To facilitate monitoring and to assist the Local Planning Authority in the forward planning of mineral resources.

IMPORTANT PLEASE NOTE THE FOLLOWING ADVICE :-

Diverting and stopping-up Public Rights of Way: The grant of planning permission does not entitle the developer to obstruct a public right of way. It should not be assumed that because planning permission has been granted that an order under section 257 of the Town and Country Planning Act 1990 (as amended), for diversion or extinguishment of public footpath or bridleway, will invariably be made or confirmed. Development, insofar as it affects the legal line of a right of way, should not be started, and the right of way should be kept open for public use, unless or until the necessary order has come into effect.

The applicant is advised that in order to comply with condition 7 and 8 of this permission it will be necessary for the developer of the site to enter into an agreement with Bedford Borough Council as Highway Authority under section 278 of the Highways Act 1980 to ensure satisfactory completion of the access and associated road improvements. Further details can be obtained from the Senior Highways Agreements Officer, Engineering Services, Bedford Borough Council, Borough Hall, Bedford MK42 9AP (tel. 01234 276952). The applicant is advised that fees are applicable for the consent and approval processes and the aforementioned officer should be contacted at the earliest possible stage.

The applicant is advised that in order to comply with condition 10 of this permission it will be necessary for the developer of the site to secure a Traffic Regulation Order for a right turn ban. Further details can be obtained from the Senior Highways Agreements Officer, Engineering Services, Bedford Borough Council, Borough Hall, Bedford MK42 9AP (tel. 01234 276952). The applicant is advised that fees are applicable for the consultation, consent and approval processes and the aforementioned officer should be contacted at the earliest possible stage.

The applicant is advised that any badger sett closure will require an application for a licence to be granted by Natural England. Closure of any sett will need to be undertaken in full accordance with the terms and conditions of any such licence which may be issued.

A Flood Risk Activity Permit will need to be obtained from the Environment Agency prior to installation of the new bailey bridge crossing.

Informing Bedford Museum - Any archaeologist contacted to undertake archaeology work is requested to inform Bedford Museum at the earliest opportunity with a view to preparing and depositing the resulting archaeological site archive in accordance with the policy set out in "Preparing Archaeological Archives for Deposition with Registered Museums" (copies available from Bedford Museum, Castle Lane, Bedford MK40 3LD).

Upon implementation of this permission, the requirements of the consents covering the wider Dairy Farm area (refs. 16/00958/S73WM and 16/00959/S73WM) will be superseded in part.

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A Section 106 Agreement dated 17 May 2019 attaches to this permission.

STATEMENT REQUIRED BY THE TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015 - PART 6, ARTICLE 35: In determining this application the Local Planning Authority (LPA) has worked positively and proactively with the applicant by entering into pre-application discussions and encouraging community engagement which the applicant acceded to by presenting its proposals to local residents, parish councils and stakeholders at a public exhibition. The proposals and the content of the Environmental Statement have been assessed against the relevant development plan policies, National Planning Policy Framework and taking account of the LPA's Scoping Opinion and National Planning Practice Guidance. The LPA has identified all material considerations and has sought to resolve solutions to a number of technical issues raised through the consultation exercise. Additional information has been submitted under Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. A number of improvements to the scheme have been agreed. The applicant has been given advance sight of the draft planning conditions and the LPA has further engaged in the preparation of a draft legal agreement. This approach accords with the requirements set out in paragraph 38 of the Revised National Planning Policy Framework (2018).

The application was accompanied by an ENVIRONMENTAL IMPACT ASSESSMENT. In accordance with Regulations 26 and 29 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 the Authority hereby states that before granting planning permission it has first reached a reasoned conclusion on the significant effects of the proposed development on the environment taking into account the environmental information as defined by Regulation 2 of the same Regulations.

It is considered that the applicant has adequately assessed the potential impacts of the development in terms of ecology, landscape and visual effects, agriculture and soil resources, hydrology and hydrogeology, noise, dust, air quality, traffic and cultural heritage, all of which are topics covered in the Environmental Statement (ES). Mitigation measures have been incorporated into the design of the scheme together with more specific and detailed mitigation measures drawn from recommendations in the ES.

In terms of ecology the Authority concludes that through appropriate mitigation measures, secured by planning conditions, impacts on species and habitats can be reduced to acceptable levels taking into account the national importance attached to maintaining a steady supply of aggregate minerals. This decision is subject to a species monitoring and mitigation strategy in respect of otters, reptiles, badgers and breeding birds.

The Authority concludes that the overall landscape effects of the development are not significant, although there would be a temporary adverse impact due to landscape change whilst the site is in operation. The mature willows and woodland defining the edge of the River Ouse and Gadsey Brook would be preserved barring the loss of up to four trees to accommodate the bailey bridge crossing. A 'micro siting' approach has been agreed for the bailey bridge and connecting haul road to ensure a high standard of protection for valuable riverside trees and tree belts.

The phased working and restoration programme has been designed to ensure that all Best and Most Versatile (BMV) grade 3a soils are handled separately and are available in the correct sequence for use in the areas to be restored to agriculture. This decision is subject to a requirement for a detailed audit of the stripping areas in advance of each extraction phase and a regular check of soil volumes for restoration purposes.

In terms of water resources, the decision requires the implementation of a hydrometric monitoring scheme (HMS) which will allow the Authority to assess the operational effects of the development against the predicted effects in the ES.

The proposed noise mitigation measures, observing industry best practice and adherence to operating hours, indicate that the development can be carried out without causing unacceptable noise impacts. A c.2.5 metre-high screen bund is required along the initial section of internal access road to adequately reduce noise levels from HGVs at Cuckoo Brook House. This decision is subject to the implementation of a noise monitoring programme to demonstrate compliance with noise standards derived from the Minerals Planning Practice Guidance (PPG). This programme will include provision for additional mitigation measures to be introduced in the event that any exceedances are confirmed.

The dust impact risk at all residential receptors is judged to be negligible. At ecological receptors, the dust risk is determined to be low. A number of specific dust mitigation measures have been incorporated into site layout and phasing and site operations will need to be undertaken in line with standard industry best practice (e.g. use of water suppression in working areas). This decision is subject to a requirement for a detailed dust management plan, incorporating a monitoring regime with trigger limits for investigation and action. This will allow the Authority to assess the operational dust impacts against the predicted effects in the ES.

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In order to ensure that operational traffic would not have an unacceptable impact on the highway network, this decision includes a limit on morning peak HGV movements and an overall daily limit on HGV numbers along with a ban on right turning movements at the site exit through a Traffic Regulation Order. The site will be equipped with a CCTV system to enable effective monitoring of the entrance area.

The Scheduled Monuments on the site will be physically protected by retained low soil bunds and a condition requiring an updated mitigation strategy for the monuments is imposed. This approach has been endorsed by Historic England.

Please note the application has been determined with the following policies taken into consideration and any relevant supplementary planning guidance:

<i>Policy:</i> MWSP1	<i>Description:</i> Presumption in favour of sustainable dev	<i>Document:</i> Minerals and Waste Strategic Policies
<i>Policy:</i> MWSP2	<i>Description:</i> Climate Change	<i>Document:</i> Minerals and Waste Strategic Policies
<i>Policy:</i> MWSP3	<i>Description:</i> The determination of planning apps	<i>Document:</i> Minerals and Waste Strategic Policies
<i>Policy:</i> MSP1	<i>Description:</i> Overall Spatial Strategy for Agg S&G-SS	<i>Document:</i> Mineral Strategic Policies
<i>Policy:</i> MSP2	<i>Description:</i> The Provision of Aggregates	<i>Document:</i> Mineral Strategic Policies
<i>Policy:</i> WSP14	<i>Description:</i> Inert waste	<i>Document:</i> Waste Strategic Policies
<i>Policy:</i> WSP15	<i>Description:</i> New waste facilities/strategic transport	<i>Document:</i> Waste Strategic Policies
<i>Policy:</i> GE1	<i>Description:</i> Matters to be addressed in planning apps	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE4	<i>Description:</i> Environ improvement level /Ouse Valleys	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE6	<i>Description:</i> Protection best/most versatile agri land	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE9	<i>Description:</i> Landscape protection and Landscaping	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE10	<i>Description:</i> Protection/enhancement of trees/woodland	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE11	<i>Description:</i> Protection sites National nature conserv	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE12	<i>Description:</i> Protection of Locally designated sites	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE13	<i>Description:</i> Species/Habitat protection enhancement	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE14	<i>Description:</i> Archaeology	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE15	<i>Description:</i> Statute designated Historic builds/sites	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan

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Policy: GE16	Description: Local historic builds/environment/conser	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE17	Description: Pollution control	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE18	Description: Disturbance	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE19	Description: Flooding	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE20	Description: Water resources	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE21	Description: Public Rights of Way	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE23	Description: Transport suitability of local road netw	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE24	Description: Ancillary minerals and waste development	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE25	Description: Buffer zones	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE26	Description: Restoration	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE27	Description: Aftercare	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: NE04	Description: Retention trees, hedges, woodland	Document: Bedford Borough Local Plan
Policy: NE06	Description: Woodland	Document: Bedford Borough Local Plan
Policy: NE09	Description: Conservation Management Agreements	Document: Bedford Borough Local Plan
Policy: NE10	Description: Nature Conservation	Document: Bedford Borough Local Plan
Policy: NE12	Description: Early Landscaping	Document: Bedford Borough Local Plan
Policy: NE13	Description: Landscape Safeguards	Document: Bedford Borough Local Plan
Policy: NE16	Description: Flood Plain & Habitat Protection	Document: Bedford Borough Local Plan
Policy: NE20	Description: Landscape/environmental benefits	Document: Bedford Borough Local Plan
Policy: NE24	Description: Water Resources	Document: Bedford Borough Local Plan
Policy: BE21	Description: Setting of Listed Buildings	Document: Bedford Borough Local Plan
Policy: BE23	Description: Protection of Archaeology	Document: Bedford Borough Local Plan
Policy: BE24	Description: Protection of Ancient Monuments	Document: Bedford Borough Local Plan

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Policy: BE25	Description: Recording of Archaeology	Document: Bedford Borough Local Plan
Policy: BE26	Description: Historic Parks and Gardens	Document: Bedford Borough Local Plan
Policy: CP21	Description: Designing in quality	Document: Core Strategy & Rural Issues Plan
Policy: CP22	Description: Green infrastructure	Document: Core Strategy & Rural Issues Plan
Policy: CP23	Description: Heritage	Document: Core Strategy & Rural Issues Plan
Policy: CP24	Description: Landscape protection and enhancement	Document: Core Strategy & Rural Issues Plan
Policy: CP25	Description: Biodiversity	Document: Core Strategy & Rural Issues Plan
Policy: CP26	Description: Climate change and pollution	Document: Core Strategy & Rural Issues Plan
Policy: AD25	Description: Forest of Marston Vale	Document: Allocations and Designations Local Plan
Policy: AD23	Description: Bedford River Valley Park enabling devel	Document: Allocations and Designations Local Plan

***Please note the following are the approved plan(s) detail(s):
(To check if any further applications are approved/refused following this decision, please refer [here](#) for our Website and How to Guides)***

Plan type: Location Plan	Plan ref: 17-03-10-C	V No: v1	Received: 29-Nov-17
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-01-C	V No: v2a	Received: 19-Jun-18
Plan type: Site Layout as proposed	Plan ref: 17-03-12	V No: v8	Received: 29-Nov-17
Plan type: Technical Data	Plan ref: W16-LAN-020-A	V No: v9	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-021-A	V No: v10	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-022-A	V No: v11	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-023-A	V No: v12	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-024-A	V No: v13	Received: 26-Apr-18
Plan type: Bridges and Pathways	Plan ref: W16-LAN-025	V No: v14	Received: 29-Nov-17
Plan type: Technical Data	Plan ref: 17-03-09	V No: v15	Received: 29-Nov-17
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-07-B	V No: v19	Received: 26-Apr-18
Plan type: Topographical Survey	Plan ref: 17-03-00-B	V No: v16a	Received: 26-Apr-18
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-02-B	V No: v3a	Received: 26-Apr-18
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-03-B	V No: v4a	Received: 26-Apr-18
Plan type: Phasing Plan -	Plan ref: 17-03-04-B	V No: v5a	Received: 26-Apr-18

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Implementation of

Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-05-B	V No: v6a	Received: 26-Apr-18
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-06-B	V No: v7a	Received: 26-Apr-18
Plan type: Levels	Plan ref: 17-03-08-B	V No: v20	Received: 26-Apr-18
Plan type: Bridges and Pathways	Plan ref: EC03_4532_AIA_Bridge_V 01	V No: v21	Received: 26-Apr-18
Plan type: Topographical Survey	Plan ref: 18-01-01	V No: v22	Received: 26-Apr-18
Plan type: Road Details	Plan ref: 170104	V No: v18	Received: 26-Apr-18
Plan type: Proposed Site Layout Plan	Plan ref: 17178-01	V No: v17	Received: 26-Apr-18

Date Determined by Committee 23 July 2018

Where relevant, to amend or vary this permission or to discharge conditions please see How To Guide no 6 on www.bedford.gov.uk/searchplans or refer to www.planningportal.co.uk

Appeals: To make an appeal online go to <http://www.planningportal.gov.uk/planning/appeals/>. Alternatively to submit by post please contact the Planning Inspectorate Customer Support Team on 0303 444 5000 or email enquiries@pins.gsi.gov.uk to obtain paper forms and advice. **The applicant has a right to appeal against the Local Planning Authority's (LPA's) decision in accordance with the following:**

Householder and Minor Commercial Planning Applications	Other Planning Applications
12 weeks from the date of the decision notice.	6 months from the date of the decision notice, or 6 months from the expiry of the period which the LPA had to determine the application.
However, if an enforcement notice has been served for the same or very similar development the time limit is: 28 days from the date of the LPA decision if the enforcement notice was served before the decision was made yet not longer than 2 years before the application was made. 28 days from the date the enforcement notice was served if served on or after the date the decision was made (unless this extends the appeal period beyond 12 weeks). NB – if the LPA has failed to determine your householder planning application or you are appealing against the grant of permission subject to conditions to which you object, or your Householder application has an accompanying Listed Building application then please follow the time limits for Other Planning applications .	However, if an enforcement notice has been served for the same or very similar development within the previous 2 years, the time limit is: 28 days from the date of the LPA decision if the enforcement notice was served before the decision was made yet not longer than 2 years before the application was made. 28 days from the date the enforcement notice was served if served on or after the date the decision was made (unless this extends the appeal period beyond 6 months). NB – the LPA determination period is usually 8 weeks (13 weeks for major developments and 28 days for non-material amendment applications). If you have agreed a longer period with the LPA, the time limit runs from that date.

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SECRETARY OF STATE NOTIFICATION in accordance with of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended).

TOWN AND COUNTRY PLANNING ACT 1990

TOWN AND COUNTRY PLANNING GENERAL DEVELOPMENT PROCEDURE ORDER

APPLICATION NO: 17/03351/EIAWM Environmental Impact Assessment WM Application

To: Secretary of State
National Planning Casework Unit
5 St Philips Place
Birmingham
B3 2PW

Bedford Borough Council *HEREBY GRANTS PLANNING PERMISSION SUBJECT TO A LEGAL AGREEMENT* in accordance with: the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended), The Environmental Impact Assessment, the details on this notice including any conditions and the approved plans listed below.

APPLICANT : Breedon Southern Ltd

LOCATION : Land Either Side Of Willington Lock St Neots Road Bedford Bedfordshire

PARTICULARS OF DEVELOPMENT :

Extraction of sand and gravel; installation of mineral processing plant; construction of a quarry access onto St Neots Road; installation of a temporary access road crossing the River Ouse; and restoration of extraction area partly using imported inert material.

Failure to comply with the conditions overleaf may result in legal action. Please check these carefully as they may require the submission of and agreement to further details before any work commences.

PLEASE NOTE: This permission is granted under the Town and Country Planning Act 1990. It does NOT confer permission that may be required under any other legislation; e.g. the Building Regulations. Therefore, the applicant is advised to check the need for further authorisation before starting work.



Signed:

C Austin Director of Environment

Permission Date: 21 May 2019

Borough Hall,
Cauldwell Street, Bedford MK42 9AP
Telephone (01234) 267422 Fax (01234) 718084

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01. Planning permission shall extend to the site area delineated by a solid red line on the attached Plan no. 17/03351/EIAWM-1. The development hereby permitted shall be carried out in accordance with the particulars of the development, drawings and specifications contained within the planning application. The approved drawings and particulars comprise (except where modified by other conditions of this permission):

Documents:

- * Application form dated 23rd November 2017;
- * Planning Supporting Statement (dated November 2017);
- * SLR letter dated 19th April 2018 (ref. 407.06559.00008);
- * SLR e-mail and attachment dated 18th June 2018;
- * SLR e-mail and attachment dated 21st June 2018; and
- * the applicant's e-mail dated 5th July 2018.

Drawings (assuming gas pipeline removed):

- * Drawing no. 17-03-00 B (Topographical Survey);
- * Drawing no. 17-03-01 C (Site establishment);
- * Drawing no. 17-03-02 B (End of Phase 1);
- * Drawing no. 17-03-03 B (End of Phase 2);
- * Drawing no. 17-03-04 B (End of Phase 3);
- * Drawing no. 17-03-05 B (End of Phase 4);
- * Drawing no. 17-03-06 B (End of Phase 5 Restoration);
- * Drawing no. 17-03-07 B (End of Phase 6 Restoration);
- * Drawing no. 17-03-08 B (Final landform);
- * Drawing no. 17-03-09 (Borehole Location Plan)
- * Drawing no. 17-03-10 Rev C (Location Plan);
- * Drawing no. 17-03-12 (Processing plant layout);
- * Drawing no. 17178-01 (Proposed Site Layout – concrete plant);
- * Drawing ref. 170104 (Proposed New Site Access to St Neots Road Illustrative Layout);
- * Drawing no. EC03_4532_AIA_Bridge_V01 (Bridge Crossing Plan);
- * Drawing no. W16_LAN_020 Rev. A (Restoration Strategy);
- * Drawing no. W16_LAN_021 Rev A (Restoration Sections Option C); and
- * Drawing no. W16_LAN_025 (Proposed Bailey Bridge Crossing);

Drawings (assuming gas pipeline retained)

- * Drawing no. W16_LAN_022 Rev A (Restoration Strategy pipeline retained);
- * Drawing no. W16_LAN_023 Rev A (Restoration Sections pipeline retained); and
- * Drawing no. W16_LAN_024 Rev A (Existing Situation); and
- * Drawing no. 18-01-01 (Topographical Survey Revised Phases).

Any material change to the approved plans will require a formal planning application to vary this condition and any non-material change to the plans will require the submission of details and the agreement in writing by the Local Planning Authority prior to any non-material change being made.

REASON: To ensure the development is carried out in an acceptable manner, and to provide certainty on what is being authorised by this permission in accordance with advice contained in National Planning Practice Guidance (Use of Planning Conditions, Paragraph 022).

02. The development hereby permitted shall be begun not later than the expiration of 3 years from the date of this permission. Written notification of the date of commencement shall be sent to the Local Planning Authority within 7 days of such commencement.

REASON: To comply with section 91 of the Town and County Planning Act 1990 as amended by section 51 of the Planning and Compulsory Act 2004 and to enable the Local Planning Authority to monitor other conditions of this permission.

03. The mineral extraction hereby permitted shall cease within 4 years of commencement as notified to the Local Planning Authority pursuant to condition 2, and inert landfilling shall cease 30 months after the cessation of mineral extraction, the date of which shall be notified in writing to the Local Planning Authority. Final restoration and landscaping works, but excluding aftercare, shall be completed within 1 year of the date of cessation of inert landfilling

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REASON: To ensure that all operations are completed within an acceptable timescale and to prevent prolonged disturbance to the local environment in accordance with saved policies GE18 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

04. No soil stripping shall take place on the site unless and until an archaeological strategy for evaluation and if necessary, a further mitigation strategy based on the outcome of the evaluation have been submitted to and approved in writing by the Local Planning Authority. Should further mitigation be necessary, the archaeological mitigation strategy shall include the following components:

- * a method statement for the investigation of all archaeological remains present that will be destroyed by the development and/or a method statement for the preservation "in situ" of archaeological remains, including specific measures for the protection of the neighbouring scheduled monuments during the operation of the mineral plant site and during the course of restoration earthworks and monitoring of the scheduled monuments at the post-restoration stage;
- * a strategy for community engagement;
- * an outline strategy for post-excavation assessment, analysis and publication; and
- * a timetable for each stage of the archaeological works.

Development shall thereafter only be implemented in accordance with the archaeological scheme which shall be implemented in full.

REASON: To safeguard archaeological assets within the approved development boundary from impacts relating to any groundworks associated with the development scheme and to ensure the proper and timely preservation and/or investigation, recording, reporting and presentation of archaeological assets affected by this development, in accordance with saved Policies BE24 and BE25 of the Bedford Borough Local Plan 2002, Policy CP23 of the Bedford Borough Core Strategy and Rural Issues Plan 2008 and the NPPF.

05. Written notification of the date of completion of the archaeological fieldwork shall be sent to the Local Planning Authority within seven days of such completion. No soil stripping shall take place on the site unless and until the archaeological Post Excavation Assessment Report and Updated Project Design has been submitted to and approved in writing by the Local Planning Authority. The Post Excavation Assessment and Updated Project Design shall be submitted within 6 months of the notified date of completion of the archaeological fieldwork. The archaeological Post Excavation Assessment and Updated Project Design shall follow the parameters in the approved outline strategy for post-excavation assessment, analysis and publication.

REASON: To ensure that the record of archaeological fieldwork is made publicly available in accordance with paragraph 141 of the NPPF.

06. The archaeological post-excavation analysis (as specified in the Updated Project Design), the preparation of the site archive for deposition with a store approved by the Local Planning Authority, the completion of the archive report, and the submission of the publication report shall be undertaken within 2 years of the approval of the Updated Project Design.

REASON: To ensure that the record of archaeological fieldwork is made publicly available in accordance with paragraph 141 of the NPPF.

07. Access and egress for site traffic shall only be by way of the approved junction arrangement shown on drawing ref. 170104 (Proposed New Site Access to St Neots Road).

REASON: In order to minimise danger, obstruction and inconvenience to highway users in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002.

08. The site access hereby approved shall not be brought into use unless and until visibility splays have been provided at the junction of the access with the public highway as shown on drawing ref. 170104 (Proposed New Site Access to St Neots Road). The splay lines shall not be less than 4.5 metres measured along the centre line of the proposed access from its junction with the channel of the carriageway and not less than 215 metres measured from the centre line of the proposed access along the line of the nearside channel of the carriageway to the west and 160 metres to the east. Thereafter, all parts of the splays shall be kept free from obstructions above the adjacent carriageway level.

REASON: In the interests of highway safety in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002.

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09. No development authorised by this permission shall take place unless and until a scheme for the provision of junction warning / turning traffic signs has been submitted to and approved in writing by the Local Planning Authority. The site access hereby approved shall not be brought into use unless and until such scheme has been implemented in full in accordance with the approved details.

REASON FOR PRE-COMMENCEMENT CONDITION: In order to minimise danger, obstruction and inconvenience to highway users in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

10. No development authorised by this permission shall take place unless and until a scheme of measures to provide for the prevention of right turns out of the site and a timetable for implementation has been submitted to and approved in writing by the Local Planning Authority. The site access hereby approved shall not be brought into use unless and until such scheme has been implemented in accordance with the approved details and thereafter the scheme shall be complied with at all times.

REASON FOR PRE-COMMENCEMENT CONDITION: In the interests of highway safety and to ensure that HGVs avoid local villages and utilise the primary freight route network in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005, saved policy BE30 of the Bedford Borough Local Plan 2002 and the adopted Bedford Borough Freight Strategy 2011-2021. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

11. The number of Heavy Goods Vehicle (HGV) movements into / out of the site shall be limited to a maximum of 260 per working day (pro rata for part working days), with no more than 40 HGV movements per hour during the peak morning period of 0700 to 0900 hours. A daily log of HGV movements shall be maintained at all times and shall be made available for inspection by the Local Planning Authority within 7 calendar days of any written request. (For the purposes of this condition, a HGV means a vehicle above a gross weight of 7.5 tonnes and a single HGV entering and leaving the site equals two movements).

REASON: In the interests of highway safety in accordance with saved policy GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and saved policy BE30 of the Bedford Borough Local Plan 2002.

12. No development authorised by this permission shall take place unless and until a scheme for monitoring of the site entrance area by CCTV camera installation has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall include details of:
- * the columns and types of cameras to be used;
 - * the coverage of the cameras; and
 - * provision for the Local Planning Authority to remotely access live and recorded footage.

The scheme as may be approved shall be implemented in full prior to the export of sand and gravel from the site and thereafter the scheme shall be complied with at all times.

REASON FOR PRE-COMMENCEMENT CONDITION: To allow the monitoring of conditions 10 ,11, 13 and 30 in accordance with saved Policies GE18 and GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

13. No operations or activities authorised by this permission, including traffic entering and leaving the site, shall take place outside the hours specified below:

0700 hours to 1800 hours Mondays to Fridays
0700 hours to 1300 hours Saturdays

and no such operations or activities shall take place on Sundays or Public / Bank Holidays.

REASON: To minimise disturbance at nearby properties by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

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14. No operations shall take place except in accordance with the phasing sequence shown on drawing nos. 17-03-00B, 17-03-01 C, 17-03-02 B, 17-03-03 B, 17-03-04 B, 17-03-05 B, 17-03-06 B, 17-03-07 B and 17-03-08 B except as may be modified by details subsequently submitted to discharge the requirements of other conditions of this permission. Entry into phases 3 and 4 shall be subject to the prior written agreement of the Local Planning Authority, which shall be dependent upon progress having been made with restoration in the preceding phases in accordance with the approved phasing sequence. In the event that the high-pressure gas pipeline along the former railway line corridor is not diverted, the limits of extraction in each phase and proposed crossing point of the haul road, pipeline and National Cycle Route 51 shall be in accordance with the details shown on drawing no. 18-01-01.

REASON: To ensure a satisfactory and orderly programme of working and restoration of the site within a reasonable timescale and to minimise the amount of disturbed land at any one time in accordance and to safeguard the amenities of the surrounding area in accordance with saved Policies M6, GE18 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

15. No soil stripping shall take place unless and until a detailed scheme for the installation of crossing points to protect the integrity of any underlying pipelines and access arrangements for crossing the Cuckoo Brook has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the scheme as may be approved shall be implemented in full and complied with at all times.

REASON: To clarify operational arrangements in accordance with saved Policy GE1 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

16. The mineral plant site hereby permitted shall not be used for the stockpiling and processing of sand and gravel won from outside the application site. All structures, machinery, equipment and foundations forming the sand and gravel processing plant and concrete batching plant shall be removed from the site within 12 months of the date of cessation of mineral extraction.

REASON: To restrict development to that applied for and to ensure the timely removal of the mineral processing plant.

17. No development authorised by this permission shall take place unless and until a site specific Arboricultural Method Statement (AMS), incorporating a Tree Protection Plan, has been submitted to and approved in writing by the Local Planning Authority. The AMS shall include details of and provision for:

- * measures for the safeguarding of trees and shrubs throughout the operational period, including root and crown protection of trees, shrubs and hedgerows;
- * proposals for detailed siting of the bailey bridge in order to minimise arboricultural and ecological impacts based on a detailed assessment of the engineering requirements of the crossing;
- * the precise alignment and width of the internal haul road linking the extraction land to the mineral plant site, the overall corridor of disturbance resulting from those works and appropriate standoffs to be adopted to protect tree belts and other vegetation alongside the River Ouse, Gadsey Brook and Cuckoo Brook;
- * installation of any temporary ground protection;
- * groundworks and foundations;
- * installation of any new hard surfacing (materials, design constraints, implications for levels);
- * a schedule of works to trees, shrubs and hedgerows; and
- * a schedule of specific events requiring input or arboricultural supervision and monitoring and compliance.

Thereafter, no development shall be carried out except in accordance with the approved AMS and approved protection measures shall be retained for the operational life of the site.

REASON FOR PRE-COMMENCEMENT CONDITION: To safeguard the health of existing trees, shrubs and hedgerows on or adjacent to the site for the duration of site operations in the interests of visual amenity and to minimise impacts on ecological receptors in accordance with saved Policies GE9, GE10, GE12 and GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

18. No development shall take place unless and until a monitoring and mitigation strategy for otters, reptiles, badgers and breeding birds, to include details of timings and phasing through the operational life of the site, has been submitted to and approved in writing by the Local Planning Authority. The monitoring and mitigation strategy as may be approved shall thereafter be implemented in full and complied with at all times.

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REASON: To safeguard any protected or rare species that may be present in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

19. No felling or removal of limbs from mature trees shall take place unless and until a re-checking survey for roosting bats has first been undertaken by a licensed bat ecologist. Should the species be found to be present, an appropriate compensation / mitigation strategy accompanied by a programme for its implementation shall have been submitted to and approved in writing by the Local Planning Authority before any such tree works commence. Thereafter, no development shall be carried out except in accordance with the approved strategy.

REASON: To safeguard any protected or rare species that may be present in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

20. No tree, shrub, scrub or other vegetation removal shall be carried out during the bird nesting season (March to August inclusive) unless the vegetation identified for removal has been immediately prior checked by an appropriately qualified ecologist and appropriate advance measures put in place to afford necessary protection to the written approval of the Local Planning Authority.

REASON: To safeguard nesting birds in the interests of nature conservation in accordance with saved Policy GE13 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

21. Soils shall not be handled and managed except in accordance with mitigation measures detailed in section 8.2.3 of the Planning Application Statement (dated November 2017) and item 3 of SLR's letter dated 19th April 2018. Soil handling and soil movements shall not be carried out except between the months of October to March inclusive unless the prior written approval of the Local Planning Authority has been obtained.

REASON: To protect the soil resource and soil structure and to ensure regular auditing of soil volumes in accordance with saved Policy GE6 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

22. Bunds for the storage of soils shall conform to the following criteria:

- * topsoil bunds shall not exceed 3 metres in height and subsoil bunds shall not exceed 5 metres in height; and
- * the outer face of all soil bunds shall have a gradient not exceeding 1V: 4H.

REASON: To prevent loss or damage to soils needed to achieve a high standard of restoration in accordance with saved Policies GE6 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

23. All soil storage bunds identified to remain in situ for more than 6 months or over the winter period shall be grassed over and weed control and other necessary maintenance carried out.

REASON: To prevent loss or damage to soils needed to achieve a high standard of restoration and to ensure bunds maintain a tidy appearance in accordance with saved Policies GE6, GE9 and GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

24. Except during periods of temporary works, the level of noise attributable to any operations or activities authorised by this permission shall not exceed the following limits at the residential receptors listed below when expressed as a free-field LAeq, 1 hr:

- * 54dB at the residential boundary of Cuckoo Brook House;
- * 54dB at the residential boundary of Gadsey Brook Cottage;
- * 54dB at the residential boundary of Hill Farm House;
- * 53dB at the residential boundary of Mill Farm;
- * 55dB at the residential boundary of Willowhill Farm;
- * 45dB at the residential boundary of Old Mills Cottage;
- * 45dB at Chapel Lane, Willington; and
- * 55dB or 10dB(A) above background noise level (LA90, 1hr), whichever is the lower, at the boundary of any other occupied residential property within the vicinity of the site.

REASON: To minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and Minerals Planning Practice Guidance.

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25. The level of noise attributable to temporary works authorised by this permission (i.e. bund construction and removal, soil stripping and final restoration), shall not exceed 70dB, when expressed as a free-field LAeq, 1 hr, at the boundary of any occupied residential property in the vicinity of the site. Temporary works shall not exceed a period of eight weeks in any calendar year.

REASON: To minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005 and Minerals Planning Practice Guidance.

26. No development authorised by this permission shall take place unless and until a scheme for the monitoring and control of noise from the operational site has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall include and provide for:

- * noise monitoring and recording procedures;
- * presentation of monitoring results to the Local Planning Authority; and
- * procedures to be adopted in the event of complaints or the maximum permitted noise levels referred to in condition 24 being exceeded, including the introduction of additional mitigation measures, where necessary, following investigation of the exceedance or complaint.

Thereafter, the scheme as may be approved shall be implemented in full and complied with at all times.

REASON FOR PRE-COMMENCEMENT CONDITION: To enable the impact of operational noise to be monitored and controlled and to enable mitigation steps to be devised where necessary so as to minimise nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

27. No on-site plant, equipment and the applicant's fleet of Heavy Goods Vehicles (HGVs) shall utilise tonal reversing alarms.

REASON: To enable the Local Planning Authority to exercise control over activities that may cause nuisance to nearby residents by reason of noise in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

28. The site access hereby approved shall not be brought into use unless and until a noise attenuation bund has been constructed on the north side of the internal access road in accordance with details that have first been submitted to and approved in writing by the Local Planning Authority. Such submission shall be supported by calculations of the predicted level of attenuation at the nearest residential receptor. The bund as may be approved shall be retained throughout the period of mineral exportation and inert waste importation.

REASON: To minimise nuisance to nearby residents by reason of noise impacts from HGVs travelling on the initial section of the access road off St Neots Road in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

29. Notwithstanding the dust mitigation measures set out in section 8.2.6 of the Planning Application Statement (dated November 2017), no soil stripping shall take place on site unless and until a Dust Mitigation Plan (DMP) has been submitted to and approved in writing by the Local Planning Authority. The submission shall accord with the recommended content for a DMP as set out in guidance issued by the Institute of Air Quality Management (Appendix 6 of 'Guidance on the Assessment of Mineral Dust Impacts for Planning' - May 2016). Thereafter, the DMP as may be approved shall be implemented in full and complied with at all times.

REASON: To ensure that dust impacts associated with the operation of the development are minimised in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

30. No development authorised by this permission shall take place unless and until a comprehensive scheme of site management procedures for preventing the carriage of sand, mud, debris and other extraneous materials onto the public highway has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall also include details of the construction design of the loop based internal access road and associated drainage system and the materials to be used in the formation of the durable haul track from the mineral plant site to the Bailey bridge. Such scheme as may be approved shall be implemented in full and complied with at all times.

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REASON FOR PE-COMMENCEMENT CONDITION: In order to minimise danger, obstruction and inconvenience to users of the highway in accordance with saved Policies GE18 and GE23 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. (The Local Planning Authority is satisfied that the timing of compliance is fundamental to the development permitted and that the permission ought to be refused unless the condition is imposed in this form).

31. No loaded Heavy Goods Vehicles (HGVs) shall leave the site unsheeted.

REASON: To prevent the deposit of sand, mud and debris on the highway in the interests of highway safety and local amenity in accordance with saved Policy GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

32. No waste materials other than inert waste shall be imported to and deposited on the site.

REASON: For the avoidance of doubt and to prevent pollution in accordance with saved Policy GE17 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

33. No de-watering operations shall be undertaken on the site unless and until a Hydrometric Monitoring Scheme (HMS) has been submitted to and approved in writing by the Local Planning Authority. The HMS shall provide for monitoring and mitigation of impacts on the water environment in accordance with the recommendations set out in paragraphs (i) to (viii) of section 8.2.4 of the Planning Application Statement (dated November 2017) and Table 9-16 of the Environmental Statement Volume 1 (dated November 2017). The HMS shall cover all on-site boreholes and groundwater level and lake level monitoring points as identified in chapter 9 of the Environmental Statement Volume 1 (dated November 2017), make provision for baseline monitoring of off-site locations and include a commitment to submit an annual monitoring report to the Local Planning Authority for the full duration of the scheme. Thereafter, the HMS as may be approved shall be implemented in full and complied with at all times.

REASON: To ensure the development does not harm the water environment in accordance with paragraph 109 of the NPPF and saved Policies GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005. The scheme is intended to secure de-watering of the site, an acceptable means of water supply, protection of groundwater dependant terrestrial systems and the protection of groundwater dependent abstractions.

34. No de-watering operations shall be undertaken on the site unless and until a monitoring and maintenance plan in respect of water quality has been submitted to and approved in writing by the Local Planning Authority. Such plan shall include a monitoring programme and timetable for submission of monitoring reports to the Local Planning Authority. The submitted reports shall contain details of any necessary contingency actions arising from the monitoring. The plan as may be approved shall be implemented and complied with at all times.

REASON: To ensure that the site does not pose any further risk to the water environment by managing any ongoing issues and ensuring the completion of any necessary long-term remediation measures in accordance with paragraph 109 of the NPPF.

35. If, during the carrying out of the development hereby permitted, contamination not previously identified is found to be present then all operations shall cease (unless otherwise agreed in writing by the Local Planning Authority) and shall not resume until a remediation strategy detailing how the unsuspected contamination shall be dealt with has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the remediation strategy shall be implemented as approved and complied with at all times.

REASON: To protect and prevent pollution of controlled waters from potential pollutants associated with current and previous land uses (in particular the disused railway embankment) in accordance with paragraphs 109, 120 and 121 of the NPPF and saved Policy GE19 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

36. Throughout the operational period of the development, no surface water run-off shall be discharged into any watercourse or soakaway unless it has passed through a settlement facility or settlement facilities. Such facility or facilities shall be retained and maintained until the completion of operations.

REASON: To protect water quality and biodiversity in accordance with saved Policies GE12, GE17 and GE20 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

37. The concrete batching plant hereby approved shall be finished in a dark green colour to BS 4800 12 B 29 and maintained as such for the life of the development.

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REASON: In the interests of visual amenity and to comply with Saved Policy GE9 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005, Policy CP21 of the Bedford Borough Core Strategy and Rural Issues Plan 2008 and saved Policy BE30 of the Bedford Borough Local Plan 2002.

38. No fixed lighting shall be used on site except in accordance with the details set out in item 12 of SLR's letter dated 19h April 2018. All lighting shall be turned off outside the operational hours hereby permitted (except where activated by a movement sensor).

REASON: To minimise the visual impact of the development during the hours of darkness in accordance with saved Policies GE9 and GE18 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

39. Notwithstanding the approved restoration strategies shown on drawing nos. W16_LAN_020 Rev A (pipeline diverted) and W16_LAN_022 Rev. A (pipeline retained), no mineral extraction shall commence in phase 2 unless and until a detailed final restoration scheme, accompanied by drawings at a scale of 1:500, has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall be in broad accordance with the restoration strategies, but shall additionally show or provide for:

- final restoration contours at 0.5 metre intervals for the whole of the Dairy Farm area of the site;
- proposals for removal of buildings, structures, fixed plant and machinery, St Neots Road access, internal access roads, car parks, hardstandings, foundations, culverts and pipeline crossing points and the satisfactory reinstatement of affected areas;
- proposals for final spreading of subsoil and topsoil bunds to restore the mineral plant site area having regard to the existing approved soil handling scheme for the wider Dairy Farm site (ref. 17/01931/AOC);
- engineered land drainage for the restored mineral extraction land;
- layout and positioning of stockproof fencing and gates;
- extension of the conservation headland along the south bank of the River Ouse through the extraction stand-off margin;
- establishment of a further small wooded copse in the north-east corner of the wet grassland area;
- proposed planting matrices;
- realignment of the northern edge of the triangular woodland to better relate to changes in contours;
- planting layouts which do not cause interference to the gas pipeline and pylons and overhead power lines; and
- a method statement for the re-creation of the neutral grassland and lowland meadow habitats within the Blunham Disused Railway County Wildlife Site (if applicable) covering:

- * proposals for retention, stockpiling and subsequent re-use of existing on-site soil resources along the former railway line embankment;
- * establishment of a suitable substrate to a minimum depth of 250mm to sustain the desired habitats and how restoration soils will be sourced and tested;
- * the scope of any ameliorative work, established via soil testing, in order to identify any incoming soils that require treatment; and
- * presentation of results of laboratory testing of samples of restoration soils to demonstrate their suitability.

Thereafter, no restoration works shall take place except in accordance with the detailed final restoration scheme.

REASON: To ensure that the site is restored to a high standard in accordance with saved Policy GE26 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005

40. Notwithstanding the aftercare proposals contained within chapter 7 of the Planning Application Statement (dated November 2017), no mineral extraction shall commence in phase 2 unless and until a detailed five-year aftercare scheme, incorporating an annual programme of management operations and tasks for the agricultural, nature conservation and amenity afteruse areas and management plans for the River Ouse and Blunham Disused Railway County Wildlife Sites, has been submitted to and approved in writing by the Local Planning Authority. The scheme as may be approved shall be carried out progressively and completed within 5 years of completion of restoration in each phase.

REASON: To ensure the satisfactory aftercare of the restored site in accordance with saved Policy GE27 of the Bedfordshire & Luton Minerals & Waste Local Plan 2005.

41. An Annual Environmental Report (AER) shall be submitted to the Local Planning Authority by 31 March each year for the previous period from 1 January to 31 December. The report shall contain the following information:

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- * a statement of operations over the past year, to include progress on soil and overburden removal, mineral extraction in terms of tonnage of sales (categorised by building sand / concrete sand / gravel), tonnage of mineral reserves (categorised by building sand / concrete sand / gravel), restoration and a summary of monitoring results for noise, dust and the water environment;
- * details of tipping rates and remaining void space;
- * identification of any problem(s) caused by operations over the past year and any action(s) taken to address these;
- * a statement of planned operations over the forthcoming year;
- * identification of any potential problem(s) which may emerge as a result of planned operations over the forthcoming year and possible remedial action(s); and
- * the results of detailed soil surveys / audits from each period of soil stripping to determine the thickness of topsoil and subsoil, the boundary between different soil types and any consequent revisions to the volumes of temporary and long term bunds and restoration depths.

REASON: To facilitate monitoring and to assist the Local Planning Authority in the forward planning of mineral resources.

IMPORTANT PLEASE NOTE THE FOLLOWING ADVICE :-

Diverting and stopping-up Public Rights of Way: The grant of planning permission does not entitle the developer to obstruct a public right of way. It should not be assumed that because planning permission has been granted that an order under section 257 of the Town and Country Planning Act 1990 (as amended), for diversion or extinguishment of public footpath or bridleway, will invariably be made or confirmed. Development, insofar as it affects the legal line of a right of way, should not be started, and the right of way should be kept open for public use, unless or until the necessary order has come into effect.

The applicant is advised that in order to comply with condition 7 and 8 of this permission it will be necessary for the developer of the site to enter into an agreement with Bedford Borough Council as Highway Authority under section 278 of the Highways Act 1980 to ensure satisfactory completion of the access and associated road improvements. Further details can be obtained from the Senior Highways Agreements Officer, Engineering Services, Bedford Borough Council, Borough Hall, Bedford MK42 9AP (tel. 01234 276952). The applicant is advised that fees are applicable for the consent and approval processes and the aforementioned officer should be contacted at the earliest possible stage.

The applicant is advised that in order to comply with condition 10 of this permission it will be necessary for the developer of the site to secure a Traffic Regulation Order for a right turn ban. Further details can be obtained from the Senior Highways Agreements Officer, Engineering Services, Bedford Borough Council, Borough Hall, Bedford MK42 9AP (tel. 01234 276952). The applicant is advised that fees are applicable for the consultation, consent and approval processes and the aforementioned officer should be contacted at the earliest possible stage.

The applicant is advised that any badger sett closure will require an application for a licence to be granted by Natural England. Closure of any sett will need to be undertaken in full accordance with the terms and conditions of any such licence which may be issued.

A Flood Risk Activity Permit will need to be obtained from the Environment Agency prior to installation of the new bailey bridge crossing.

Informing Bedford Museum - Any archaeologist contacted to undertake archaeology work is requested to inform Bedford Museum at the earliest opportunity with a view to preparing and depositing the resulting archaeological site archive in accordance with the policy set out in "Preparing Archaeological Archives for Deposition with Registered Museums" (copies available from Bedford Museum, Castle Lane, Bedford MK40 3LD).

Upon implementation of this permission, the requirements of the consents covering the wider Dairy Farm area (refs. 16/00958/S73WM and 16/00959/S73WM) will be superseded in part.

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A Section 106 Agreement dated 17 May 2019 attaches to this permission.

STATEMENT REQUIRED BY THE TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015 - PART 6, ARTICLE 35: In determining this application the Local Planning Authority (LPA) has worked positively and proactively with the applicant by entering into pre-application discussions and encouraging community engagement which the applicant acceded to by presenting its proposals to local residents, parish councils and stakeholders at a public exhibition. The proposals and the content of the Environmental Statement have been assessed against the relevant development plan policies, National Planning Policy Framework and taking account of the LPA's Scoping Opinion and National Planning Practice Guidance. The LPA has identified all material considerations and has sought to resolve solutions to a number of technical issues raised through the consultation exercise. Additional information has been submitted under Regulation 25 of the Town and Country Planning (Environmental Impact assessment) Regulations 2017. A number of improvements to the scheme have been agreed. The applicant has been given advance sight of the draft planning conditions and the LPA has further engaged in the preparation of a draft legal agreement. This approach accords with the requirements set out in paragraph 38 of the Revised National Planning Policy Framework (2018).

The application was accompanied by an ENVIRONMENTAL IMPACT ASSESSMENT. In accordance with Regulations 26 and 29 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 the Authority hereby states that before granting planning permission it has first reached a reasoned conclusion on the significant effects of the proposed development on the environment taking into account the environmental information as defined by Regulation 2 of the same Regulations.

It is considered that the applicant has adequately assessed the potential impacts of the development in terms of ecology, landscape and visual effects, agriculture and soil resources, hydrology and hydrogeology, noise, dust, air quality, traffic and cultural heritage, all of which are topics covered in the Environmental Statement (ES). Mitigation measures have been incorporated into the design of the scheme together with more specific and detailed mitigation measures drawn from recommendations in the ES.

In terms of ecology the Authority concludes that through appropriate mitigation measures, secured by planning conditions, impacts on species and habitats can be reduced to acceptable levels taking into account the national importance attached to maintaining a steady supply of aggregate minerals. This decision is subject to a species monitoring and mitigation strategy in respect of otters, reptiles, badgers and breeding birds.

The Authority concludes that the overall landscape effects of the development are not significant, although there would be a temporary adverse impact due to landscape change whilst the site is in operation. The mature willows and woodland defining the edge of the River Ouse and Gadsey Brook would be preserved barring the loss of up to four trees to accommodate the bailey bridge crossing. A 'micro siting' approach has been agreed for the bailey bridge and connecting haul road to ensure a high standard of protection for valuable riverside trees and tree belts.

The phased working and restoration programme has been designed to ensure that all Best and Most Versatile (BMV) grade 3a soils are handled separately and are available in the correct sequence for use in the areas to be restored to agriculture. This decision is subject to a requirement for a detailed audit of the stripping areas in advance of each extraction phase and a regular check of soil volumes for restoration purposes.

In terms of water resources, the decision requires the implementation of a hydrometric monitoring scheme (HMS) which will allow the Authority to assess the operational effects of the development against the predicted effects in the ES.

The proposed noise mitigation measures, observing industry best practice and adherence to operating hours, indicate that the development can be carried out without causing unacceptable noise impacts. A c.2.5 metre-high screen bund is required along the initial section of internal access road to adequately reduce noise levels from HGVs at Cuckoo Brook House. This decision is subject to the implementation of a noise monitoring programme to demonstrate compliance with noise standards derived from the Minerals Planning Practice Guidance (PPG). This programme will include provision for additional mitigation measures to be introduced in the event that any exceedances are confirmed.

The dust impact risk at all residential receptors is judged to be negligible. At ecological receptors, the dust risk is determined to be low. A number of specific dust mitigation measures have been incorporated into site layout and phasing and site operations will need to be undertaken in line with standard industry best practice (e.g. use of water suppression in working areas). This decision is subject to a requirement for a detailed dust management plan, incorporating a monitoring regime with trigger limits for investigation and action. This will allow the Authority to assess the operational dust impacts against the predicted effects in the ES.

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In order to ensure that operational traffic would not have an unacceptable impact on the highway network, this decision includes a limit on morning peak HGV movements and an overall daily limit on HGV numbers along with a ban on right turning movements at the site exit through a Traffic Regulation Order. The site will be equipped with a CCTV system to enable effective monitoring of the entrance area.

The Scheduled Monuments on the site will be physically protected by retained low soil bunds and a condition requiring an updated mitigation strategy for the monuments is imposed. This approach has been endorsed by Historic England.

Please note the application has been determined with the following policies taken into consideration and any relevant supplementary planning guidance:

<i>Policy:</i> MWSP1	<i>Description:</i> Presumption in favour of sustainable dev	<i>Document:</i> Minerals and Waste Strategic Policies
<i>Policy:</i> MWSP2	<i>Description:</i> Climate Change	<i>Document:</i> Minerals and Waste Strategic Policies
<i>Policy:</i> MWSP3	<i>Description:</i> The determination of planning apps	<i>Document:</i> Minerals and Waste Strategic Policies
<i>Policy:</i> MSP1	<i>Description:</i> Overall Spatial Strategy for Agg S&G-SS	<i>Document:</i> Mineral Strategic Policies
<i>Policy:</i> MSP2	<i>Description:</i> The Provision of Aggregates	<i>Document:</i> Mineral Strategic Policies
<i>Policy:</i> WSP14	<i>Description:</i> Inert waste	<i>Document:</i> Waste Strategic Policies
<i>Policy:</i> WSP15	<i>Description:</i> New waste facilities/strategic transport	<i>Document:</i> Waste Strategic Policies
<i>Policy:</i> GE1	<i>Description:</i> Matters to be addressed in planning apps	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE4	<i>Description:</i> Environ improvement level /Ouse Valleys	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE6	<i>Description:</i> Protection best/most versatile agri land	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE9	<i>Description:</i> Landscape protection and Landscaping	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE10	<i>Description:</i> Protection/enhancement of trees/woodland	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE11	<i>Description:</i> Protection sites National nature conserv	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE12	<i>Description:</i> Protection of Locally designated sites	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE13	<i>Description:</i> Species/Habitat protection enhancement	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE14	<i>Description:</i> Archaeology	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan
<i>Policy:</i> GE15	<i>Description:</i> Statute designated Historic builds/sites	<i>Document:</i> Bedfordshire and Luton Minerals and Waste Local Plan

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Policy: GE16	Description: Local historic builds/environment/conser	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE17	Description: Pollution control	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE18	Description: Disturbance	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE19	Description: Flooding	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE20	Description: Water resources	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE21	Description: Public Rights of Way	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE23	Description: Transport suitability of local road netw	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE24	Description: Ancillary minerals and waste development	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE25	Description: Buffer zones	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE26	Description: Restoration	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: GE27	Description: Aftercare	Document: Bedfordshire and Luton Minerals and Waste Local Plan
Policy: NE04	Description: Retention trees, hedges, woodland	Document: Bedford Borough Local Plan
Policy: NE06	Description: Woodland	Document: Bedford Borough Local Plan
Policy: NE09	Description: Conservation Management Agreements	Document: Bedford Borough Local Plan
Policy: NE10	Description: Nature Conservation	Document: Bedford Borough Local Plan
Policy: NE12	Description: Early Landscaping	Document: Bedford Borough Local Plan
Policy: NE13	Description: Landscape Safeguards	Document: Bedford Borough Local Plan
Policy: NE16	Description: Flood Plain & Habitat Protection	Document: Bedford Borough Local Plan
Policy: NE20	Description: Landscape/environmental benefits	Document: Bedford Borough Local Plan
Policy: NE24	Description: Water Resources	Document: Bedford Borough Local Plan
Policy: BE21	Description: Setting of Listed Buildings	Document: Bedford Borough Local Plan
Policy: BE23	Description: Protection of Archaeology	Document: Bedford Borough Local Plan
Policy: BE24	Description: Protection of Ancient Monuments	Document: Bedford Borough Local Plan

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Policy: BE25	Description: Recording of Archaeology	Document: Bedford Borough Local Plan
Policy: BE26	Description: Historic Parks and Gardens	Document: Bedford Borough Local Plan
Policy: CP21	Description: Designing in quality	Document: Core Strategy & Rural Issues Plan
Policy: CP22	Description: Green infrastructure	Document: Core Strategy & Rural Issues Plan
Policy: CP23	Description: Heritage	Document: Core Strategy & Rural Issues Plan
Policy: CP24	Description: Landscape protection and enhancement	Document: Core Strategy & Rural Issues Plan
Policy: CP25	Description: Biodiversity	Document: Core Strategy & Rural Issues Plan
Policy: CP26	Description: Climate change and pollution	Document: Core Strategy & Rural Issues Plan
Policy: AD25	Description: Forest of Marston Vale	Document: Allocations and Designations Local Plan
Policy: AD23	Description: Bedford River Valley Park enabling devel	Document: Allocations and Designations Local Plan

***Please note the following are the approved plan(s) detail(s):
(If any further amendments are approved/refused following this decision you will need to check on our Website or contact the Local Planning Authority for details)***

Plan type: Location Plan	Plan ref: 17-03-10-C	V No: v1	Received: 29-Nov-17
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-01-C	V No: v2a	Received: 19-Jun-18
Plan type: Site Layout as proposed	Plan ref: 17-03-12	V No: v8	Received: 29-Nov-17
Plan type: Technical Data	Plan ref: W16-LAN-020-A	V No: v9	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-021-A	V No: v10	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-022-A	V No: v11	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-023-A	V No: v12	Received: 26-Apr-18
Plan type: Technical Data	Plan ref: W16-LAN-024-A	V No: v13	Received: 26-Apr-18
Plan type: Bridges and Pathways	Plan ref: W16-LAN-025	V No: v14	Received: 29-Nov-17
Plan type: Technical Data	Plan ref: 17-03-09	V No: v15	Received: 29-Nov-17
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-07-B	V No: v19	Received: 26-Apr-18
Plan type: Topographical Survey	Plan ref: 17-03-00-B	V No: v16a	Received: 26-Apr-18
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-02-B	V No: v3a	Received: 26-Apr-18
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-03-B	V No: v4a	Received: 26-Apr-18
Plan type: Phasing Plan -	Plan ref: 17-03-04-B	V No: v5a	Received: 26-Apr-18

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Implementation of

Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-05-B	V No: v6a	Received: 26-Apr-18
Plan type: Phasing Plan - Implementation of	Plan ref: 17-03-06-B	V No: v7a	Received: 26-Apr-18
Plan type: Levels	Plan ref: 17-03-08-B	V No: v20	Received: 26-Apr-18
Plan type: Bridges and Pathways	Plan ref: EC03_4532_AIA_Bridge_V 01	V No: v21	Received: 26-Apr-18
Plan type: Topographical Survey	Plan ref: 18-01-01	V No: v22	Received: 26-Apr-18
Plan type: Road Details	Plan ref: 170104	V No: v18	Received: 26-Apr-18
Plan type: Proposed Site Layout Plan	Plan ref: 17178-01	V No: v17	Received: 26-Apr-18

Date Determined by Committee 23 July 2018

Appeals: To make an appeal online go to <http://www.planningportal.gov.uk/planning/appeals/>. Alternatively to submit by post please contact the Planning Inspectorate Customer Support Team on 0303 444 5000 or email enquiries@pins.gsi.gov.uk to obtain paper forms and advice. **The applicant has a right to appeal against the Local Planning Authority's (LPA's) decision in accordance with the following:**

Householder / Minor Commercial Planning Applications	Other Planning Applications
12 weeks from the date of the decision notice.	6 months from the date of the decision notice, or 6 months from the expiry of the period which the LPA had to determine the application.
However, if an enforcement notice has been served for the same or very similar development the time limit is: 28 days from the date of the LPA decision if the enforcement notice was served before the decision was made yet not longer than 2 years before the application was made. 28 days from the date the enforcement notice was served if served on or after the date the decision was made (unless this extends the appeal period beyond 12 weeks). NB – if the LPA has failed to determine your householder planning application or you are appealing against the grant of permission subject to conditions to which you object, or your Householder application has an accompanying Listed Building application then please follow the time limits for Other Planning applications .	However, if an enforcement notice has been served for the same or very similar development within the previous 2 years, the time limit is: 28 days from the date of the LPA decision if the enforcement notice was served before the decision was made yet not longer than 2 years before the application was made. 28 days from the date the enforcement notice was served if served on or after the date the decision was made (unless this extends the appeal period beyond 6 months). NB – the LPA determination period is usually 8 weeks (13 weeks for major developments and 28 days for non-material amendment applications). If you have agreed a longer period with the LPA, the time limit runs from that date.

OFFICER REPORT The Officer Report is for information and does not form part of the Decision Notice Please note this report may have been updated at the Committee meeting. Please refer to the file online at www.bedford.gov.uk/searchplans where you can also find a link to the Planning Committee page and view any relevant minutes.

SITE DESCRIPTION and PROPOSED DEVELOPMENT

SITE DESCRIPTION:

The application site extends to 57.5 hectares overall and straddles a stretch of the River Ouse some 10 to 12 metres-wide. The southern portion, within Central Bedfordshire, comprises some 31.9 hectares at Willington Lock. The northern portion occupies some 25.9 hectares within Bedford Borough and consists of an access corridor between Willington Lock and Dairy Farm and land at Dairy Farm itself. Electricity transmission lines and high pressure gas mains cross the application land on both sides of the river.

The application site is located in open countryside some 330 metres to the north east of Willington village and 1km to the south west of Great Barford at the closest points. Further afield, outside the lower valley floodplain, the villages of Moggerhanger and Blunham are 1.8km to the south and 2km to the east respectively. The urban fringe of Bedford lies 1.9km to the west. The A421 Bedford southern bypass runs within 700 metres of the site to the north west.

There are a number of Grade II listed buildings within Willington at around 430 metres from the closest point of the site. Further Grade II listed buildings can be found at Great Barford. Barford Bridge is Grade I listed and located 1km downstream of the site. The Grade I Listed buildings at Willington Dovecote belong to the National Trust and lie 1km to the south west of the site. Moggerhanger Park, a Registered Park and Garden of Special Historic Interest incorporating listed buildings, lies 975 metres to the south east on the rising ground near Moggerhanger village.

Southern portion of site:

The Willington Lock land comprises three arable fields with grass headlands and boundary hedgerows. It is bounded to the north by the River Great Ouse, to the south by Barford Road (CXX) running between Willington with Great Barford, to the west by a sparse hedgerow and to the east by a dense boundary of riparian trees following a small linear ditch. Mature trees, predominantly willows, line the river bank. Old field boundaries are evident where two linear tree belts protrude into the site from the river boundary. Agricultural access is available via a private track off Barford Road. The land rises slightly from the river with the south west corner sitting some 4 metres higher at 23 metres AOD.

The site is subdivided by the dismantled Bedford to Cambridge railway which is delineated by a low embankment lined with mature trees, remnant hedgerow and grassland. A 2.4 metre-wide multi-user tarmac path runs along the old track bed and forms part of the National Cycle Network Route 51 (NCNR). The adjoining parcel of land to the east contains a 5 hectare gravel pit, known as Willington Lake, for which Shefford and District Angling Association acquired the fishing rights in 1985.

An outlying property known as Lock Keepers Cottage is situated approximately 240 metres to the east of the site next to Old Mills Lock. It is accessed via a farm track from Barford Road. Mill Lane Cottages lie midway between the site's western boundary and the edge of Willington village at a distance of 380 metres from the application land. The Ouse Valley Way (Public Footpath no. 3) crosses the site providing a riverside walk between Great Barford and Willington.

Northern portion of site:

The access corridor land between Willington Lock and Dairy Farm comprises a flat area of land in pastoral use, either grazed or hay cropped, lying between 19 and 20 metres AOD on the north bank of the River Ouse and Gadsey Brook. It is located between a dense strip of semi-natural woodland and further old mineral workings known as Barford Lake. This extensive waterbody was dug more than 25 years ago as part of the College Farm quarry workings and is landscaped with shelter belts and woodland plantations. The waters are managed by Blunham and District Angling Club. The truncated route of Bridleway no. 23 runs along the southern edge of the access corridor land and is disconnected from the wider path network.

The Dairy Farm land is generally flat at approximately 20.5 metres AOD in the south towards Gadsey Brook, but rises steeply to the north to a height of 34.5 metres AOD at the hedge bordering St Neots

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Road (C44). It forms part of a wider area quarried for sand and gravel between 2009 and 2015 which has been undergoing progressive infilling with inert waste pursuant to the consented restoration scheme. Landfilling operations have been suspended in some of the latter operational phases pending the outcome of this application. Consequently, a series of flooded excavations have been left separated by unworked corridors of land containing high pressure gas pipelines. Several indigenous topsoil and subsoil storage / screening mounds between 4 and 6 metres in height also remain pending use in final restoration works.

The land extending westwards from the site has been largely reinstated to pre-quarrying levels and returned to mixed arable and grazing uses with new hedgerows planted to re-establish old field boundaries. The St Neots Road boundary is delineated by a mature hedgerow with gaps whilst a triangular block of woodland is located adjacent to the north eastern end of the site. To the south and south west, between Gadsey Brook and the River Ouse, a wetland incorporating areas of species-rich grassland has recently entered an aftercare programme pursuant to its designated nature conservation afteruse. Renhold Public Footpath no. 23 navigates through this area from the end of Water Lane and the water meadows to the east having been permanently diverted around the main lake.

There are scattered dwellings on St Neots Road which are closely bounded by the site boundary, including Cuckoo Brook Cottage, Cuckoo Brook House and Dairy Farm. Further residential properties can be found along a narrow cul de sac known as Water Lane, which are several hundred metres from the site's western boundary, including Gadsey Brook Cottage, Hillgrove Hill Farm House, Hill Farm Barn, Hill Farm and Hillcrest.

A pair of Scheduled Monuments abut the western boundary of the site having been preserved in situ during the quarrying operations with a buffer area. These represent buried archaeological remains of national importance in the form of a henge type monument and bowl barrow (NHLE 1015587) and a further bowl barrow (NHLE 1015590). The wider Dairy Farm landholding contains two further scheduled areas comprising a hengi-form monument (NHLE 1015586) and two bowl barrows (NHLE 1015589), the closest of which is 100 metres from the site boundary. These monuments were preserved in a similar manner during the mineral extraction process.

THE APPLICATION:

Mineral reserve, imported fill requirement and timescales:

Planning permission is sought for the winning and working of 1.09Mt of sand and gravel, which would be worked at a rate of 350,000 tonnes per annum giving an operational extraction period of 3 years. Mineral extraction would be confined to the 31.9 hectare Willington Lock land south of the river. The boundaries of the proposed mineral working area are wholly within but reduced from the preferred strategic area allocation in the 2014 Minerals and Waste Local Plan due to the decision to exclude the westernmost field. The strategic objective of the applicant, Breedon Southern Ltd, is to secure an orderly transition between the exhaustion of reserves at Black Cat Quarry and beneath the old plant site at Willington Quarry and the commencement of new extraction operations at Willington Lock in the second quarter of 2019. The submitted mineral resource assessment identifies a workable deposit up to 5.5 metres in depth with an average composition of 41 per cent gravel, 54 per cent sand and 5 per cent silt. Overburden is generally less than 1.5 metres in thickness. The land is constrained by the route of a gas pipeline running east to west through the site along the alignment of the old railway embankment, and by overhead electricity lines and pylons. The applicant has assumed these elements of infrastructure will be diverted as part of preliminary works and that they pose no constraints to the exploitation of the defined sand and gravel deposit.

The calculation of the total recoverable sand and gravel reserve is based on a 30 metre extraction standoff to the River Ouse, a 20 metre standoff to Barford Road and a 15 metre standoff to the eastern and western boundary hedgerows. The proposed working scheme envisages the land being excavated in four phases which is partly dictated by the logistics of the volume of soils that need to be stripped, placed in temporary storage or used directly for restoration following the backfilling of the mineral void.

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The winning of sand and gravel and infilling of worked out areas with imported inert waste would take place concurrently. A materials balance exercise has identified a requirement for 477,000m³ (c.810,000 tonnes) of infill material (exclusive of on-site overburden) in order to create the proposed final landform. The material would be delivered to the working area by 20 tonne tipper vehicle utilising the new access off St Neots Road and bailey bridge. The deposit of inert waste is programmed to commence 12 months after the start of extraction and continue for 5 years at a predicted rate of 170,000 tonnes per annum. The applicant has stated there is a possibility that infilling would need to continue into a sixth year.

Creation of new site access onto St Neots Road:

The proposed access arrangement would entail a simple priority junction incorporating a bellmouth with suitable radii to accommodate the turning movements of Heavy Goods Vehicles (HGVs) and visibility splays of 4.5 metres x 215 metres to the west and 4.5 metres x 160 metres to the east. An internal access road would be constructed from the new junction to a weighbridge and site office positioned on vehicle loop road circulation system.

Establishment of new mineral plant site:

A sand and gravel processing plant would be erected within the northern part of Dairy Farm where the previous mineral extraction void has recently been infilled to approximate original ground levels pending final spreading of restoration soils. It is the applicant's intention to relocate the existing bespoke plant from Black Cat Quarry, where mineral reserves will soon be exhausted, to Dairy Farm. It comprises an integrated mobile washing plant which offers conveyor feeding, screening, sand washing and stockpiling on one compact, portable chassis. The unit has a production capacity of 225 tonnes per hour, with up to 5 different material outputs. It has a maximum height at conveyor level of 8.7 metres. The operation of the processing plant would be wholly ancillary to the proposed mineral extraction operation at Willington Lock.

A new concrete batching plant would be installed in broadly the same location comprising a conventional arrangement of ready mix concrete facility with:

- * a series of 6 metre-high aggregate storage bins with internal compartments to provide separate storage of sand and gravel of various sizes;
- * a ramp to a hopper which feeds the storage bins via an inclined conveyor;
- * 3 x 12 metre-high silos for the storage of cement imported to the site in conventional tankers and discharged into the silos via hermetically sealed pipes, with filters on the silos to prevent fugitive emissions; and
- * a batching area for loading the aggregate cement and water into road-going vehicles, mainly concrete mixer trucks.

It would be a direct replacement for the applicant's existing batching plant facility on the Grange Estate at Willington Quarry, which has reached the end of its operational life and is shortly to be pulled down to allow the last remaining area of permitted mineral reserves beneath the old plant site to be excavated and then restored to agriculture. The applicant states that the plant would produce 24,000m³ of ready mix concrete per annum. The aggregate feedstock for the plant would be limited to site-won material.

New haul road from plant site to Willington Lock:

An internal haul road would be constructed from the southern end of the plant site to a temporary bailey bridge crossing of the River Ouse. This would involve stripping the topsoils and subsoils from the footprint of the road and placement of the soils in temporary storage bunds to the north east of the plant site. It is proposed that this would consist of residual sand and gravels from Willington Quarry. The existing bridge structure linking the Grange Estate with Dairy Farm would be dismantled and re-erected on the development site.

Phased working and reinstatement of Willington Lock land:

Upon establishment of mobile plant access to the Willington Lock extraction area, topsoils and subsoils would be individually stripped from the defined phase 1 area in the south western quadrant bordering Barford Road. Topsoils would be stored in a 2.5 metre-high screen bund alongside Barford Road and in a storage mound to the north of the plant site fronting St Neots Road. The remaining subsoils would also be stored in bunds to the north of the plant site. The mineral would be excavated generally from

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south to north and hauled by mobile plant across the bailey bridge to the processing yard at Dairy Farm. Upon creating sufficient void with operational working space, the tipping of inert waste would commence in the south west corner. Mobile plant would transport as dug mineral to the Dairy Farm processing plant via the bailey bridge and internal haul road.

Phase 2 would see mineral extraction progress to the south eastern section of the site. Some of the stripped soils from phase 2 would be directly placed in the backfilled segment of phase 1 to reach final restoration profiles. Other soils arising from the phase 2 strip would be temporarily stored on the base of the remaining phase 1 void and in the emerging phase 2 excavation. The deposit of inert fill would progress the backfill restoration of the southern areas of phase 1 and 2.

The initial phase 3 soil stripping operation would involve direct placement of that material to further reinstate phase 1. The remainder of the soils lifted from phase 3 would partly be used for direct placement to achieve final landform contours over additional areas of phases 1 and 2 with the balance placed in temporary storage bunds in the base of phases 1 and 2. Excavations in phase 3, forming the north western quadrant of the site, would generally progress from north to south, with inert backfill restoration taking place behind the advancing working face. The north western and northern areas of phase 3 would be restored first via direct stripping and placement of soils from within phase 3 and an initial phase 4 soil strip.

The soils from phase 4 would be stripped progressively to allow for direct placement within a progressively infilled north western area of phase 3 and behind the advancing working face and infilled area of phase 4. Initially stripped soils would be added to the existing temporary soil bunds in the base of phase 2.

Phase 5 would see the continuation of backfilling with inert waste in phases 3 and 4 and the spreading of topsoils and subsoils sourced from the interim storage mounds in phase 2. By the end of phase 5, it is envisaged that the whole of phases 3 and 4 would be finally restored, with the exception of a central access corridor back to the bailey bridge to allow continued material movements.

The phase 6 operations would involve the completion of backfilling with inert material to the south west of the access road corridor in the northern half of phase 1 and the final profiling of this area by spreading of the stored topsoils and subsoils from the north of the Dairy Farm plant site. Upon the completion of the phase 6 works, the residual eastern area of phase 2 and the central access road corridor would be landfilled and then restored using the residual material from the soil mounds to the north of the plant site, the southern perimeter topsoil screen bund and the stores within phase 2 itself.

The application is based on the assumption that the National Grid high pressure gas pipeline along the former rail corridor will be relocated which in turn will allow the sand and gravel reserves along the pipeline to be won. If National Grid elect to retain their infrastructure, then this mineral would be sterilised and the limits of extraction would be revised to provide agreed standoff margins to a retained pipeline corridor, with a reinforced crossing point over the pipeline to access reserves within land to the south of the pipeline.

Water management for mineral processing:

An existing lagoon on Dairy Farm to the south of the proposed mineral plant site would be lined with indigenous clays from over deepening of the void. Once lined, this will form the primary silt containment lagoon into which effluent from the mineral washing operation would be discharged and treated via settlement. Treated waters would then be piped northwards to another existing pond on Dairy Farm, which is to remain unlined and would act as the site fresh water lagoon supplying fresh water to the mineral processing plant. Effectively there would be a water re-circulation system. Clean water for the concrete batching plant would be sourced in the same way. A third lagoon would be retained as a contingency for future supplementation of the lagoon system and would remain unlined.

Hours of operation:

It is proposed to restrict operating times to 0700 - 1800 hours Mondays to Fridays and 0700 - 1300 hours on Saturdays, with no working on Sundays or Bank Holidays. For temporary operations

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associated with soil stripping, construction and removal of storage bunds and spreading of restoration soils, operations would not commence before 0800 hours. There would be no night-time operations other than the essential operation of dewatering pumps.

Traffic:

The application is accompanied by a Transport Assessment to consider the traffic effects of the proposed development. Based on the proposed project programme whereby infilling would commence around 12 months after the start of extraction, the maximum forecast number of HGV movements on any given working day in years 2 and 3 (i.e. the busiest period) are forecast to be 60 loads of aggregate (120 movements), 30 loads of readymix concrete (60 movements) and 30 loads of inert fill (60 movements). This gives a total of 120 loads in and 120 loads out (240 movements). This potential maximum daily number of lorry movements would only occur in years 2 and 3 of the development. The number of HGV loads would decrease in years 4 and 5 whilst infilling operations are continuing but mineral and ready mix concrete production has ceased. In addition to HGV traffic, the applicant states that there would be up to 12 staff (24 movements) per day in cars or other light vehicles but which would reduce in the latter years of the project following cessation of mineral and concrete production.

Employment:

The application refers to the new quarry complex providing 8 full-time positions with a further 16 indirect jobs, such as hauliers, fitters and service engineers. Some existing jobs would be safeguarded for a longer period of time by virtue of the fact that a number of staff would be transferred from the closed workings at Black Cat Quarry.

Rights of Way (operational phase):

During the operational phase of the development, the applicant proposes to temporarily divert the NCNR around the southern side of the quarry. The interim 3 metre-wide path would be surfaced so as to permit all-season use and the topsoil bund running parallel to Barford Road would screen users from passing traffic. A further temporary diversion would be required for Moggerhanger Footpath no. 3 which crosses the northern phases of the extraction area from west to east. It is proposed to utilise an existing grassed track following the south bank of the river and thus within the proposed 20 - 30 metre extraction standoff. The bailey bridge would be constructed with sufficient headroom for the diverted footpath to run underneath it thereby avoiding the need for any heavy plant crossing. Along the proposed haul road corridor to Dairy Farm on the other side of the river, it is proposed to stop up Bridleway no. 23 for the duration of the development. Since this route is a dead-end anomaly in the network, no temporary diversion is proposed.

Restoration strategy:

The restoration strategy seeks to deliver a mixture of agricultural land with conservation field margins and new nature conservation areas, including floodplain grazing marsh, areas of wet woodland, broad-leaved plantation, new hedgerows and hedgerow trees. The stated aims of the strategy are to:

- * include a contribution to local biodiversity action plan targets along the river corridor;
- * to respond to local landscape character with a mixed land use that has a balance of productive farming, with wildlife habitats and recreation; to return the land to similar topography; providing water bodies near the river; to reinstate lost hedgerows and hedgerow trees to reinforce the landscape structure with large and medium scale geometric fields;
- * reinstate the same 13.7 hectares of best and most versatile Grade 3A agricultural land with the original soils for arable crops;
- * to reinstate rights of way and cycle routes and to provide additional footpaths and bridleways to link into the existing network.

Within the southern portion of the site, the higher ground towards Barford Road would form the bulk of the higher grade arable restoration with conservation headlands and new hedgerows. Within the floodplain on the south side of the river, 11 hectares of wet grassland would be created at a slightly reduced level from the original landform with 1.6 hectares of ponds and scrapes and a block of wet woodland extending to 1 hectare. The NCNR would be reinstated on its original alignment, albeit not on an embankment if the gas pipeline corridor is worked for mineral, and Moggerhanger Footpath no. 3 would be permanently diverted to the riverside. In addition, a new public bridleway would be created

between the NCNR and Barford Road to provide a future strategic link to the dead-end Bridleway no. 8 on Willowhill Farm.

The central access corridor would be reinstated to conservation grassland. A new public bridleway would be dedicated from the western end of the truncated Bridleway no. 23 following the north bank of the Gadsey Brook through the wider Dairy Farm landholding to a junction with Renhold Footpath no. 23.

The northern portion of the site would be restored broadly in accordance with the existing consented quarry restoration scheme for Dairy Farm, albeit approximately 6 or 7 years later upon the removal of the plant site and associated infrastructure. The only exception to this is that the small parcel of land on the east side of Cuckoo Brook would no longer be restored to agriculture. The clean water lagoon would be re-modelled to leave shallows as an additional biodiversity feature and a new area of broadleaved woodland would be created immediately to the south following infilling of the contingency lagoon.

Publicity:

Prior to the submission of the application, the applicant held a public exhibition at Willington Village Hall. There was a preview event for key stakeholders followed by an open event for all residents and all stakeholders. The exhibition attracted 112 people, with 31 opting to complete a feedback form. The applicant reports that the exercise was well received, with numerous respondents noting that the restoration had the potential to offer considerable benefits. However, a range of concerns were also expressed. The application also refers to the establishment of a Quarry Liaison Committee post the determination of the application to facilitate discussion with the local community on site operations and to allow regular public updates on quarry-related matters.

CONSULTATION RESPONSES

**Great Barford Ward Councillor
Flood Risk Officer -**

Environment Agency

I've had a look through the proposal this morning and have no objections to the surface water proposals submitted.

04/01/2018

It is considered that planning permission could be granted subject to the imposition of conditions in relation to:

- a scheme for restoration of the land covering final contours and soil profiles, land drainage arrangements, progressive phased restoration and the potential cells formed as a result and a programme of monitoring and implementation within each phase to achieve the required afteruse;
- a remediation strategy detailing how any unsuspected contamination will be dealt with;
- implementation of a monitoring and maintenance plan in respect of water quality;
- implementation of a hydrological monitoring scheme; and
- all surface water run-off to be passed through a settlement facility prior to being discharged to any watercourse, soakway or surface level sewer with such facility to be maintained for the life of development.

The site is located within Flood Zone 3 and is located above a Secondary A Aquifer of River Terrace Deposits consisting of highly permeable sands and gravels. The bedrock underlying these deposits is unproductive clay strata. The site is considered to be of high sensitivity and could present potential pollutant / contaminant linkages to controlled waters.

It is strongly recommended that the proposed mitigation measures in the submitted (FRA) are adhered to. A flood risk activity permit will be required for the new river crossing.

The Agency notes that the submitted topographical survey plan is not particularly detailed in terms of survey points and as such it is recommended that a more detailed survey plan is produced to ensure the site will be restored at or below pre-quarrying levels.

Reference is made to previous discussions between the Agency and the mineral operator about opportunities to provide fish and eel passage and enhancements on Gadsey Brook in terms of net biodiversity gain, including delivery of WFD objectives for the River Ouse.

Highways England

15/12/2017 & 08.05.2017 -

Offer no objection.

Natural England

21/12/2017

NE's screening of the application has triggered one or more Impact Risk Zones indicating that impacts to statutory designated nature conservation sites (Sites of Special Scientific Interest) are likely. In this case it is considered that the impacts on designated sites, and any associated planning controls that may be required, is straightforward. The Council is therefore advised to apply the generic advice note for minerals and waste applications accompanying NE's response. NE has not assessed this application for impacts on protected species. Published Standing Advice should be used to assess such impacts.

Attention is drawn to the Council's biodiversity duties under section 40 of the Natural Environment and Rural Communities Act 2006.

12/06/2018

NE has considered the proposal in light of its statutory duties under Schedule 5 of the Planning Act 1990 and the Government's policy for sustainable use of soil as set out in NPPF paragraphs 109 and 112. It is pleasing to note that the proposed extraction scheme focuses on achieving a balance between restoring Best and Most Versatile (BMV) land whilst seeking to contribute to Biodiversity Plan targets. It is noted that the strategy aims to reinstate the same 13.7 hectares of BMV (grade 3a) agricultural land with the original soils for arable crops. However, the Wildlife Trust and Forest of Marston Vale both point out that the proposed restoration concept includes less provision for habitat creation than was originally mooted when sites along the Ouse Valley were being promoted for inclusion within the MWLP. Should the development proceed, NE is satisfied that the Soils and Agricultural Land Classification Report (Appendix 8.1 of ES) constitutes a record of the pre-working physical characteristics of the application land. NE is satisfied that the working and reclamation proposals meet the requirements for sustainable minerals development.

Historic England

21/12/2017 -

No objection but wish to highlight concerns about safeguarding of designated heritage assets located just outside the

application boundary. These are primarily small discreet prehistoric scheduled monuments such as barrows and ditched enclosures, which survive as buried features. They were preserved in situ during mineral working at Dairy Farm with buffers and protection zones put in place. HE's concerns relate to SM 1015587 and SM 1015590 since they are situated on the western boundary of the northern section of the proposed development area earmarked for an aggregate processing plant and silt lagoon. HE consider that vehicle movements and earthmoving may have inadvertant impacts upon these monuments. Great weight should be given to an asset's conservation. It is recognised in para. 134 of the NPPF that where a development proposal would lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal. In order to meet NPPF requirements, further information is required as to what measures would be put in place to protect the monuments from harm and damage during operations. The future management of the monuments also needs to be addressed and this needs to be linked to the outstanding restoration proposal for Dairy Farm (scheme ref. 17/01933/AOC). HE anticipate that this could be addressed by a suitably worded heritage statement, a monument management & protection plan, application mapping and the restoration programme.

15/06/2018

HE confirm that they are broadly content with the project as a whole and support the Bedford Borough Archaeology officer's comments submitted on 25th May 2018. The applicant would need to set out a clear mitigation strategy for the scheduled monument going forward in order to minimise and reduce harm and risk. This would need to be approved by HE / Archaeological officer prior to implementation of the scheme.

08/01/2018

The Board has no comments to make with regard to this planning application.

02/07/2018 -

National Grid exercises its right to place a holding objection regarding this development which will cross a high pressure gas pipeline. National Grid has a Deed of Easement for each pipeline which prevents change to existing ground levels and storage of materials. It also prevents the erection of permanent / temporary buildings, or structures. The developer should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and National Grid's specification for Safe Working in the Vicinity of National Grid High Pressure gas pipelines and associated installations - requirements for third parties T/SP/SSW22. National Grid will also need to ensure that pipeline access is maintained during and after construction. Excavation works may take place unsupervised no closer than 3 metres from the pipeline once the actual depth and position has been confirmed on site under the supervision of a National Grid representative. Where existing roads cannot be used, construction traffic should only cross the pipeline at locations agreed with a National Grid engineer. All crossing

Beds/River Ivel Internal Drainage Board

National Grid Plant Protection

points must be fenced on both sides with a post and wire fence and with the fence returned along the easement for a distance of 6 metres. The written permission from National Grid is required before any works commence within the easement strip.

02/07/2018

National Grid exercises its right to place a Holding Objection to the above proposal which will cross a High-Pressure Gas Pipeline - Feeder. How is the applicant planning on protecting the pipeline at the crossing point? The easement should be kept clear of overburden from the proposed subsoil stores.

**Anglian Water
Health And Safety Executive (National
Quarries Team)**

No comments received.

12/12/2017

Comments only received in response to parallel application made to Central Bedfordshire Council -

Surface mineral workings are subject to the provisions of the Health and Safety at Work Act 1974, The Quarries Regulations 1999 and other health and safety legislation. Enforcement is carried out by the Quarry Inspectors of the Health and Safety Executive whose primary aim is to prevent the risk of accidents to the workforce and others, including the public, who may be affected by the activities of the quarry.

Having considered the information submitted, no areas of potential conflict with health and safety requirements have been identified. As such there are no further comments to make.

**The Royal Society For The Protection
Of Birds
Forest Of Marston Vale**

No comments received.

15/05/2017 -

As one of England's Community Forests, there is a Government target to increase woodland cover in the Marston Vale to 30 per cent by 2031. Development sites should contribute towards the achievement of this target. The Forest Plan 2000 provides the strategic framework and long term vision for creating the Forest and is a material consideration in determining planning applications within the Forest boundary. The Bedford Borough Local Plan included specific policy support for developments to assist in the implementation and creation of the Forest (Policy NE21) as set out within the Forest Plan (note that this policy has been superseded by Policy AD25 of the Allocations and Designations Local Plan). The Bedford Borough Core Strategy and Rural Issues Plan 2008 has preserved the sentiment of this policy support in CP24. Policy AD25 states that the Council will expect proposals to address the aims of the project as set out in the Forest Plan and seek contributions towards its implementation, including the 30% woodland cover target.

The revised restoration strategy (plan no. W16_LAN_020) shows a much improved scheme that benefits public access, woodland and wetland habitats. The applicant and landowner is

to be commended on the improvements and especially for the vision to support the creation of a new section of bridleway to help resolve the dead end anomaly affecting Bridleway no. 8 as well as the proposed creations and upgrades throughout the scheme. The additional areas of wetland including grazing marsh and grassland will complement the wetland habitats that have been delivered at the Grange Estate and Dairy Farm as part of the delivery of the Bedford River Valley Park. Catchment in the floodplain will also be increased.

**Bedfordshire Rural Communities
Charity
Campaign To Protect Rural England
Bedford Ramblers Association
Bedfordshire Rights Of Way
Association
British Horse Society
SUSTRANS**

No comments received.

No comments received.

No comments received.

No comments received.

No comments received.

Comments were submitted only in response to the parallel application made to Central Bedfordshire Council -

The NCR51 (Bedford to Sandy Country Way) is a popular route for commuting and leisure. The proposed diversion adds a considerable distance to any journey thereby discouraging use. The proposed diversion route is not clear on the submitted Site Establishment plan. Only 2.0 metres of headroom is allowed where the route goes under the proposed bailey bridge. This does not meet recommended clearances in Sustrans' design guidance (minimum is 2.4 metres).

The surface of the existing path which will be removed is an all-season tarmac surface. This one of the best sections of the whole route. Any diversion has to be capable of all-season use. The bailey bridge embankments have culverts to allow for flood flow. If these are used, the path will be under water and unusable when the river floods. There is no viable diversion. The path needs to remain open throughout the year, as it is currently, and therefore the path needs to be high enough above the river to avoid flooding. The width of the existing path is 2.4 metres. This is less than current recommendations which are that a path should be 3.0 metres. Given the popularity of this route, any restored path should meet this standard for all-season use.

It would aid walking, cycling and riding permeability if the bailey bridge could be retained for right of way or permissive use after the project.

11/12/2017 -

The application, if approved, would be a major threat to National Cycle Network Route 51, which is an extremely popular cycle route for both local and national cyclists (and walkers). If diverted, as proposed, around the north and east part of the site it would be almost double the current length.

Should the application be approved, CCNB would like to see the cycle track diversion, which is likely to be in existence for up to 10 years, have a machine laid top surface to a width of at least 3 metres (not a 2.4 metre unbound gravel track as

**Cycling Campaign for North
Bedfordshire**

suggested). The actual line of the diversion on the western side is not clear on the maps supplied. But it is recommended that the route follows a direct line along the river from Willington Lock (as per Public Footpath No. 3).

When the cycle track is restored to its original alignment, it should again have a machine laid final surface to at least 3 metres in width and, if possible, include a diversion behind the farm house near Willington Lock to the existing track from Danish Camp to avoid the narrow section and two right angled blind turns through which cyclists should currently walk. This was proposed by the Forest of Marston Vale in about 2004 but never built.

It was proposed by Bedford Borough Rights of Way in 2008 that Footpath No. 3 from Willington Lock to Great Barford would be converted into a cycle route when budgets allowed to join up with route 51. Wide new bridges were installed at the time to eventually allow for their use by cyclists. If the application is approved, it would be an ideal time to carry out this upgrade when the site is being restored.

HECS (Env Health & Trading Standards)

08/01/2018 -

The Environmental Health officer recommends the inclusion of the following conditions should the Local Planning Authority be minded to approve the application:

- hours of working shall be restricted to 0700 to 1800 hours on weekdays and 0700 to 1300 hours on Saturdays with no working on Bank Holidays;
- noise emitted from the site operations shall not exceed 45dB LAeq, 1 hour (free-field) at the boundary of Old Mills Cottage or any residential property within the village of Willington lawfully existing at the date planning permission was granted and shall not exceed 54dB LAeq, 1 hour (free-field) at the boundary of any other residential premises lawfully existing at the date planning permission was granted without the prior written agreement of the Local Planning Authority; and
- prior to the commencement of development, submission and approval of a dust management plan identifying all significant dust release points and sensitive receptors and describing the mitigation measures to be applied to control dust.

29/05/2018 -

No further comments to add to those previously submitted.

Contaminated Land officer (17/01/2018)

No objection to the application subject to conditions proposed by the Environment Agency, as described in their letter dated 4th January 2018.

The submitted Environmental Statement (ES) has examined water resources as a receptor and does not identify any potential risks to human health associated with the development. The Enforcement Officer (Contaminated Land) agrees with this assessment.

Reference is made to the Environment Agency's consultation response to this application in which 5 conditions have been

recommended for the protection of controlled waters. There is support for the inclusion of conditions 2, 3 and 4 (it is considered that conditions 1 and 5 are outside the officer's remit). Monitoring results from the requirements of conditions 2, 3 and 4 should be made available.

Conservation Officer

19/01/2018 & 01/06/2018 -

A Zone of Theoretical Visibility (ZTV) has been created to represent the worst case scenario (i.e. predicted visibility of the development without any vegetation or buildings). This illustrates that the development would have a visual impact on only one Listed Building (Hill Farmhouse, Renhold), which is located c400 metres to the east of the site. The setting of this Grade II listed building contributes to its significance in that it is in a predominantly rural landscape. However, changes to its setting include the A421 and quarrying activity at Dairy Farm. The Conservation officer accepts the applicant's assessment that the setting makes a moderate contribution to the significance of this listed building. Old Mills Cottage (Grade II listed) is 235 metres from the eastern boundary of the site. It is situated within a band of woodland with no views of the site. The setting of this building is currently agricultural and it is likely this makes a positive contribution to its significance including its remoteness. It is noted that the site is designated for sand and gravel extraction within the joint Bedfordshire Minerals and Waste Local Plan. It is concluded that there is potential for harm to some of the identified heritage assets. This is likely to be minor less than substantial harm in the short to mid-term to the setting of Hill Farmhouse and very minor less than substantial harm to Old Mills Cottage in the same timeframe. Given the distances proposed and the potential for mitigation and restoration in the long term, there should be no harm to any of the identified heritage assets in the long term. The short to mid-term harm identified should be weighed against the public benefits of the proposal in line with para. 134 of the NPPF. In view of the low level of harm identified (short / mid-term) and the absence of long term harm, there are likely to be sufficient public benefits to outweigh this harm.

Highways Development Control

A simple priority T-junction is proposed. Overall usage should be limited to 300 vehicle movements per day to avoid excessive peaks in movements that may warrant a ghost right turn lane. A daily cap of 260 HGV movements should be set (making allowance for the expected non-HGV movements). The Highways officer initially recommended that no traffic should use the access during the morning peak due to concerns about the difficulty of being able to turn right into the site against the flow of traffic leaving Great Barford. But additional information submitted on daily traffic patterns and accompanying junction capacity modelling indicates there will be sufficient gaps in traffic and minimal queueing. Speed survey and weather data has been submitted to indicate that a reduced visibility splay in one direction would be acceptable. The junction design and visibility is acceptable. Heavy traffic should be routed to avoid local villages. It is not possible to

create a viable central island to prevent right turns out of the site towards Great Barford. This is because such an island would need to be at least the full width of the access bellmouth to stop vehicles exiting right past the end of it, but this would then prevent any right turns into the site from the A421. It is therefore reasonable to require a right turn ban at the site exit by the use of a TRO. Conditions are recommended regarding visibility splays, junction warning / turning traffic signs, measures to prevent right turns out of the site and restrictions on the number of HGVs during morning peak times (0700 to 0900 hours) and per working day.

Cycling officer - The proposed temporary diversion of the cycleway around the northern side of the site is over twice the length of the existing route. This is not an equal or acceptable replacement and does not meet cycle way standards in terms of width, surface or directness.

Arboricultural Officer - HER Team

05/02/2018 -

The site is outside the conservation area and is not subject to a Tree Preservation Order. As such, the trees within the red line boundary are not afforded statutory protection. However, this area has a high usage for countryside access and the 'treed' character of the area is important and needs to be retained and protected. The proposed haul road to the north of the river is proposed to be in close proximity to a belt of riverside trees. Exact details of the location of this haul road in respect of its proximity to any trees in the vicinity are lacking. This aspect requires clarification. The submission of a tree report in accordance with BS 5837 : 2012 is required with supporting Tree Constraints / Protection Plan, Implication Assessment and Method statement if required.

09/05/2018 -

The proposed haul road identifies three A grade trees for removal. The response from the Wildlife Trust acknowledges the ecology report, which would have identified any wildlife issues (e.g. bats) that may utilise the trees. The Council will not be seeking a Tree Preservation Order and therefore the removal of the trees is acceptable, although further details of a Schedule would be useful to clarify species. In the long term, following the extraction works, restoration of the area will increase diversity.

Archaeological Officer

17/01/2018 -

The Environmental Statement concludes that the development will likely cause negative impacts to four scheduled monuments (NHLEs 1015587, 1015590, 1015589 & 1015586). The harm will come from the conspicuousness of the new processing plants and the industrialising effects of quarrying activities on the character of their setting and increased noise, dust and vibration caused by traffic movements. The assessment notes that the effects would be medium term in nature lasting 6 - 7 years. The Archaeological officer generally agrees with these conclusions and considers that the level of harm caused is likely to be a high level of 'less than substantial harm' for NHLEs 1015587 & 1015590 and a lower level of 'less than substantial harm' for monuments NHLEs 1015589 & 1015586. Due to their immediate proximity to the processing plants, there is potential for direct impact on two monuments

(NHLEs 1015587 & 1015590) unless measures are taken to protect them from activities. The applicant is encouraged to provide further details on the protective measures proposed to prevent such direct harm during operations and restoration. Whilst the processing plant itself is located within areas formerly subject to mineral extraction, there is potential for direct impacts to underlying archaeology to be caused by the proposed soil storage areas, access roads and associated infrastructure. Should permission be granted, an archaeological mitigation strategy will be required ahead of commencement works.

25/05/2018 -

The applicant has provided further details on the protective measures proposed to prevent direct harm to the adjacent monument (SM 1015587). Recent aerial photography demonstrated that the bund and buffer zone have provided sufficient protection for this monument and if left in place should still provide sufficient protection. Concerns remain regarding setting impacts which are likely to result in 'less than substantial harm' using NPPF terminology (para.134).

18/01/2018 -

The proposed diversion of Footpath no. 3 alongside the river should be dedicated as a public right of way (PROW) and surfaced to enable multiple uses. It should be built to a standard to enable future cycle linkage to Great Barford and to the National Cycle Route 51 (NCR51) once it is reinstated. NCR51 should also be dedicated as a PROW to ensure they are maintained post mineral extraction. The track to the south of the existing NCR51 which links with Barford Road should become a PROW to provide a future bridleway link with an extended Willington Bridleway no. 8 to the south of Barford Road. There is a need to create a bridleway link on the north bank of the main river and Gadsey Brook effectively linking Water End Lane, Renhold (and the new wooden bridge over the Gadsey Brook) with the truncated Great Bridleway no. 23 downstream. This has been identified in previous restoration plans. It is preferred that this is dedicated as a PROW rather than a permissive path. This will require the provision of infrastructure to enable access such as gates, signage and small bridge structures.

These proposed access improvements will provide better links to the wider right of way network and a number of alternate and circular routes for users will be created. This area is part of the Bedford River Valley Park (BRVP) and will contribute to the improvement of public access outlined in the BRVP document.

In terms of strategic access in the Ouse Valley and BRVP, there is potential for a number of wider benefits to public access arising from mineral extraction development in this area.

The Parish Council has concerns regarding the safety of the access onto the C44 (St Neots Road), including vehicles turning right into the site. A central road feature should be installed to ensure safe access. It would be advisable to lower the speed limit in the area. Plant vehicles must not use the

Countryside Access Service (Public Rights Of Way)

Great Barford Parish Council

Application No : 17/03351/EIAWM

**Renhold Parish Council
Willington Parish Council
National Planning Casework Unit
East West Rail Consortium**

Great Barford Bridge (an Ancient Monument).
No comments received.
No comments received.
No comments received.
Comments only received in response to parallel application made to Central Bedfordshire Council -

**Renhold Ward Councillor
Great Barford Ward Councillor**

At present, the proposal does not immediately impact on any of the proposed route options between Bedford and Cambridge.
No comments received.
No comments received.

NEIGHBOUR COMMENTS

The application has been publicised by way of a press notice, neighbour notification letters posted to occupiers within a 250 metre radius of the site boundary and the posting of more than 10 site notices (combined total for BBC and CBC notices). The further information submitted in response to the Regulation 25 request was similarly advertised.

Five representations have been made in respect of the application made to Bedford Borough Council, of which four are registered as objections. (No representations have been received in response to advertisement of the identical application made to Central Bedfordshire Council, which has yet to be determined). A number of the comments made, however, focus on the impact of the extraction operations which would be confined to land south of the river within Central Bedfordshire. Given that the merits of the development scheme must be assessed as a whole and not on the basis of administrative boundaries, comments have therefore been treated as if they were made in respect of both applications. A summary of the representations made is produced below:

The red line boundary appears to extend well beyond the Bedford Borough boundary and therefore a large part of the application and most of the extraction area appears to lie outside Bedford Borough's jurisdiction. If Bedford Borough are minded to approve this application, they must require the applicant to resubmit, limiting their application to the area within the Council's boundary.

The constraints on the infill and future use of the site ('...partially infilled with imported inert material...') are nowhere near strict enough allowing the site to be used as a dump for inert waste which would include the potential for household and industrial waste to be dumped there. This will not only impact on Willington but also the villages of Great Barford, Blunham, Chalton and Moggerhanger which are immediately downwind of the site.

The application would have a devastating effect on and destroy the quiet enjoyment of the river and the public footpath (Ouse Valley Way) between Great Barford and Willington as well as the popular cycle route 51 between Sandy and Bedford. It is appalling that the Council has even entertained this money-making venture. The village already has a quarry which on its own is devastating enough for wildlife. The small patch of woodland to the left of the lock is one of the only places near the village to hear Nightjars and is a favoured place of other birds. All of this will disappear from the village as a result of these plans which should be rejected outright. The village should not be destroyed in the name of a quick buck for a company that does not care and run by people who have never set foot in the village.

The area forms part of the River Ouse flood plain. There is concern that the works will impact on the ability of the land to flood which may result in considerable impacts on other parts of the river such as at Great Barford and its important river crossing which is essential to local communities and businesses.

If the Council are minded to approve the application, it should be ensured that the works include substantial exclusion zones either side of the cycle route 51 with natural measures to conceal the works from public view with limited and highly controlled vehicular crossing points. There should be severe limitations on the infill, excluding any man-made material, to ensure the land is returned to farmland of similar quality and site profile to that which is existing or requiring the land to be left as lakes and

Application No : 17/03351/EIAWM

woodland to extend the country park. Reference is made to other constraints such as limits on working hours, generation of noise, dust, pollution and traffic movements from the site which should be conditioned by the Council as a matter of course. The Council should also ensure that any approval is conditioned to ensure that the capacity of the flood plain is not affected during any phase of development.

Residents of Mill Farm and Brutus Barns point out that their properties overlook the proposed development site for extraction of gravel being the closest properties. Objection is raised on the basis that there is no screening bund or fence between those dwellings and the extraction area. Without such bunding, the objectors are concerned that the works will give rise to adverse effects of noise and dust pollution. It is noted that the application appears to show screen bunding and fencing along the Barford Road side of the site. Further concerns are raised with respect to the elevated nature of the river bailey bridge, which will create noise pollution when dump trucks cross the metal platform.

Public health and well-being concerns have been raised by residents, including physical and mental health issues.

The updated application has moved the boundary line (away from Mill Farm Cottages), which is comforting. However, the application cannot be supported with a lack of information as to how residents will be impacted visually and in terms of dust and noise. The applicant, Breedon, has been made aware of residents' concerns but there has been no response. If Breedon are unable to follow up individually, perhaps another public meeting should be arranged?

These matters will be considered within the assessment section of the report.

ASSESSMENT OF APPLICATION

1.0 CONTEXT AND MAIN ISSUES ARISING

1.1 The application is to be determined by the Planning Committee as there have been neighbour objections and the recommendation is for approval (subject to the prior completion of a Section 106 Agreement).

1.2 The main issues arising in respect of this application are:

- Environmental Impact Assessment
- Overview of national and local policy
- Need for the mineral
- Working Programme - phasing arrangements, materials balance, services
- Restoration and aftercare
- Ecology and nature conservation
- Landscape and visual impacts
- Agriculture and soil resources
- Hydrology and hydrogeology
- Noise
- Air Quality
- Transportation
- Cultural Heritage
- Cumulative impact
- Section 106
- Conclusion

2.0 ENVIRONMENTAL IMPACT ASSESSMENT

2.1 On 27 February 2017, separate Scoping Opinions were adopted by the Planning Authorities, based on the quarry scheme as a whole, identifying the range of topics to be covered in the

assessments and reported in the Environmental Statement. Since these Scoping Opinions were issued, however, new EIA Regulations have come into force. The 2011 EIA Regulations have been revoked and replaced by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. There are transitional provisions in place whereby the 2011 Regulations continue to apply. These apply in those instances where a proposed development was subject to a Scoping Opinion made on or before 16 May 2017 and the application subsequently made is materially the same (regulations 18 and 76 refer). Officers take the view that application as formally submitted to each Council is materially different from the development subject of last year's Scoping exercise. There have been modifications to the red line area as a result of changes to the position of the haul road corridor, bailey bridge crossing and soil storage / screening mounds. Furthermore, the area of mineral extraction has been reduced as a result of the decision to exclude the westernmost field. It was concluded therefore that the applications must be considered pursuant to the new EIA Regulations.

2.2 The application is accompanied by an Environment Statement (ES) which includes chapters or sections on landscape and visual impact, ecology, agriculture and soil resources, hydrology and hydrogeology, noise, air quality, transportation, cultural heritage, cumulative impacts and alternatives. This is in line with the breadth of information sought by the Scoping Opinions. By virtue of regulation 18(3)(f) and Schedule 4 of the 2017 Regulations, the list or extent of environmental information to be included in an ES (so far as they are relevant to the specific characteristics of the development and the environmental features likely to be affected) has been widened. For example, human health (such as accidents and disasters) and climate (such as the nature and magnitude of greenhouse gas emissions and the vulnerability of the project to climate change) are now specifically listed as factors to be assessed. The specific characteristics of the proposed development do not warrant consideration of human health over and above the assessment already undertaken as part of the air quality chapter. The vulnerability of the project to climate change has already been assessed from a food risk perspective. It is officers' view that the new 2017 Regulations do not give rise to a need for new environmental topics or subject matters to be addressed within the ES and in this regard the submitted ES is judged to be compliant with the new regulations.

2.3 During the course of processing the application, a request made under Regulation 25 of the 2017 EIA Regulations sought additional information, evidence and clarification on a number of points including:

- working plans and interaction with the gas pipelines in the event that the owners elect not to divert this apparatus;
- survey information underpinning the Transport Assessment;
- maximum levels of HGV traffic;
- loading arrangements for mineral HGVs;
- soil and fill volumes;
- interaction with the existing approved soil handling scheme for Dairy Farm;
- floodlighting usage and visual impact at night;
- the extent of loss of riverside / riparian trees;
- protection and future management of the Scheduled Ancient Monuments adjoining the proposed plant site;
- restoration strategy and afteruse; and
- public access.

2.4 The Regulation 25 response has been the subject of further publicity and consultation in accordance with the 2017 EIA Regulations.

3.0 OVERVIEW OF NATIONAL AND LOCAL POLICY

3.1 The policies within the National Planning Policy Framework (NPPF) are material considerations to be taken into account alongside the guidance set out in the National Planning Practice Guidance. The NPPF's core planning principles include focussing development in locations which are, or can be made, sustainable. It contains a series of policy statements of relevance to this application, namely:

- Building a strong, competitive economy;
- Promoting sustainable transport;
- Meeting the challenge of climate change, flooding and coastal change;
- Conserving and enhancing the natural environment;
- Conserving and enhancing the historic environment;
- Facilitating the sustainable use of minerals.

3.2 Policies within the Minerals and Waste Local Plan: Strategic Sites & Policies 2014 (MWSSP) are afforded full weight whilst saved policies from earlier plans may be given due weight according to their degree of consistency with the NPPF. Policy MWSP1 of the MWSSP also sets out a presumption in favour of sustainable development in line with the approach in the NPPF. Through policy MWSP3 of the MWSSP, applications for mineral extraction and waste management development should be determined with regard to, inter alia, the saved General and Environmental policies in the Bedfordshire & Luton Minerals & Waste Local Plan 2005 (MWLP). A number of policies within the 2002 Bedford Borough Local Plan (BBLP) have also been saved and are material to the assessment of the application.

3.3 Government Planning Practice Guidance (PPG) is available as a web-based resource under a series of categories. The Minerals PPG advises that the suitability of a proposed mineral working site must be considered on its own merits taking into account issues such as:

- need for the specific mineral;
- economic considerations (such as being able to continue to extract the resource, job retention, ability to use existing plant and other infrastructure);
- positive and negative environmental impacts (including the feasibility of a strategic approach to restoration); and
- the cumulative impact of the proposals on the area.

3.4 These issues are examined in the following sections of this report.

3.5 In terms of the national and local policy considerations of relevance to waste development, the Waste Management Plan for England (WMPE) aims to work towards zero waste economy by use of the waste hierarchy. Under this hierarchy, landfill should usually be the last resort. This approach is reinforced by the National Planning Policy for Waste 2014 (NPPW), which states that disposal is the least desirable option and should only be used when none of the options further up the hierarchy are appropriate. However, whilst the NPPW expects Authorities to drive waste management up the hierarchy, it also requires provision to be made for waste disposal. It is proposed to import inert waste to the site to achieve the desired final restoration levels (supplemented by on-site overburden) and this has been the subject of a materials balance exercise. Materials would be sourced from within Bedfordshire and outside of the Plan area. By virtue of policy WSP14 of the MWSSP, proposals for the disposal of inert waste should be looked at in a favourable light where they would contribute towards the restoration of former mineral working voids or give rise to an environmental benefit. The likely impacts of inert landfill operations must be balanced against the proposed benefits. A fundamental point to consider is whether the proposed scale of the inert waste filling operation and the volume of fill identified is proportionate to achieving an acceptable or enhanced restoration solution.

3.6 Section 7 of the NPPW states that when determining planning applications, waste planning authorities should, inter alia, consider the likely impact on the environment and on amenity against the locational criteria set out in Appendix B. Those factors of relevance to this application are listed below and addressed in subsequent sections of this report:

- protection of water quality and resources and flood risk management;
- landscape and visual impacts;
- nature conservation;
- conserving the historic environment;
- traffic and access;
- air emissions, including dust; and

- noise, light and vibration.

4.0 NEED FOR THE MINERAL

4.1 Saved policy GE1 of the MWLP requires applicants to provide sufficient information in respect of several matters including the need for the development in a national, regional and local context.

4.2 Paragraph 142 of the NPPF states that:

"Minerals are essential to support sustainable economic growth and quality of life. It is therefore important that there is a sufficient supply of mineral to provide infrastructure, buildings, energy and goods that the country needs. However, since minerals are a finite natural resource, which can only be worked where they are found, it is important to make best use of them to secure their long-term conservation."

4.3 Significant weight should be placed on the need to support sustainable economic growth through the planning system. Furthermore, great weight should be given to the benefits of mineral extraction, including to the economy (NPPF paragraphs 19 and 144 refer). The NPPF acknowledges the importance of planning for a steady and adequate supply of aggregates and to maintain a sand and gravel landbank of at least 7 years (paragraph 145). Alongside this, each MPA is expected to prepare an annual Local Aggregate Assessment (LAA) which looks at the rolling 10 year sales average and other information to identify the general trend as part of the consideration as to whether it might be appropriate to increase supply. The NPPF does not set an upper limit on landbanks but advises that they should principally be used as an indicator of the security of aggregates minerals supply. Similarly, the PPG advises that there is no maximum landbank level and each application for minerals extraction must be considered on its own merits regardless of the length of the landbank. A joint LAA is produced on behalf of Central Bedfordshire, Bedford Borough and Luton Borough Councils to cover the whole of the Plan area.

4.4 The adopted Minerals & Waste Local Plan Local Plan: Strategic Sites & Policies 2014 (MWSSP) makes provision for a supply of 1.84Mt of aggregate minerals per annum throughout the Plan period to 2028. This equates to the sub-regional apportionment for the Plan area derived from National and Regional guidelines for aggregates in England (published in 2003 and revised in 2009).

4.5 Paragraph 145 of the NPPF advises MPAs to seek and take into account the technical advice from the relevant Aggregate Working Party (AWP). In 2016, the East of England AWP expressed concern that the apportionment figures, which expire in 2020, were becoming outdated and, given that the prospect of updated guidelines emerging in the foreseeable future appears unlikely, AWP members have highlighted the need for sand and gravel provision in plans to be based upon the methodology expressed in national policy and guidance (NPPF paragraph 145 and Planning Practice Guidance paragraphs 61 - 71).

4.6 According to the East of England AWP Annual Monitoring Report (2017), as at 31 December 2017 estimates of permitted reserves in the Plan area totalled 15.9Mt. Applying the methodology in the NPPF based on the rolling average 10 year sales to stated reserves, indicates a landbank of 12.4 years. This represents a reduction from the corresponding landbank calculated at the end of 2016 of 14.3 years. Calculating the landbank based on the sub-regional apportionment figure of 1.84Mt per annum produces a lower landbank as at the end of 2017 of 8.6 years compared with 10 years at the end of 2016, although still above the minimum 7 year landbank test in the NPPF.

4.7 Policy MSP1 of the MWSSP sets out the spatial strategy for the supply of aggregate sand and gravels. In the supporting text, it is stated that new strategic sites for the production of sand and gravel will be required in order to maintain a minimum supply of 1.84Mt per annum, with an additional 10.07Mt of sand and gravels needing to be released over the Plan period to supplement reserves at existing workings. In order to satisfy this provision, the MWSSP identifies six strategic aggregate sand and gravel sites with total reserves of 10.1Mt in the Lower Ouse and Ivel Valleys. The allocated sites are as follows:

- Willington Lock
- Blunham / Roxton
- Black Cat (northern and southern extensions)
- Willowhill Farm
- Bridge Farm
- Land south of Broom village.

4.8 There is therefore a policy presumption in favour of releasing the application site (as well as the adjoining areas of land at Bridge Farm and Willowhill Farm) for mineral extraction during the Plan period. The applicant has submitted the findings of a mineral resource assessment based on 2015 borehole investigations and other data. This confirms the quality of the river terrace deposits and an exploitable mineral reserve of 1.09Mt taking into account site constraints and boundary standoffs. It assumes that the National Grid gas pipeline and electricity pylons would be diverted to allow the underlying mineral to be won. Although the mineral yield is less than the figure of 1.24Mt identified in the MWLP, this is partly a consequence of the company's decision to exclude the westernmost field of the strategic allocation from the proposed scheme. The assessment is considered to be sufficiently robust.

4.9 Planning permission was granted in April 2016 for the extraction of some 650,000 tonnes of sand and gravel as an extension to the applicant's Black Cat Quarry on the A1 at Chawston. Reserves at Black Cat Quarry are expected to be exhausted by the end of 2018. There are very limited undug reserves at Willington Quarry (Grange Estate) beneath the old processing and batching plants, which must be won by the end of this year before the permission expires and to allow final restoration to be delivered in line with approved timescales. Otherwise the company has no permitted reserves in the Plan area to fall back on. The release of further identified sand and gravel reserves at Willington Lock would help to ensure continuity of mineral production for one of main operators in the Plan area.

4.10 In considering the acceptability of the development proposals, the national importance attached to maintaining a steady supply of aggregate minerals needs to be balanced against other environmental and amenity considerations, both positive and negative, as examined in the subsequent sections of this report.

5.0 WORKING PROGRAMME – PHASING ARRANGEMENTS, MATERIALS BALANCE, SERVICES

5.1 The extraction land has been designed as a four phase operation which would yield some 350,000 tonnes of mineral per annum giving an operational life of some 3 years. The phases would not provide equal volumes but have been designed partly to reflect the logistics of the volume of soils which need to be handled. The series of working plans identify the volume and type of soil resource in each phase and chart the movement of the soils from initial stripping to temporary storage (for later placement) or direct placement for restoration. It is necessary to transport some of the soils over the river for temporary storage on higher ground in the plant site area so as to avoid stockpiling of materials in the flood plain. The plans also depict the stage of working at the end of each phase and the extent of restoration progress. A materials balance exercise has been undertaken to demonstrate fill requirements and placement volumes for delivering proposed final restoration levels in each phase.

5.2 The application is based upon an assumption that the National Grid pipeline present along the former railway line corridor will be relocated which will allow the mineral along this corridor to be excavated during phases 1 and 2. However, the costs associated with removal of statutory undertaker pipelines is substantial and very likely to be prohibitive. Dairy Farm and Black Cat Quarries are a case in point. Officers therefore expect that negotiations between the applicant (mineral owner) and National Grid will take place on the back of any grant of planning permission to settle a compensation payment for sterilisation of the permitted mineral reserves. In this scenario the limits of extraction would need to be revised to provide agreed standoff margins to a retained pipeline corridor, with a single reinforced plant crossing point over the pipeline to access reserves to the south of the pipeline. This would be an at-grade crossing, with suitable warning signs relating to heavy plant crossing. This would be a localised issue not dissimilar to the existing mineral plant site at Willington. A conceptual plan has been produced

to show modified working phases and extraction limits. The retention of the pipeline corridor would mean that the Bedford – Sandy cycleway remains undisturbed and open for use on its current alignment along the former rail corridor. There would be no need for this route to be temporarily diverted around the edge of the quarry land. The required standoff margin to protect the pipeline would effectively also protect the cycleway, with a standoff to the low embankment. The scheme also assumes that the electricity pylons on the extraction land will be removed / relocated. One pylon sits within the southern eastern corner of phase 3 whereas the other two fall close to the site boundary. As a guide, standoff margins of some 8 metres with 1 in 3 batters have been adopted during extraction at Dairy Farm. If the pylon owners elect to retain their infrastructure, similar compensation negotiations would take place. The low embankment along the former rail corridor is estimated to contain some 5,500m³ of material. Should any decision be taken to remove the pipeline, the nature of this material would be tested and assessed prior to removal and a decision made as to whether it is consistent with the recovery permit list of materials and can be used as backfill within the mineral void, or whether it will need to be removed from the site for disposal / use elsewhere. The operator would still be able to carry out the quarrying, infilling and restoration operations in broad accordance with the submitted working drawings if the pipeline and pylons remain in situ. Minor alterations to detailed aspects of the site restoration would be required if services are not removed, which could be addressed as part of a scheme for the submission of a detailed final restoration plan. A condition could be imposed accordingly.

5.3 The Council's Cycling Officer, Sustrans and Cycling Campaign for North Bedfordshire have raised concerns regarding the increased distance that would need to be covered by users in the event that the cycleway is temporarily relocated to the outer edge of the extraction site. An alternative shorter route is recommended by the Cycling officer but this would cross land that is not under the applicant's control and outside the red line area. It is therefore not deliverable. The application originally proposed a temporary diversion of the cycleway around the north side of the quarry to provide a more pleasant route taking in part of the river. This reflected local resident feedback from a public exhibition of the quarry proposals which was held prior to submission of the application. However, this diversion has been ruled out on the advice of Sustrans as it would be liable to flooding and not capable of all-season use. Any temporary re-routing of the cycleway therefore needs to go around the Barford Road side of the quarry where flooding is not an issue. In the unlikely event that the section of Bedford to Sandy cycleway crossing the site is temporarily diverted around the edge of the site to allow the mineral along the former rail corridor to be worked, there would need to be a clause in a Section 106 Agreement to provide for its temporary relocation to an adequate standard followed by reinstatement to the original alignment at the final restoration stage. It should be noted that the cycleway is open to the public by virtue of a various landowner agreements and does not constitute a public right of way.

5.4 Three further National Grid gas pipelines cross part of the site within Dairy Farm. Reinforced pipeline crossing points have been in place during quarrying operations on the back of appropriate consents from National Grid. The pipeline corridors are shown on the proposed layout plan for the plant site along with indicative locations of proposed crossing points. There would need to be a new crossing point for the main internal haul road from the plant site to the extraction area (at the south eastern edge of the plant site). This would follow established engineering details as in place at other crossing points on the Willington Quarry complex. No new lagoons are proposed and the standoff margins to the existing lagoons would remain as current. National Grid has lodged a 'holding objection' at a late stage requesting further details as to how the pipeline would be protected at the crossing point, although it is unclear which crossing point is being referred to. Officers consider that full construction details of the crossing points, whether existing or proposed, could be made the subject of an appropriately worded pre-commencement condition.

5.5 It is considered that the plant site has been designed with sufficient space for the fixed plant, stockpiles and circulation of road going HGVs and other mobile plant movements. The plant site location takes advantage of being a former quarry area filled to a level platform that is 1 metre below surrounding land as the layer of restoration soils have yet to be replaced.

5.6 One objector has raised concerns about the dangers faced by any people gaining unauthorised access to operational parts of the site. Quarry operators must comply with health and safety legislation and take reasonable measures to secure operational areas. Public warning signs would need be placed

in prominent positions where there is an identified risk. The Health and Safety Executive (HM Inspector of Quarries) has not objected to the application.

6.0 RESTORATION AND AFTERCARE

6.1 Section 13 of the NPPF encourages planning authorities to provide for restoration and aftercare at the earliest opportunity and to high environmental standards. Saved MWLP policy GE1 requires applicants to provide sufficient information to enable the planning authority to assess, inter alia, that the restoration and aftercare of the site can be secured and enable an afteruse appropriate to the site and its geographical context. Saved MWLP policy GE26 requires proposals for minerals and waste development to include a high quality restoration within a reasonable timescale. The policy observes that normally this would be for agriculture, forestry, nature conservation, amenity or recreation. The site lies adjacent to the Forest of Marston Vale and the Bedford River Valley Park to which policy CP24 of the CSRIP and policies AD25 and AD26 of the ADLP apply. The site is covered by the Ivel and Ouse Countryside Project (MWLP policy GE4 refers). That part of the site within Bedford Borough falls within Green Infrastructure Opportunity Zone 3 (Lower Great Ouse Valley). These zones reflect those areas where there is the greatest potential to maintain and enhance the multi-functional nature of green infrastructure across the five themes of landscape, historic environment, biodiversity, accessible green space and access routes. Developments are expected to contribute to green infrastructure enhancements, where appropriate, in line with policy CP22 of the CSRIP and saved policy GE21 of the MWLP.

6.2 The overall aim of the submitted restoration strategy is to achieve a balance between reinstatement of Best and Most Versatile agricultural land whilst delivering biodiversity, landscape and green infrastructure benefits. The Wildlife Trust and Forest of Marston Vale are generally supportive of the strategy but correctly point out that there is less provision for wetland habitat creation than was originally mooted when the sites on the Ouse Valley were being promoted in 2008 for inclusion in the emerging Minerals and Waste Local Plan. Officers hold the view however that the scheme put forward attracts broader policy support. It provides multiple benefits for the public and environment through the provision of a suitable mix of afteruses and effectively balances competing land use objectives. Natural England is satisfied that the reclamation proposals meet the requirements for sustainable minerals development as set out in Minerals Planning Practice Guidance. The restoration design principles also find the support of Central Bedfordshire's Ecologist.

6.3 The importation of inert waste is central to delivery of the proposed restoration strategy. It will allow a sizeable part of the site to be reinstated to pre-quarrying levels for productive agricultural afteruse and for the rest of the site to be restored to slightly reduced levels to support the development of marginal aquatic and seasonally flooded areas. If the restoration scheme excluded the import of fill, the site would need to be left as a large lake(s) with limited agricultural restoration. This is not considered to be a sustainable alternative and would not exploit the potential for the site in terms of the balance and quality of restoration afteruses. As the restoration of the site by landfilling with inert waste is judged to contribute to a higher standard of reclamation, the application complies with policy WSP14 of the MWSSP.

6.4 The restoration strategy is in keeping with the aims and objectives of the Ivel and Ouse Countryside Project and the Bedfordshire & Luton Biodiversity Action Plan (BAP). UK BAP priority habitats which are present within Bedfordshire and included within the proposed restoration scheme are flood plain grazing marsh, cereal field margins / conservation headlands, hedgerows, lowland deciduous woodland, wet woodland and ponds / water bodies. The creation of more than 12 hectares of wetland features and grazing marsh / wet grassland represents a sizable habitat enhancement for the Ouse Valley and will complement similar habitats that have been delivered on the Grange Estate and Dairy Farm, which have been incorporated into the Bedford River Valley Park. Whilst the extraction proposals would result in the loss of 1233 metres of generally species-poor hedgerow, this would be replaced with 2068 metres of new and enhanced species-rich hedgerow. There remains a commitment to plant 850 metres of new hedgerow on Dairy Farm, albeit these landscaping works would be delayed by 6 or 7 years until cessation of use of the mineral plant site.

6.5 During the process of determining the application, the restoration strategy was adjusted to reflect the views of consultees, including:

- securing a permanent diversion of Moggerhanger Footpath no. 3 along an existing grassed riverside track (an existing desire line) rather than returning this route to its definitive alignment through the proposed wetland and grazing habitats where ground nesting birds would be vulnerable to disturbance from people and dogs;
- dedication of a new public bridleway from the cycleway to Barford Road to improve future connectivity by helping to resolve a dead end anomaly affecting Willington Bridleway no. 8 (originally proposed as a permissive route);
- an extension of the truncated Public Bridleway no. 23 along the north bank of the Gadsey Brook to close a gap in the right of way network through Dairy Farm (originally proposed as a permissive path only); and
- planting of restored arable field corners and small groups of trees focussed around the river bank to better contribute towards the 30% tree cover target and to create a wooded edge to the Forest of Marston Vale boundary.

6.6 The dedication of additional public rights of ways would help to mitigate for the disruption caused to the path network during the operation of the site and would extend opportunities for public access in the long term in accordance with a raft of policies. Both Council's Rights of Way officers and the Forest of Marston Vale indicate a preference for dedicated routes over permissive paths as they ensure longevity, promotion and maintenance. The dedication of new routes and the standard to which they are laid out would need to be secured through a Section 106 Agreement and follow adopted guidance. The applicant proposes to use powers under section 257 of the Planning Act to permanently divert Footpath no. 3 to the field side track on the south side of the river.

6.7 In conclusion key consultees broadly accept the restoration as being appropriate by making improvements to the ecological networks along the river valley and contributing positively to green infrastructure. Subject to securing a detailed final restoration plan based on the submitted strategy, the development should bring about a long term net gain in biodiversity. The degree of net gain would undoubtedly be increased if the Blunham Disused Railway CWS is left undisturbed and does not need to be re-created. An extended aftercare period of 10 years has been agreed which needs to be formalised through a Section 106 Agreement. Provision is also made within the agreed heads of terms for the planning authority's monitoring costs to be reimbursed. Securing this extended aftercare period will help to ensure the proper establishment of the nature conservation areas. At this stage, the applicant is not prepared to enter into any more permanent arrangement with a conservation organisation, which would clearly deliver greater benefits than currently proposed.

7.0 ECOLOGY AND NATURE CONSERVATION

7.1 Section 11 of the NPPF refers to various ways in which the planning system should contribute to and improve the natural environment including by minimising impacts on biodiversity and providing net gains in biodiversity by, inter alia, the establishment of coherent ecological networks that are more resilient to current and future pressures. If significant harm from a development cannot be avoided, adequately mitigated or, as a last resort, compensated for, then permission should be refused. Proposals on land within or outside a Site of Special Scientific Interest (SSSI) which are likely to have an adverse effect on the site's notified special interest features should not normally be consented except where the development's benefits clearly outweigh the impacts. Opportunities to incorporate biodiversity in and around developments should be encouraged.

7.2 In terms of the development plan, MWLP saved policy GE1 requires mineral applications to provide sufficient information to enable assessment of various matters including any impact on SSSIs, County Wildlife Sites (CWSs), trees, woodlands, hedgerows and other sites of wildlife interest. The site lies within the Ivel and Ouse Countryside Project area where schemes for restoration and afteruse should support the project's long term aims and objectives.

7.3 MWLP saved policy GE10 seeks to protect trees and hedgerows, increasing their cover where appropriate. Saved policy GE12 provides for the protection of locally designated sites stating that permission for proposals which would adversely affect them will only be granted where any such affect is reduced as far as practicable and is outweighed by other benefits. MWLP saved policy GE13 states that proposals that would adversely affect rare or threatened species or their habitats will be refused unless certain tests are met.

7.4 A Preliminary Ecological Assessment (PEA) of the site was carried out in May and July 2016 during which a phase 1 habitat survey was completed. This survey identified the need for detailed species surveys in respect of bats, badger, otter, water vole, reptiles, great crested newts and breeding and wintering birds. All follow-up survey work was completed in 2016 and 2017.

7.5 The baseline review of ecological conditions in the ES states that no nationally designated sites (e.g. SSSIs) lie within 5km of the development area. Nor does the site fall within any SSSI Impact Risk Zones. There are however 12 non-statutory, locally designated sites within 2km of the study area, of which two are on the site itself (Blunham Disused Railway CWS and River Ouse CWS). The PEA notes that the site predominantly comprises arable fields with areas of grassland, bare ground, scrub, woodland and standing water. The arable fields are assessed as being of low habitat value and widely replicated in the surrounding area. Bare ground within the active quarry / landfill area (Dairy Farm) is also assessed as being of low value. The areas of poor semi-improved grassland are assessed as being of local value whereas the botanically-rich field margins and woodland strips are assessed as being of county-level importance. The two CWSs within the red line area and the neighbouring Great Barford Gravel Pits CWS are also judged to be of county value. There are several waterbodies and associated scrub, woodland and field margins within the site and its surroundings with the potential to support great crested newts.

Species impacts and mitigation:

- Bats

7.6 Transect surveys were undertaken on a monthly basis between April and October 2016 to identify the potential for bat roosts and activity. Moderate levels of foraging and commuting bats were found, with the highest levels of activity along the riparian woodland corridor bordering the River Ouse and vegetation surrounding the large fishing lake on the north side of the river. In total seven species of bat were recorded. A single bat roost was identified within a willow along the river bank, with a total of 17 trees recorded as having potential roosting features. The agricultural barn at the northern end of Dairy Farm is in poor condition and is assessed as having negligible risk of hosting a bat roost. Whilst the survey has established that areas of high value habitat exist within the red line boundary, this is assessed as being representative of habitats in the wider area within which the local population will forage. The ecological value for foraging and commuting bats is therefore assessed as being of parish conservation value. In terms of mitigation, it is proposed to establish a buffer around the single tree roost on site so that there would be no traffic within the root protection area of the tree. Trees to be felled which have not been shown to support bat roosts would be felled in accordance with a detailed method statement to minimise the risk of harming bats. No lighting would be used in connection with the river crossing to minimise impacts on nocturnal species. At least 20 bat boxes would be erected on retained trees to provide interim roosting opportunities during the operational period.

- Badger

7.7 A number of setts are present within the survey area and the development would result in the direct and permanent loss and disturbance of badger setts as well as the temporary loss of foraging habitat. The loss of the setts would be permanent but the loss of foraging areas would be reversible within the restoration scheme. In the absence of mitigation, there would be a moderate adverse impact on badgers. The assessment therefore recommends the adoption of a badger mitigation strategy during the course of the works. Measures would be employed to protect setts which can be retained. Where it is deemed necessary to remove a sett, this would be completed pursuant to a Natural England Licence. Prior to restoration of any phase, a badger re-checking survey would be undertaken to ensure that no setts have been created in the working area.

- Otter

7.8 Two potential holt sites were found within the root systems of bankside trees in relative close proximity to the proposed bailey bridge location. Evidence of an otter using one of those sites site was confirmed by remote camera trapping. The site is assessed as being of district value for otter. The species would not be directly impacted by the proposed bridging of the river but there would be temporary indirect disturbance impact to otter foraging and dispersal areas and resting places. In terms of mitigation, an otter checking survey would be undertaken prior to construction and final removal of the bailey bridge structure to ensure no holts are within 30 metres of the working area and a 30 metre buffer would be established around the confirmed holt location. No lighting would be used along the river corridor. Upon completion of development, an artificial holt would be created.

- Great Crested Newt

7.9 Five ponds within the site and a further eight within 500 metres offer potentially suitable habitat for great crested newts (GCN). Environmental DNA surveys carried out at eight ponds all returned positive results, although several of the ponds, including the lagoons, were considered unsuitable for supporting this species due to a lack of vegetation and suitable habitats providing connectivity between waterbodies. Conventional surveys of the ponds recorded no evidence of GCN. The assessment considers it likely therefore that the DNA surveys produced false results due to the potential for contamination of the ponds from large scale quarrying.

- Breeding and wintering birds

7.10 A survey of breeding birds recorded within the site and a 50 metre buffer area counted approximately 179 territories made up of 43 species, with half of those territories within the site boundary. 19 of the recorded species are recognised as being of high or medium (red or amber listed). Accordingly, the site is assessed as being of county importance. A total of 55 wintering bird species were recorded including 13 species of high conservation concern and is similarly assessed as being of county value for over-wintering birds. The extraction and associated mineral processing activities would be likely to result in the displacement of breeding bird territories. Given the extent of similar habitat within the local area, the assessment considers it likely that breeding birds would be displaced into the wider countryside in the short to medium term and return as progressive restoration takes place. Mineral operations, including soil stripping, would reduce the available habitats for birds over the winter season, although the extent of similar habitat in the local area would be such that other resources could be used by wintering birds during the operational phase of the quarry. In terms of mitigation, 40 bird boxes would be installed on site to provide alternative nesting opportunities during the extraction period and in the long term and no vegetation clearance would take place in the main nesting season unless prior checks have been undertaken by an ecologist to confirm the absence of nests.

- Reptiles

7.11 Presence / absence surveys identified the presence of small numbers of common lizard and grass snake within the site to the south of the river. The site is assessed as being of parish conservation value for reptiles as the area of land of value to reptiles is small. High risk habitat for reptiles would be removed in accordance with a method statement to minimise the risk of harming or killing these animals. Precautionary working practices would be adopted during the working phases, with training for site operatives to ensure they are aware of the potential presence of the species.

Habitat impacts and mitigation:

7.12 If the National Grid pipeline is diverted, as assumed by the working scheme, 0.7 hectares of the Blunham Disused Railway CWS would be destroyed (18 per cent of the overall designation). This site is designated on account of its neutral grassland. The habitats along this corridor are not in an optimal condition due to lack of management. In order to compensate for the loss of the semi-improved neutral grassland and lowland habitat which gives the site its wildlife interest, it is proposed to recreate the area during restoration. Central Bedfordshire's Ecologist has commented that the overall level of impact of the scheme would be dependent upon the degree of success in recreating the CWS habitat. The Wildlife Trust has questioned whether the grassland can be re-created as the substrate used in restoration may be different from that present on the old embankment. The Trust therefore recommend that the restoration / management plan for the CWS includes details of the soils to be used together with how the diverse grassland margins could be established and maintained. A condition could be imposed

to this effect. In reality, however, it is very likely that the majority if not all of the CWS would remain undisturbed by the quarry operations. If National Grid elect to retain their pipeline, as is expected, the required standoff margins to protect this infrastructure would effectively also largely protect the CWS.

7.13 The proposals will result in certain direct impacts on a small section of the River Ouse CWS associated with the construction of the bailey bridge. The assessment recommends that all construction works be subject to a detailed method statement in line with industry standard guidelines for working adjacent to watercourses. A Flood Risk Activity permit would need to be obtained from the Environment Agency. During extraction operations a minimum 20 metre protective margin from the river bank would be maintained and no lighting would be installed on the crossing or adjacent areas. In order to compensate for the loss of habitat in the medium term, the ES recommends that a management plan is devised to enhance the diversity of the CWS.

7.14 The scheme would require the clearance of approximately 1233 metres of hedgerow. However, this would be replaced with 2068 metres of new and enhanced species-rich hedgerow on the extraction land. In addition, around 850 metres of hedgerow would be delivered on Dairy Farm in accordance with the existing approved restoration scheme for that land.

7.15 No trees within the site are the subject of a Tree Preservation Order (TPO) and the site is outside any Conservation Area. In response to an EIA Regulation 25 request, the applicant has clarified that the river crossing point would result in the total loss of 4 trees on the northern bank, 3 of which comprise grade 'A' specimens. It is proposed to adopt a 'micro siting' approach to avoid tree loss where possible taking into account detailed engineering aspects of the crossing as well as ecological impacts. Officers are satisfied that sufficient information has been submitted on the question of impacts on riverside trees. A condition for the precise positioning of the bridge could be attached to any grant of permission to allow further input from the respective tree officers to determine the least impact route on the ground. The Council's Landscape officer has highlighted the potential for trees at the crossing point to be cut back to near ground level and allowed to re-grow as coppice. The ES states that retained trees and woodland would be protected through adequate route protection measures in accordance with British standards. As the indicative route of the haul road between the bailey bridge and proposed mineral plant site is shown to run quite close to the A category woodland belt along the north bank of the river and Gadsey Brook, one of the tree officers has sought assurances that the route would be set back sufficiently from this important landscape feature to avoid any impact. There is ample space within this neck of land to accommodate a c6 metre-wide internal haul track whilst allowing for considerable standoffs from the riverside mature tree belt and the plantation on the other side bordering the fishing lake. Furthermore, there is sufficient space for the haul track in Dairy Farm to be set back 10 – 15 metres back from the trees on the bank of Cuckoo Brook. In order to avoid any risk of disturbance to trees alongside the haul road corridor, it would be prudent for the precise alignment of the road to be finalised as an additional element of the condition for detailed siting of the bridge. The Bedford Borough Tree officer has stated that the Council is not intending to serve any TPO with respect to the trees on the north bank of the river and as such the removal of a limited number of trees to install the bridge is considered acceptable. The restoration strategy shows the trees along the banks in the proposed bridge location as being retained or re-planted. Around 2.5 hectares of new broadleaf / wet woodland would be planted as part of the final restoration scheme.

7.16 Some 3.6 hectares of semi-improved grassland would be lost as a result of the development proposals during the operational period, although this figure would be reduced by up to 0.7 hectares if the gas pipeline skirting the Blunham Disused Railway CWS is retained by National Grid. The restoration scheme would provide a total of 12.5 hectares of grassland comprising the re-creation of habitats along the former railway embankment (0.7 hectare), a substantial area of new wet grassland, the reinstatement of the grassland within the access corridor as well as areas of smaller conservation grasslands. Within this total, some 1.6 hectares of new wetland would be created as part of the restoration of the extraction phases closest to the river which have been designed for amphibians, birds and other species to provide long term enhancement. In terms of standing water, one lagoon is to be re-modelled and incorporated into the final restoration design in Dairy Farm as a minor change to the existing approved restoration.

7.17 The Wildlife Trust was instructed by Bedford Borough Council to provide biodiversity advice to assist in the evaluation of the application. The Trust is satisfied with the methodologies used to assess the presence of protected species and species and habitats of principal importance listed in section 41 of the Natural Environment and Rural Communities Act 2006. The Trust note that records of wildlife sightings were obtained from the Bedfordshire and Luton Biodiversity Recording and Monitoring Centre and local bat group. Officers agree that sufficient information has been submitted to enable the potential ecological impacts to be properly understood. The Trust is also content that adequate mitigation measures are included within the application.

7.18 The proposals have the potential to impact on a variety of species and habitats. The potential residual ecological impacts on badger, otter and wintering birds (i.e. post mitigation and compensation) are assessed as being minor adverse and negligible residual impacts are predicted for bats, great crested newts, reptiles, invertebrates and breeding birds (long term). However, minor beneficial residual impacts are predicted in relation to hedgerow, woodland and trees, standing water and semi-improved / wet grassland.

7.19 Officers consider that through appropriate mitigation measures, secured by planning conditions, impacts on species and habitats can be reduced to acceptable levels taking into account the national importance attached to maintaining a steady supply of aggregate minerals. It is considered that a species monitoring and mitigation strategy would need to be submitted in respect of otters, reptiles, badgers and breeding birds as the development is to proceed in phases over a number of years and this might mean that the original survey information, and subsequent impact assessment is out of date and consequently any associated mitigation etc. is no longer relevant. The final restoration of the site has the broad support of key consultees and would provide for the delivery of Bedfordshire and Luton Biodiversity Action Plan priority habitats in the future. An extended 10 year aftercare period to be secured by legal agreement would provide for the successful establishment of the nature conservation afteruse areas, including the Blunham Disused Railway CWS. Accordingly it is considered that the application accords with the NPPF which states that 'the planning system should contribute to and enhance the natural and local environment by...minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures. The development is also judged to be compliant with saved Policies GE1, GE10, GE12 and GE13 and meets the sustainability objectives of MWSSP policies MWSP1 and MWSP3.

7.20 Objector comments make reference to the disappearance of the small patch of woodland to the left of the lock and the resulting harm that would be caused to wildlife, including uncommon birds. This area of woodland lies outside the red line area, some 400m from the proposed extraction site boundary and around 50 metres from the proposed haul road which lies on the opposite side of Gadsey Brook. The woodland is therefore not directly impacted by the development proposals.

8.0 LANDSCAPE AND VISUAL IMPACTS

8.1 The NPPF advises that the planning system should contribute to and enhance the natural and local environment by, amongst other things, protecting and enhancing valued landscapes. MWLP saved policy GE1 requires planning applications to provide adequate information in respect of a range of topics, including operational impacts on the landscape. Saved policy GE9 requires proposals to be sympathetic to local landscape character and states that development which is likely to have an adverse effect on an area's landscape character will only be permitted where any such adverse effect is reduced as far as practicable and is outweighed by other planning benefits. Complementary policy advice can be found in saved policy GE4 of the MWLP which aims to improve the environment of the Ivel and Ouse valleys. In accordance with saved policy GE10, proposals should seek to retain and, where desirable, increase overall tree and hedgerow cover and proposals that would result in harm to trees and woodland should not be permitted unless such harm is reduced as far as practicable and is outweighed by other planning benefits of the proposal. Policy CP24 of the CSRIP states that the landscape of the Borough will be conserved and, where appropriate, enhanced. Supplementary planning guidance exists in the

form of Landscape Character Assessments (LCA), with both authorities having up to date LCA publications. The site is within the Great Ouse Clay Valley character area (4A) where there is a strategy for enhancement, especially the reinstatement of traditional riverside features.

8.2 The ES includes a landscape and visual impact assessment (LVIA) which has evaluated the landscape and visual effects of the proposals. The assessment considers the effects on the landscape and amenity during the operational phase and those following final restoration. In the light of an initial desk-based survey, and the production of a Zone of Theoretical Visibility (ZTV), the study area was limited to a radius of 1.5km for visual effects and 2km for landscape effects.

Landscape effects -

8.3 The LVIA considers that the overall effects on the landscape of the site are not significant, having a balance of both adverse effects during the quarrying and beneficial effects upon delivery of restoration, on a site and setting of medium - low sensitivity. Landscape mitigation incorporated into the design of the working scheme is based on the implementation of a phased programme of working which seeks to minimise the amount of disturbed land at any one time. The restoration strategy aims to respond to local landscape character by delivering a mix of productive agriculture with nature conservation and recreation afteruses on land returned to a similar topography. New water bodies would be focussed on the river corridor and lost hedgerows would be reinstated to reinforce landscape structure through the creation of large or medium scale geometric fields.

Visual effects -

8.4 The potential interactions between the proposal and visual receptors are the haul road; mineral washing plant (7 metres-high); concrete batching plant (12 metres- high); removal of on-site vegetation; soil stripping with excavator plant; grassed soil mounds at the site perimeters; landfilling with inert waste using tipper lorries and mobile plant; large expanses of exposed sand and gravel or inert fill; soil spreading with excavators and dozer machines; cultivation of final surfaces and seeding and planting operations. The LVIA identifies a number of mitigation measures that are incorporated into the overall scheme design to reduce visual effects. The sand and gravel processing plant and concrete batching facility would be positioned on currently disturbed land that is a minimum of 5 metres (and generally around 10 metres) lower than St Neots Road. Local topography would thus increase the effectiveness of temporary grassed soil bunds and natural screening provided by the established roadside hedgerow and block of woodland opposite Cuckoo Brook Cottage. The amount of hedgerow lost on the road frontage would be limited to the actual access road width and margin. At the point where the proposed junction breaks through the hedge, and allowing for the access bellmouth and kerb radii, the access road would be 21 metres wide at its widest point. Having regard to the possibility of severed roots and road construction requirements, it is assumed that up to 25 metres of hedgerow would be lost. No structural vegetation would need to be removed to provide the required visibility splays. There is no need for the retention of the quarry access at the end of the quarry development as Dairy Farm is served by other field entrances.

8.5 Turning to the extraction area, a 2.5 metre-high perimeter soil bund would be formed alongside Barford Road until the final operational phase. The applicant has taken note of residents' concerns by extending this bund as far as practicable along the western boundary without encroaching upon the flood plain. It too would remain until the latter stages of the working programme. This additional bunding would be of some benefit for residents in the Mill Farm area of Willington and would reduce views for users of the cycleway when approaching from the Danish Camp direction. Good management of grass cover on the bunds would help to ensure they have a less incongruous appearance. Advance planting of sections of hedgerow and hedgerow trees along the western and southern boundaries of the extraction area, where vegetation is absent or gaps exist, is proposed at the site preparation stage, although this would not soften views in the short term. The haul road linking Dairy Farm to Willington Lock would be sandwiched between woodland belts so as to restrict distant views from the north and north east.

8.6 Of the 16 viewpoints examined in the LVIA, visual effects of major / moderate significance are predicted from the following locations during the operational life of the site:

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- Renhold Footpath no. 23 next to Gadsey Brook (less than 500 metres to the south west of the proposed mineral plant site);
- Barford Road next to the south eastern end of the proposed extraction area where there is no existing roadside hedgerow (advance hedgerow planting proposed) and the proposed screen bund would not extend far enough east due to flood plain restrictions;
- on Footpath no. 3 (Ouse Valley Way) which is proposed to be diverted alongside the river and therefore run close to the northern limit of extraction in phases 3 and 4 and pass beneath the bailey bridge ramp; and
- in the vicinity of Willington Lock approximately 300 metres to the west of the proposed extraction boundary.

8.7 The assessment found that the major / moderate effects would be localised (within 500 metres of the site) due to the degree of natural screening in the area. The visual effects at other viewpoints during working operations are assessed as being minor or negligible. Nine of the selected viewpoints were judged to offer no view. At the point of restoration, moderate adverse effects are predicted for the Ouse Valley Way and Willington Lock receptor viewpoints. In the long term (15 years post restoration), however, the visual effects are mainly slightly beneficial or neutral. The benefits would result from a net gain in hedgerow and tree planting where hedgerows have been degraded or lost. The LVIA concludes that the site would assimilate well into the local landscape in the longer term when the trees and hedgerow mature. Officers consider that the placement of nature conservation areas in an extended 10 year period of aftercare should enhance the appearance of the site as sympathetic management is more likely to bring positive visual effects over time.

8.8 The applicant has given consideration to the potential visual impact of the site during hours of darkness. During the morning start up and after 4pm during the winter months, the risk of accidents is heightened. Outside of these hours of operation, there would be no need to use lighting. Other than those lights fitted as standard equipment to mobile plant, there would be no other lighting provided within the quarry extraction / infilling area. For health and safety reasons, there would be a requirement to illuminate the processing plant and halogen lights (facing downwards) would be attached to the plant's steelwork for operation during hours of darkness in the winter months. In order to provide employee safety, the area of car parking would be illuminated using a pair of focussed spotlights to be angled downwards from the quarry office / weighbridge buildings. Each would incorporate a movement sensor such that, even during the winter months, these lights would not activate unless they detect movement and for around 90 percent of the time they would be in shut off mode. It is concluded that the impact of lighting would be limited and can be adequately controlled by condition.

8.9 In conclusion it is considered the overall landscape effects of the development are not significant. Whilst there would certainly be an adverse impact due to landscape change whilst the site is in operation, this would be relatively short lived and the proposed restoration strategy has regard to local landscape character and the strategy for enhancement in the LCA. Importantly, the mature willows and woodland defining the line of the River Ouse and Gadsey Brook would be preserved barring the loss of up to four trees to accommodate the bailey bridge crossing. As discussed in the preceding section of this report, a micro siting approach is recommended for the bailey bridge and connecting haul road to ensure a high standard of protection for valuable riverside trees and tree belts. In addition, a site specific Arboricultural Method Statement would need to be agreed to ensure root protection of trees and hedgerows. Central Bedfordshire Council's Landscape officer notes that this stretch of the river valley east of Willington sits within a changing landscape influenced by historic sand and gravel workings on adjacent land at College Farm and Willowhill Farm. These areas were restored to agriculture and fishing lakes in the mid-1980s and early 1990s and have integrated well into the landscape. Moreover, wetland habitats are coming forward as part of the wider Dairy Farm restoration. The Willington Lock development would undoubtedly give rise to temporary adverse visual impacts occurring within fairly close proximity to the site, especially as a result of the bailey bridge construction. The causeway formed by the old railway embankment is lined by a number of trees which would be largely retained in the event that National Grid elect to retain the gas pipeline, as is believed to be highly likely. Whilst this outcome is not assumed by the applicant, it would clearly mean that the landscape and visual impacts are lessened. Negative visual impacts would diminish as the complex is progressively restored and the site matures. When such levels of assessed impact are weighed against the national importance attached to

a steady supply of aggregate reserves for the construction market, in this case from an allocated site, and account is taken of operational life of the site and enhancements that would be delivered through the restoration plans and a 10 year aftercare programme, it is judged that the application finds support under MWLP policies GE9 and GE10. The application is also considered to comply with Policy CP24 of the CSRIP.

9.0 AGRICULTURE AND SOIL RESOURCES

9.1 Section 11 of the NPPF identifies a number of ways in which the planning system should contribute to and enhance the natural and local environment including protecting and enhancing soils. Section 11 also encourages local planning authorities to take into account the economic and other benefits of the best and most versatile (BMV) agricultural land and, where significant development of agricultural land is demonstrated to be necessary, preference should be given to the use of poorer quality land. A feature of minerals development, however, is that resources can only be worked where they are found, a point the NPPF recognises in section 13. Saved MWLP policy GE1 requires applicants to provide sufficient information to enable the nature and duration of any effects on the extent and quality of agricultural land and any other potentially disruptive effect on agriculture to be assessed. Saved MWLP policy GE6 seeks to protect BMV agricultural land defined as Grades 1, 2 and 3a of the Agricultural Land Classification.

9.2 The EIA includes a Soils and Agricultural Land Classification Report, which is a consolidation of a detailed survey undertaken by the Ministry of Agriculture Fisheries and Food (MAFF) in 1992, and a supplementary survey conducted in April 2017 to validate the MAFF report and extend the survey area to cover the access corridor connecting Willington Lock to Dairy Farm. The report shows that 13.7 hectares of the proposed extraction area comprises BMV (sub grade 3A) land with the balance of 18.2 hectares classified as 3b. The 4.7 hectare access corridor connecting Willington Lock to Dairy Farm is classified as grade 3b.

9.3 The main effects of quarrying the site relate to moving soil from its existing position to either a new location via direct placement or as part of restoration works, or to an interim storage location prior to final spreading in the restored profile. The phased working and restoration programme has been designed to ensure that all grade 3a soils are handled separately and are available in the correct sequence to restore a single parcel of BMV land on the south side of the reinstated / retained cycleway and a separate smaller field to the north of the cycleway. The BMV land would be restored to original ground levels and the existing drainage outfall to the western ditch would be maintained. The report recognises that the arable fields would probably need to be artificially drained during the aftercare period. The lesser quality grade 3b soils would be utilised to support the floodplain grazing marsh, wet grassland and aquatic margins. These biodiversity enhancements would be at the expense of 13.1 hectares of non-BMV (grade 3b) agricultural land. In terms of the access corridor land, soil stripping would be limited to the route of the haul road itself (c.6 metres) so the majority of the field would remain undisturbed and could continue to be managed as a grass meadow during the operation of the site.

9.4 In addition to the mitigation embedded in the scheme, the report makes various recommendations in terms of how soils are protected and handled. These include stripping to use an excavator and dump truck method to a thickness of 300mm; no handling when soils are in a plastic (wet) state or during heavy rain; transport of soils on specific haul routes along the mineral surface or restoration platform; use of a geomembrane to separate the defined lower subsoil and clay upper subsoil; restrictions on storage bund heights and keeping such bunds grassed and maintained by regular cutting. Further recommendations are made in terms of soil reinstatement methods including using a loose tipping technique to avoid trafficking over replaced soils.

9.5 Notwithstanding the data already available, the report recommends a detailed audit of the stripping areas in advance of each extraction phase to identify variability of soil layers and the boundaries between different soil types. This would inform the volumes of temporary soil bunds and target soil profiles for restoration. Regular survey information would help to ensure there is no net loss of BMV land following restoration. Natural England is satisfied that the Soils and Agricultural Land

Classification Report constitutes a record of the pre-working physical characteristics of the site and that, subject to imposition of conditions, the working and reclamation proposals meet the requirements for a sustainable minerals development as set out in the NPPF and Minerals PPG. The scheme also demonstrates that the development can be carried out in a manner that preserves the long term agricultural quality of the BMV land in accordance with saved policy GE6 of the MWLP. Although there would be the loss of the grade 3b land, a mixture of afteruses would bring multiple benefits for the environment. Planning conditions could ensure that soil resources are appropriately managed in accordance with relevant policy. The mineral plant site land is covered by an existing approved scheme of soil handling / movements covering the wider Dairy Farm Quarry. A condition can be imposed on any grant of permission to ensure that these details are applied to the new site so as far as they are relevant.

10.0 HYDROLOGY AND HYDROGEOLOGY

10.1 Section 13 of the NPPF states that minerals planning authorities should ensure that, in granting planning permission for mineral development, there are no unacceptable adverse impacts on the natural environment. For landfill development, the NPPW advises that decision-makers should have regard to geological conditions and the behaviour of surface water and groundwater, flooding and potential risks posed to water quality from contamination. At the local level, the following saved MWLP policies are pertinent:

- Policy GE17 stipulates that permission will not be granted for minerals and waste development proposals that are likely to carry a significant risk of contaminating land or polluting watercourses or groundwater at levels which exceed statutory pollution and emission controls.
- Policy GE20 of the MWLP weighs in support of development where it would not have an unacceptable impact on the quality and quantity of groundwater and / or surface water drainage.

10.2 Section 10 of the NPPF advises that, when determining planning applications, flood risk should not be increased elsewhere and only consider development appropriate in areas at risk of flooding where, informed by a site-specific flood risk assessment. Saved policy GE19 of the MWLP seeks to resist proposals in flood plains or flood risk areas where they would significantly reduce the capacity of the flood plain or impede the flow of flood water thereby increasing the risk of flooding elsewhere.

10.3 The proposals have the potential to directly impact on the water environment in the following ways:

- impact on groundwater levels and flows;
- derogation of surface water levels and flow rates;
- derogation of existing groundwater quality;
- derogation of surface water quality; and
- increase in extant flood risk.

10.4 The above potential primary impacts may, in turn, lead to secondary impacts upon:

- the volumes and quality of water available to existing groundwater and / or surface water abstractions; and
- the volumes and quality of water available to support floral and faunal habitats.

10.5 The ES includes a Hydrological and Hydrogeological Impact Assessment and Flood Risk Assessment. The proposed extraction site is located above a Secondary A Aquifer of River Terrace Deposits consisting of highly permeable sands and gravels. The base of the Aquifer is formed by low permeability aquicludes (Boulder Clay / Oxford Clay) which form a barrier to groundwater flow and effectively hydraulically isolate the site from underlying strata. The sands and gravels underlying the extraction site are classified in terms of groundwater vulnerability as 'minor aquifer, high vulnerability'. Groundwater elevations typically fall towards the River Ouse.

10.6 Much of the proposed mineral plant site area on the Dairy Farm landholding is located in an area where the Aquifer has been removed through recent quarrying operations, with this area having been infilled with inert waste. These materials are assumed to be of low permeability and are not anticipated to hold any significant aquifer properties.

10.7 In common with historic workings that make up the Wellington complex, mineral extraction would take place below extant groundwater level. Dewatering would therefore be necessary to maintain dry working conditions. The full thickness of the sand and gravel deposit would be removed requiring dewatering to a maximum depth of 4.2 metres. As site restoration would be progressive, the maximum area requiring dewatering at any one time is estimated to be 17.4 hectares. Groundwater lowering due to dewatering will propagate radially away from the workings. As a worst case assessment, the applicant estimates that the lateral extent within which groundwater levels would be impacted by dewatering is 96 metres. Groundwater levels within this radius of influence would be lowered with groundwater flows being induced towards the workings. The assessment suggests that the magnitude of dewatering impact upon groundwater levels and flows decreases rapidly with increasing distance from the dewatered area and that any such impact would only persist while dewatering operations are in progress. Although the Environment Agency consider that the 96 metre radius of influence is an underestimate, they are satisfied with the applicant's suggested approach of dealing with any impacts by way of a hydrometric monitoring scheme (HMS). This would need to include provision for monitoring of groundwater levels across the existing piezometer network and within certain abstraction wells. It is argued that the collection and periodic review of data collected under such a scheme would allow any impacts at sensitive receptors (e.g. licensed and private water supply abstractions) to be identified and mitigation measures to be formulated and implemented in the event of any significant derogation of groundwater level or flows. Mitigation could include clay battering of the temporary excavation faces or provision of alternative water supply. A condition could be framed accordingly.

10.8 Mineral extraction areas would be restored at or below original ground levels using imported inert fill materials of low permeability. Due to the presence of infill material to the full thickness of the Aquifer, the assessment identifies that potential exists for this material to form a barrier to groundwater flow and for groundwater to flow around the infilled areas rather than towards the river. The reduced Aquifer flow-field created by mineral extraction implies that hydraulic gradients would increase in order to accommodate the rate of groundwater flow. Increase of the hydraulic gradient dictates that groundwater levels would be raised on the up-gradient (south western) side of the infilled area. Whilst the assessment considers that any resultant impact on groundwater levels / flows would be highly localised since the scale of the area proposed to be infilled is minor relative to the Aquifer as a whole, it is concluded that groundwater levels should be monitored on the south western side of the infill land prior to, during and following restoration works as a component of the proposed HMS. This would enable any impact upon groundwater levels and flows that may result from the introduction of low permeability fill below the water table to be identified and the implementation of suitable mitigation measures such as installation of groundwater cut off drains.

10.9 Where the radius of influence of dewatering operations intercepts surface water features, there is potential for the direct derogation of levels or flows within them. It is the applicant's intention for water from the dewatering operations to be discharged to the River Ouse within the terms of an Environmental Permit. The ultimate destination of intercepted waters would thus be unchanged from the present position. The assessment concludes therefore that significant impacts upon surface water levels / flows within the river as a result of dewatering operations are unlikely to occur. A lake managed by the Shefford and District Angling Association (SDAA) is located some 72 metres to the east of the proposed mineral extraction area and is therefore within the maximum estimated radius of influence of dewatering. It is argued in the assessment that any derogation of levels within this lake would be transient, being limited to the period of dewatering in the eastern quarry phases. The magnitude of groundwater drawdown at this distance is not estimated to be substantial (0.4 metres). However, it is recommended that monitoring of surface water levels within the SDAA lake, and any necessary mitigation actions (e.g. pumping of compensatory flows), be incorporated into the proposed HMS. This would necessitate some baseline monitoring prior to operations to establish trigger levels against which quarry-related impact may be gauged. It is also recommended that other surface water features are brought within the HMS regime, including the Blunham Angling Club lake on land to the east of the proposed plant site, although dewatering related impact upon these other features is not anticipated.

10.10 The runoff characteristics of the plant site area upon final restoration would be in accordance with those envisaged by the existing approved restoration plan for Dairy Farm, with all waters ultimately being

routed to the River Ouse via the Gadsey Brook. The post-restoration landform for the proposed extraction land would continue to drain northwards to the River Ouse as is currently the case. The assessment does not anticipate any significant potential for derogation of surface water levels / flows as a result of the alteration of runoff routes / rates post restoration.

10.11 The imported restoration materials would be inert (principally soils, clays and rubble) and should not form a significant contaminant source to extant groundwater quality. An Environmental Permit would be required for the infill operation, which would contain detailed pollution controls and monitoring obligations to ensure protection of groundwater within the Aquifer. The accidental or undetected spillage of potential contaminants such as fuels and oils poses a potential risk to groundwater quality. In recognition of the potential for impact, the applicant has devised a fluids handling protocol in order to minimise the risk.

10.12 An area of the Dairy Farm landfill underlies part of the application site. Fill has been imported and deposited to a typical thickness of 3 metres to leave finished tipping levels, although filling has not been completed over the full area available as voids have been left in anticipation that these will be permitted for use as settlement and clean water lagoons. This landfill has exclusively received inert fill (clays and rubble) within the constraints of an Environmental Permit. The establishment of facilities and internal roadways associated with the new mineral processing plant and movement of plant and vehicles during its operation would result in physical disturbance of the inert material. However, as the infill material is of low permeability and underlain by an aquiclude, it is isolated from contact with groundwater upon the margins of the infill. The assessment includes a review of groundwater and surface water quality sampling and sub-surface gas monitoring data produced in accordance with the landfill Permit and concludes that the risk to the water environment posed by the impact of the proposed mineral plant site on the potential contaminant pathway associated with the landfill site is not significant. The Council's Contaminated Land officer agrees that there are no risks to human health from a water resources perspective. However, it is recommended that the present regime of groundwater and surface water quality monitoring be included within the proposed HMS.

10.13 Dewatering and discharge activities are regulated by separate permitting regimes. The discharge of dewatering waters would be necessary to allow the draining and clay lining of the silt lagoon in preparation for use and to allow the quarrying of sand and gravels below the water table. The ES states that these water discharge activities would be conducted within the constraints of an existing Environmental Permit held by the applicant as operator of the Dairy Farm site. It is acknowledged that the permit would need to be varied to accommodate discharge of waters from the southern mineral extraction area to the River Ouse. The assessment concludes that the discharge of waters from the site would not pose significant risk to surface water quality.

10.14 The Environment Agency has questioned whether the phased restoration scheme is feasible as there is no information to demonstrate the availability and locations of naturally occurring impermeable clay material to construct engineered side slopes and how this will translate to phasing of landfill cells. Whilst the Agency's comments are noted, this is very much a technical matter that should be dealt with as part of the permitting process through the submission of CQA validation reports. It should still be possible to comply with the phasing sequence shown on the working plans even though the landfill cells would probably have a more compact layout.

10.15 The Flood Risk Assessment (FRA) identifies the proposed extraction area as principally lying within an area designated as Flood Risk Zone 3 associated with the River Ouse. Areas defined as Flood Zone 3 have a risk of flooding of 1 in 100 or greater in any given year. A small portion of the extraction land is located within Flood Risk Zone 2 (with a risk of flooding of between 1 in 1000 and 1 in 100 in any given year). The south and south western sides of the site fall within Flood Risk Zone 1 (having a fluvial flood risk of 1 in 1000 or less in any given year). In terms of the proposed haul road corridor and mineral plant site on the north side of the River Ouse, the southern end falls within Flood Risk Zone 3 whereas a significant portion lies within Flood Risk Zone 2. The higher ground at the northern end of the plant site area is identified as Flood Risk Zone 1. The sequential test has been followed in line with the advice set out in the NPPF to justify the appropriateness of the proposals.

10.16 The FRA assesses flood risk from groundwater, fluvial sources and incidental rainfall and sets out mitigation measures in order to demonstrate that all relevant risks have been suitably taken into account as part of the design process. The void space created by progressive extraction would increase net storage volume available for the accommodation of flood flows during the operational phase. Additionally, the working scheme avoids the positioning of soil storage mounds within the functional flood plain. Restored ground elevations would be at or below pre-quarrying levels. The depressions and water bodies in the low level floodplain grazing marsh and wet grassland area would have engineered drainage in view of the potential for increased run off rates due to the low permeability infill material and due to the need to maintain typical water levels of 17.5 metres AOD. Outflow would be limited to pre-development greenfield runoff rates. Full details of an effective drainage system, together with a maintenance plan, could be secured by condition. The FRA concludes that the quarrying and restoration proposals represent 'water compatible' activities and that flood risk off-site would not be significantly impacted by the scheme. The Environment Agency raises no objection with respect to flood risk but emphasises the need for the mitigation measures in the FRA to be adhered to. This could be secured through an appropriate condition. The proposals are considered to comply with relevant national and local policy on flood risk.

10.17 In overall conclusion, it is considered that sufficient information has been provided to demonstrate that there would not be an unacceptable impact on water resources provided that appropriate conditions are in place. Whilst the proposed hydrometric monitoring scheme condition would to a certain extent duplicate the requirements of other regulatory regimes, it is considered important in the context of the EIA Regulations that the Local Planning Authority has the ability to assess the operational effects of the development against the predicted effects in the ES. The development is judged to accord with the NPPF and NPPW and saved General and Environmental policies in the MWLP.

11.0 NOISE

11.1 The NPPF states that when determining applications for minerals development, local planning authorities should ensure, inter alia, that any unavoidable noise is controlled, mitigated or removed at source and that appropriate noise limits for mineral operations are established in proximity to sensitive properties (paragraph 144). More detailed technical guidance on determining the impact of noise from quarry sites and setting appropriate noise standards can be found in the Minerals PPG. At paragraph 019, it states that mineral planning authorities should take account of the prevailing acoustic environment and in doing so consider whether noise from the proposed operations would:

- give rise to a significant adverse effect;
- give rise to an adverse effect; and
- enable a good standard of amenity to be achieved.

11.2 In terms of appropriate noise standards for mineral operations, paragraph 021 of the Minerals PPG states the planning authorities should aim to establish a noise-limit, through a planning condition, at the noise-sensitive property that does not exceed the background noise level (LA90, 1hr) by more than 10dB(A) during normal working hours (0700 to 1900 hours). In any event, the total noise from operations should not exceed 55dB(A) Laeq, 1hr (free field). With respect to short term activities, the guidance goes on to state at paragraph 022 that increased temporary daytime noise limits of up to 70dB(A) Laeq, 1hr (free field) for up to 8 weeks in a year at specified noise-sensitive properties should be considered to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear this will bring longer term on-site or local environmental benefits. These are not fixed thresholds as specific circumstances may justify some small variation being allowed.

11.3 The locational criteria in Annex B to the NPPW advises that waste planning authorities should have regard to proximity of noise-sensitive receptors when determining applications for new waste management development. In terms of the development plan, saved Policy GE18 of the MWLP states that minerals and waste proposals which are likely to generate disturbance by reason of noise will only be granted where the impact of such disturbance is reduced as far as practicable and is outweighed by

other benefits of the proposal. Additionally, Policy BE30 of the BBLP requires the Council to have full regard to noise impacts generated by new development.

11.4 The submitted noise assessment has considered the noise levels predicted to arise from the operations at the nearest sensitive receptors based on a six phase working programme. In order to reflect a worst-case scenario, it has been assumed that all operations are taking place simultaneously in each phase with mobile plant carrying out extraction and restoration works at the closest approach to receptors or in locations where attenuation provided by the quarry face is at a minimum. The movement of inert waste tipper vehicles in the infill area and operation of fixed and mobile plant and movement of HGVs within the processing yard has also been factored into the assessment. A baseline noise survey was undertaken in March 2017 to measure the existing noise climate at the seven locations identified as representing the closest noise-sensitive properties in the vicinity of the development site. Only daytime measurements were taken as the proposed operational hours (0700 to 1800 hours on weekdays and 0700 to 1300 hours on Saturdays) fall within the daytime period defined in the Minerals PPG.

11.5 The calculations indicate that the predicted daytime noise levels during all operational phases would be below the recorded background level at six of the seven identified receptors. However, the noise model indicates a noise level of 57dB(A) Laeq, 1hr at Cuckoo Brook House during phases 2 and 3 of the development assuming a worst case maximum of 40 HGV movements in one hour during the morning peak period. There would therefore be a short term exceedance of +3dB above background and the Minerals PPG daytime criterion of 55dB(A) Laeq, 1hr would not be met. For the remainder of the day, noise levels at Cuckoo Brook House are predicted to be equivalent to background levels (54dB(A) Laeq, 1hr). The assessment notes that this property is predominantly influenced by the number of HGVs entering and leaving the site being the closest receptor to the access road. Whilst recognising that such levels may not actually be experienced at this property as this is very much a worst case scenario, the applicant has taken on board officers' advice and produced indicative details of screen bunding, some 2.5 metres in height, beside the initial stretch of the internal access road. The applicant states noise attenuation within a range of 5dB to 10dB would be likely to be achieved at Cuckoo Brook House. The Council's Environmental Health officer considers that such reduction in noise is what would be expected. As there is a reasonable degree of certainty that the criterion level of 54dB(A) Laeq, 1hr can be met, a condition could be imposed to secure details of the precise footprint and height of the bund accompanied by calculations from a re-run of the noise model.

11.6 The fixed plant and stockpiling area would be largely screened from Cuckoo Book House by existing and proposed soil stores and site topography. In the southern part of the application site, mobile plant located within the quarry void is predicted to have less contribution to resulting noise levels being further away from receptors.

11.7 In relation to temporary operations, the predicted daytime noise levels are considerably below the higher limit of 70 dB(A) Laeq, 1hr at all receptors. As the Minerals PPG is based on the assumption that short term noisy activities such as bund construction and soil stripping / spreading would not last longer than 8 weeks in any given 12 month period, the assessment states that the lower limits derived from the measured background noise levels have been used to present a worst-case scenario.

11.8 Based on the calculated operational noise impacts at all receptors, with the exception of Cuckoo Brook House, specific mitigation measures to reduce noise impacts are not proposed other than those incorporated into the site design. The application refers to various best practice measures which would be employed across the site to assist in minimising potential noise emissions. These include ensuring internal haul roads are kept in a good state of repair; regular maintenance of plant and machinery fitted, where appropriate, with exhaust silencers; avoiding unnecessary revving of engines; minimising material drop heights and switching off equipment when not in use. The applicant has also given a commitment to refrain from using tonal reversing alarms in preference for broadband systems.

11.9 It is concluded that even when applying a worst-case assessment, noise levels arising from normal and temporary operations are not predicted to exceed the relevant limits. The proposed mitigation measures, observing best practice and adherence to operating hours, indicate that the development can be carried out without causing unacceptable noise impacts. The respective Public

Protection and Environmental Health officers for each authority have reviewed the noise assessment and, subject to the imposition of various conditions, raise no objection. A programme of noise monitoring would need to be implemented in accordance with a scheme to demonstrate compliance with noise standards derived from the Minerals PPG, with provision for additional mitigation measures to be introduced in the event that any exceedances are confirmed. Accordingly, the application is considered to accord with the NPPF, Minerals PPG, NPPW, saved policies GE1 and GE18 of the MWLP and other planning benefits would be realised as discussed in the other sections of this report. The application is also acceptable with respect to saved policy BE30 of the BBLP.

11.10 Objections have been received citing concerns over the lack of a screening bund or fence between the western boundary of the extraction area and dwellings on the edge of Willington and that without a barrier the works will give rise to adverse noise and dust pollution. The properties in question are located approximately 400 metres from the edge of the extraction area and the noise assessment does not identify the need for any attenuation on this boundary as operational noise levels are predicted to be 7 or 8dB below derived daytime noise limits at Mill Farm. The applicant accepts however that there would be benefits in establishing an additional topsoil screen bund along the western side of the quarry and a revised working drawing has been submitted to reflect such an arrangement. The length of the bund in a northerly direction is constrained by the need to avoid storing soils within the floodplain but the length shown should provide an effective screen for properties to the west. It would remain in place from the site establishment stage until the final phase of restoration. Further concerns have been expressed with respect to elevated noise emissions from plant and lorries crossing the metal deck of the bailey bridge. During routine monitoring of the Dairy Farm landfill site, officers have not noticed significant clanging noises from use of the bailey bridge. The applicant has suggested however that rubber conveyor belting could be placed on the bridge's metal decking to absorb lorry noise.

12.0 AIR QUALITY

12.1 The NPPF notes that the planning system should contribute to and enhance the natural and local environment by, amongst other things, preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of air pollution. MWLP saved policy GE17 refers to pollution control and states that permission will not be granted for minerals and waste development which is likely to carry a significant risk of contaminating land or discharging pollution to the atmosphere. Saved policy GE18 confirms that permission for such proposals which are likely to generate disturbance from dust, fumes and gases will only be granted permission where the impact of any anticipated disturbance is reduced as far as practicable and is outweighed by other planning benefits.

12.2 When determining applications the NPPF advises planning authorities to ensure that any unavoidable dust and particle emissions are controlled, mitigated and removed at source. The Minerals PPG sets out advice on how mineral operators should seek to minimise dust emissions through the production of a dust assessment study.

12.3 Such an assessment has been prepared in support of the application following the methodology in the Institute of Air Quality Management (IAQM) publication 'Guidance on the Assessment of Mineral Dust Impacts for Planning' (2016). The IAQM method advocates a quantitative risk-based approach based on the source-pathway-receptor model. The IAQM guidance screening distance for sand and gravel quarries is 250 metres and therefore receptors outside of this distance have been excluded from the assessment on the basis that significant impacts can be screened out. The five receptors considered in the assessment of dust amenity impacts are all residential, namely Dairy Farm, Cuckoo Brook Cottage, Cuckoo Brook House, Brutus Barns and Old Mills Cottage. Three ecological receptors (Blunham Disused Railway CWS, Great Barford Gravel Pits CWS and the River Ouse CWS) were also assessed.

12.4 The assessment identifies the following three potential impacts associated with fugitive dust emissions:

- nuisance from dust soiling;
- risk of health effects due to increased concentrations of PM10 (particulate matter of a diameter less than or equal to 10 micrometers (microns)); and
- harm to ecological receptors.

12.5 The study notes that certain activities, including the stripping of soils and overburden, replacement of soils, bund construction, haulage of minerals / inert waste on unpaved roads and stockpiling of mineral pose a moderate or high risk of dust generation in the absence of mitigation, with considerable daily variations depending on the level of activity and meteorological conditions. Sand and gravel would be excavated at the face using a hydraulic excavator or face shovel. Given the level of the water table and the need for de-watering prior to extraction, the sand and gravel will retain a high moisture content which will inhibit dust generation. However, potential exists for particles to become airborne if allowed to become dry and friable. The sand and gravel processing plant would screen and grade the mineral using a wet methodology and as such should not normally result in the release of particulate matter except in very minor quantities. The concrete batching plant may potentially generate dust and the handling, storage and processing of the cementitious material feedstock is a source of PM10 emissions. A Local Authority Environmental Permit would be required to operate this plant.

12.6 The magnitude of the predicted dust amenity effects at each receptor has been assessed based on receptor sensitivity, meteorological conditions in terms of rainfall, wind speed and direction, the existing pathways between the site and receptor and features such as existing woodland which would reduce the potential effects. The assessment concludes that the dust impact risk at all receptors is negligible. At ecological receptors, the dust impact risk is identified as low.

12.7 In terms of the extent to which operation of the quarry might contribute to a deterioration in air quality, taking into account the low background concentrations of PM10 at the application site, the nature of the operations proposed and the nature of the mineral being excavated, the assessment concludes there is very little potential for site operations to cause a breach of either the 24-hour or annual objectives for PM10. Neither authority has designated Air Quality Management Areas (AQMAs) for PM10. AQMAs have been designated for nitrogen dioxide (NO2) annual mean concentrations, but as the closest of these are in Bedford and Sandy, it is judged that neither AQMA is likely to be affected by traffic from the development. The predicted change in NO2 and PM10 concentrations as a result of vehicle exhaust emissions from development traffic has been modelled and is predicted to be negligible at all selected receptor locations along or in close proximity to St Neots Road.

12.8 On the basis of the risk assessment undertaken, it is recommended that site operations be undertaken in line with standard industry best practice. This would include staff monitoring for potential or emerging dust generation events to inform contingency measures, use of water suppression on haul roads and during extraction / materials handling, enforcement of speed controls, minimising material drop heights and fitting arrestment plant and automated overfill alarms to cement silos. A number of specific mitigation measures have been incorporated into site layout and phasing including soil screening bunds / mounds, siting of the plant site in an area that benefits from natural screening provided by a belt of trees and allowing a buffer of greater than 100 metres and surfacing of the access road between the plant site and the access on St Neots Road.

12.9 Health concerns from exposure to quarry dust have been raised in objector comments. The general position statement of the Health and Safety Executive (HSE) on health risks from working in the quarry industry is that daily exposure to fine dust containing crystalline silica (otherwise known as quartz) can increase the risk of developing a chronic and possibly severe disabling lung disease known as silicosis. It usually takes a number of years of regular daily exposure before there is a risk of developing silicosis. It is a disease that has only been seen in workers from industries where there is significant exposure to silica dust, such as in quarries. No cases of silicosis have been documented among members of the general public in Great Britain which, in the HSE's view, indicates that environmental exposures to silica dust are not sufficiently high to cause this occupational disease.

12.10 In reviewing the application, CBC's Public Protection officer and Bedford Borough's Environmental Health officer raise no objection, although it is advised that a detailed dust management

plan would need to be secured by a suitably worded condition. Officers consider that a dust monitoring regime, with trigger limits for investigation and action, would form an integral part of such a management plan. This would allow the operational dust impacts to be assessed against the predicted effects in the ES. Having regard to all relevant matters, it is concluded that the application complies with the NPPF, the Minerals PPG and saved policies GE17 and GE18 of the MWLP.

13.0 TRANSPORTATION

13.1 Section 4 of the NPPF refers to promoting sustainable transport and encourages developments that generate significant movements to be supported by a Transport Assessment (TA). In terms of local planning policy, saved Policy GE1 of the MWLP highlights the volume and nature of road traffic that would be generated by a proposed development, together with the suitability of the site access and local road network to accommodate the identified traffic, as one of a series of matters to be addressed in planning applications. In a similar vein, saved Policy BE30 of the BBLP requires decision-makers to have regard to ...highway capacity and suitability of access arrangements and parking provision. Saved MWLP policy GE23 resists proposals involving the use of significant lengths of unsuitable roads to gain access to the strategic highway network. MWSSP policy MSP10 requires all new quarries to conform to the adopted Freight Strategy.

13.2 Table 22 of the MWSSP identifies the future access and plant site location issues to be addressed in promoting extraction and restoration of the Willington Lock strategic allocation. It notes the option of using the long-established plant site at Willington Quarry and the existing haul road off the A603, or a relocation of the mineral processing operation to land at Dairy Farm, with a new access onto the C44 (St Neots Road). This application confirms the intention to pursue the latter option. The use of the historic access off the A603 to the Willington Quarry complex will cease in 2019 upon working of the limited remaining reserves beneath the old plant site and infilling.

13.3 The proposed site access would be in the form of a new priority T-junction on the southern side of the single carriageway St Neots Road (C44). It has been designed in accordance with the trunk road standards contained within the Design Manual for Roads and Bridges (DMRB) and takes into account the traffic flows on St Neots Road, the level of use of the new site access and observed traffic speeds which dictate the required visibility provision.

13.4 The proposed access is located approximately 0.9km south-east of the grade-separated junction with the A421(T) dual carriageway, which is a major strategic route designed to carry and distribute freight. Given the proximity to this junction, the submitted Transport Assessment anticipates that, apart from occasional HGVs undertaking local deliveries or collections, all HGVs would travel to / from the A421 to the west.

13.5 In terms of maximum numbers of HGV movements, when allowing for seasonal and daily variations, and taking into account predicted markets and activities at the Black Cat site which Willington Lock Quarry would replace, the applicant forecasts that there could be up to 120 loads in and out (240 movements) per day in years 2 and 3. This would comprise 60 loads of aggregate (120 movements), 30 loads of readymix concrete (60 movements) and 30 loads of inert fill (60 movements). As the complex would employ up to 12 people, it is assumed there would be 24 staff movements per day.

13.6 Analysis of empirical traffic flow information and available collision data within the TA indicates that the existing road network has safely accommodated routine HGV movements whilst retaining a significant level of reserve capacity during the peak hour period and during the day. No personal injury accidents involving HGVs were recorded within the latest survey period (2011 - 2016). The quantum of proposed development traffic falls within the observed range of weekday day to day variation in traffic movements on St Neots Road. The recorded traffic flows were projected to 2024 using local growth factors derived from the national database. It was found that in the future design year, as is currently the case, the local road network would retain spare capacity with the trips to / from Willington Lock added to the network, both in terms of daily and peak hour flows. The TA concludes that the proposed development would have an insignificant impact in terms of highway capacity and safety.

13.7 Great Barford Parish Council has commented that a central road feature is needed to allow safe access into the site. The Highways officer advises that overall usage of the new access should be subject to a daily limit of 300 vehicle movements per full working day as movements in excess of this would warrant a ghost right turn lane. In order to make allowance for the expected non-HGV movements (principally staff trips), the Highways officer considers that a daily limit of 260 HGV movements would be appropriate.

13.8 The maximum peak period of quarry traffic activity would occur between 0700 to 0900 hours during which it is predicted there would be up to 50 HGV movements over the two hour period. The Highways officer initially raised concern that traffic arriving at the site during the morning peak may encounter difficulties turning right against the main flow of traffic leaving Great Barford and it was suggested that a ban on movements between these hours would be justified. However, following the submission of additional junction capacity modelling work using PICADY, which included concentrating the predicted two hour peak period flow of 50 HGV movements into a single hour to produce a more robust assessment, the Highways officer is satisfied that there would be sufficient gaps in traffic and minimal queueing. The peak hour performance under peak activity levels falls well within normally accepted capacity thresholds. The Highways officer considers it advisable to restrict AM peak HGV movements to 40 per hour to prevent traffic levels in excess of those which have been assessed. A condition could be imposed to that effect. Junction warning signs on St Neots Road would also be required.

13.9 Whilst only one of the proposed visibility splays is in accordance with the DRMB default standard, the Highways officer accepts that speed survey and weather data accompanying the TA supports the provision of a reduced visibility splay of 160 metres to the east. Visibility is achievable within the highway boundary.

13.10 The action plan in appendix A of the adopted Bedford Borough Freight Strategy (2011 - 2021) identifies the need to, inter alia:

- ensure that freight delivery routeing, controls and infrastructure are considered as an integral part of planning proposals for Bedford; and;
- monitor new developments and routes to ensure that the right routes are used and the impacts of freight are minimised.

13.11 In order to ensure that traffic leaving the site avoids the villages of Great Barford, Blunham and Roxton and utilises the primary freight route network (A421) to reach the A1, the Highways officer considers that a right turn ban should be imposed at the site exit. It is not possible to create a viable central island feature to prevent right turns out of the site. This is because such an island would need to be at least the full width of the access bellmouth to stop exiting drivers from turning right past the end of it which, in turn, would prevent right turns into the site from the A421 direction. It is therefore considered reasonable to require a traffic regulation order (TRO).

13.12 It is considered good practice for major minerals and waste developments to be equipped with a CCTV installation with allowance for officers to remotely monitor live or recorded footage of the site entrance and weighbridge area. Such a system enables effective monitoring of compliance with several aspects of site operation, including working times, HGV numbers, turning movements, sheeting of vehicles and the state of the highway. A number of sites in the Plan area have such a system in operation, including the applicant's existing site at Black Cat roundabout, and it would clearly be in the public interest to secure details of a CCTV scheme for any development at Willington Lock.

13.13 Saved MWLP Policy G18 seeks to ensure that, inter alia, any adverse impact of mud and debris on the road is minimised as far as possible and is outweighed by other planning benefits. The applicant states that HGVs would be managed in a similar fashion to the existing operation at Black Cat Quarry where a metalled loop based internal access road prevents any vehicle from gaining access onto the public highway without first going through a wheel wash facility. This is reflected on the submitted plant site layout and collection area plan. Unlike the Black Cat operation, however, the Willington Lock

proposal would involve the use of significant lengths of unsurfaced haul road by HGVs delivering inert waste to the worked out quarry void. As such there is increased potential for carriage of detritus onto the highway. Officers consider that a detailed scheme is needed setting out the protocols and procedures that would be introduced to prevent the contamination of the highway. This could include temporary closure of the site on a voluntary basis in certain weather conditions. It is judged that such detail could be left to an appropriately worded condition.

13.14 In conclusion, traffic impacts are assessed as not having a significant impact upon the highway network and, subject to appropriate conditions and a TRO, are deemed to be acceptable in accordance with saved policy BE30 of the BBLP, saved policies GE1 and GE23 of the MWLP and policy MSP10 of the MWSSP.

14.0 CULTURAL HERITAGE

14.1 Certain monuments and built features are deemed to be of such importance that they are given legal protection through the Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990. In considering planning applications which may affect the setting of listed buildings, local planning authorities are required to have special regard to criteria including the desirability of preserving their setting. Policy CP23 of the CSRIP, saved policy BE21 of the BBLP and saved MWLP policy GE15 reflect that duty, whilst section 12 of the NPPF sets out national policies on the conservation of the historic environment. The NPPF advises that when determining planning applications, decision-makers should require applicants to describe the significance of any heritage assets affected including any contribution made by their setting. Furthermore, paragraph 132 of the NPPF advises that great weight should be given to the asset's conservation and that significance of an asset can be harmed or lost through alteration, destruction or development within its setting. Appendix B of the NPPW identifies protection of the historic environment as one of the locational criteria to be taken into account in assessing the suitability of sites for new waste development. Saved policy GE14 refers to archaeology and states that, when considering minerals and waste development proposals, decision-makers will require, where appropriate, the preservation of sites of major archaeological importance and their settings. Saved policy GE16 states that permission will only be granted for minerals and waste development which would have an adverse impact on local historic buildings, conservation areas and historic environment sites where any adverse impact is reduced as far as practicable and is outweighed by other planning benefits of the proposal.

14.2 A geophysical survey and programme of evaluation trenching has been undertaken within the proposed extraction area and proposed access corridor land. The work was monitored by the authorities' respective Archaeological officers. The results are presented within the ES and highlight the presence of multi-period archaeological remains which, under the terms of the NPPF, constitute heritage assets with archaeological interest. Neolithic-Bronze Age pottery and flints were recovered from several features that appear to suggest settlement activity. The winning of sand and gravel would result in the total destruction of all surviving archaeological remains. Central Bedfordshire's Archaeological officer considers that this does not present an overriding constraint on the development provided that the applicant takes appropriate measures to record and advance understanding of the significance of heritage assets before they are lost and make the evidence publicly available in line with paragraph 141 of the NPPF. The unexcavated land at the northern end of Dairy Farm, where the site access road and soil storage bunds are proposed, has been subject to previous archaeological investigation and evaluation being within the curtilage of Dairy Farm Quarry. This indicated the presence of a prehistoric field system. It is also considered that these remains can be mitigated and do not present an overriding constraint. The ES states that a 'strip map and sample' methodology would be deployed with archaeological supervision of the stripping of the topsoil and subsoil layers undertaken in a flexible way so that it is intermittent over areas of low archaeological intensity and continuous over those areas of high intensity. This would allow for the soil of an area to be removed and the surface of the subsoil to be inspected for archaeological remains followed by targeted mapping and sampling. Once this stage has been completed, the subsoil would be removed down to the next layer where archaeological remains would again be mapped and sampled. Officers conclude that the ES contains sufficient information from an archaeological perspective. Pre-commencement conditions are recommended to secure an

archaeological mitigation strategy, based on the evaluation work, covering the investigation of all archaeological remains and the production of a post-excavation report.

14.3 The Heritage Statement appended to the ES has collated the results of a desk-based assessment based on a 1km study area around the site. In order to identify areas within the surrounding landscape where listed buildings and the application site may be inter-visible, the assessment uses the Zone of Theoretical Visibility (ZTV) that was created as part of the Landscape and Visual Impact Assessment. The assessment identifies 59 designated heritage assets within the study area comprising 52 listed buildings, seven Scheduled Monuments and one Registered Park and Garden. The majority of these assets are within Bedford Borough. There are no designated assets within the proposed development site itself.

14.4 A number of Grade II listed buildings are located within Willington. These are surrounded by the built form of the village preventing views towards the development site. The Parish Church of St Lawrence (Grade II) at the western end of Willington village is similarly screened by buildings. There are 20 Grade II listed buildings in Great Barford, which are either outside the ZTV, surrounded by the built development of the village or screened by trees that form part of the experience. The Grade II* listed Parish Church of All Saints is located on the southern part of the Great Barford Conservation Area with no views towards the site due to the presence of trees and built form of the southern end of the village. Old Mills Cottage (Grade II listed) is located approximately 235 metres from the eastern boundary of the proposed extraction area. The Heritage Statement identifies that screening by woodland and trees along the River Ouse would prevent any views of the workings. The setting of this building is currently agricultural and it is likely this makes a positive contribution to its significance including its remoteness. Officers consider there is potential for a very minor level of harm on Old Mills Cottage during extraction phases 2 and 4 on account of the potential noise and dust impacts. Consideration has been given to the visual impact on Moggerhanger Park, which is outside the ZTV, and the assessment provided is sufficient to demonstrate there would be no discernible impact.

14.5 The assessment identifies that a single listed building (Hill Farmhouse, Renhold - Grade II) would be visually impacted by the proposed development. This building is located some 400 metres from the western boundary of the application site and comprises a timber-framed farmhouse with 18th century origins. The significance of this building resides largely in the vernacular architecture of the farmhouse, which is a timber-framed building of 18th century origin. It also contributes towards an understanding of post-medieval farms and farm buildings and therefore has illustrative historic value. The Heritage Statement states that the building's setting also contributes to its significance in that it is experienced in a predominantly rural landscape. However, changes within its setting, in particular the proximity of the A421, has diminished this experience to some extent and the Heritage Statement considers that the building's setting makes a limited or moderate contribution to its significance. Glimpsed views of the proposed development area in Dairy Farm are possible from within the garden through hedgerows. The significance of the effects at Hill Farmhouse are assessed as being negligible adverse. However, as these changes are medium term and reversible, and setting only provides a moderate contribution to this asset, it is argued that these effects would be neutral or slight adverse. The proposed restoration would not result in any harm to the significance of this asset.

14.6 Dairy Farm contains four statutorily protected Scheduled Monuments (bowl barrows and hengiforms) which have been preserved in situ in accordance with archaeological mitigation strategies approved pursuant to the mineral working and landfill permissions. The mitigation measures have entailed the formation of temporary clay bunds, with a defined 20 metre standoff from the outer edges of the scheduled area, to provide a solid physical barrier and ensure there is no direct impact from quarry and landfill operations. None of these monuments have any surface expression but they survive as heavily truncated buried features whose presence is detectable as cropmarks. The significance of these monuments derives to a large degree in the evidential value they possess, as the cut features and their fills provide evidence for the form and design of the monuments at foundation level and their fills will contain evidence for past human activity such as artefacts and palaeoenvironmental information. Setting also contributes to their significance due to their close proximity to one another and also to the Gadsey Brook which was a focus of ceremonial activity in the Late Neolithic period. The setting of the monuments is currently compromised by ongoing restoration operations at Dairy Farm where soil

storage mounds and areas awaiting final restoration remain. Blocks of land in the western half of Dairy Farm have recently been restored back to agriculture with boundary hedgerows planted and this restoration progress has reduced setting impacts. The deadline for final restoration of all phases in Dairy Farm is October 2018.

14.7 The ES has considered the setting impacts and subsequent level of harm likely to be caused by the proposed mineral processing plant on the surrounding scheduled monuments which would result in the postponement of final restoration of the eastern part of Dairy Farm by 6 or 7 years. This assessment concludes that the development would be likely to have moderate adverse effects on the two monuments just outside the red line boundary (SM 1015587 and SM 1015590) taking into account the medium term and reversible nature of the impacts. For the pair of monuments situated further to the west, the closest of which is 140 metres from the site boundary, the effects are assessed as being slight adverse. The Borough Council's Archaeological officer considers that the harm would come from the conspicuousness of the new plant in the setting of the monuments, the industrialising effect of the mineral operations and increased noise, dust and vibration. The proposed predominantly agricultural restoration and afteruse is acceptable with respect to these assets.

14.8 Officers broadly agree with the conclusions reached in the Heritage Assessment regarding the degree of impact on the Scheduled Monuments and which are generally accepted by Historic England and the Borough Council's Archaeological officer. The level of harm caused is likely to be a high level of 'less than substantial' harm for SM 1015587 and SM 1015590 and a lower level of 'less than substantial' harm for the pair of monuments lying within that part of Dairy Farm where the October 2018 restoration deadline would not be affected by any grant of permission for the plant site. During the initial round of consultation, Historic England expressed concerns about the potential for the proposed mineral processing operations (e.g. plant movements, materials handling) to cause direct harm to the adjacent monuments without suitable measures being taken to protect them. SM 1015587 would be likely to be at greater risk from inadvertent impacts as a greater proportion of the scheduled area directly faces the red line boundary. The applicant has sought to address this point by confirming the intention to retain and maintain the low soil bunds surrounding the monuments for the duration of operations. Effectively there would be a continuation of the existing approved protective measures. The Council's Archaeological officer notes from a study of recent aerial photography and a subsequent site meeting that the bund and buffer zone around SM 1015587 have provided sufficient protection for this monument and therefore considers that if left in place should provide adequate protection. Having also recently visited the site, Historic England endorse the retention of the bunding and do not see the need for fencing to be installed to further delineate the scheduled area. Historic England advise that a fresh mitigation strategy would be needed for the monuments going forward, which would need to be submitted and approved prior to implementation of the scheme. Officers agree that the mineral plant site development could not fall back on a scheme that was produced for a different development. Small improvements could be made to the strategy for protection of the monuments, including the use of signage.

14.9 Historic England also raise the point that consideration should be given to the future management of the monuments. As part of a recently updated restoration and aftercare scheme for the wider Dairy Farm Quarry and landfill, a statement has been produced to give more certainty about the status of the monuments through the 5 year aftercare period. SM 1015587 has continued to be cropped during quarry and landfill operations and as such Class Consent has been maintained. The tenant farmer has taken advantage of an unworked pipeline corridor stretching from St Neots Road to the monument which was provided access for continued farming. As the area surrounding the monument to the west has now been restored to arable use, the monument has been assimilated into a larger field. Under the terms of the existing approved mitigation strategy, ploughing of SM 1015587 can continue but there is an obligation to monitor levels to ensure that restored areas are not settling or subsiding which could leave the unexcavated scheduled area susceptible to erosion. The circumstances of the other three Scheduled Monuments is different in that they comprise areas of rough grassland and have been out of cultivation for a sufficiently long period (at least 6 years) for Class Consent to have that lapsed. Under the Scheduled Monuments Act 1979, the landowner must apply for Scheduled Monument Consent from Historic England prior to any resumption of ploughing or other potentially damaging cultivations such as drilling. The scheme confirms that the existing grass cover on the monuments will

simply be left as rough grassland / pasture through the 5 year aftercare period and SM 1015590 will be fenced off. The scheme therefore removes any doubt of there being an threat of plough damage to the archaeological remains during the aftercare period and the risk status of the three monuments is reduced in the medium term. The proposed development of a mineral plant site would not have any impact on the agreed aftercare arrangements for the monuments.

14.10 No objections are raised on heritage grounds by relevant consultees. On balance, officers consider that the degree of harm to the significance of designated heritage assets amounts to 'less than substantial' provided that appropriate conditions are imposed to ensure necessary mitigation. Such level of harm must be weighed against any public benefits of the development in accordance with the test in paragraph 134 of the NPPF. Officers consider that the timely release of additional sand and gravel reserves at an allocated site in the adopted Minerals and Waste Local Plan will bring economic and long term biodiversity and green infrastructure benefits that are sufficient to outweigh the harm to the historic environment. Subject to conditions, it is concluded that the proposals comply with the NPPF, Policy CP23 of the CSRIP, saved policies GE1, G14, GE15 and GE16 of the MWLP and saved policy BE21 of the BBLP.

15.0 CUMULATIVE IMPACT

15.1 The 2017 EIA Regulations stipulate that the cumulation of the effects of the development in combination with the impact of other existing or approved development should be considered as part of the EIA process. Potential cumulative effects have been considered, where appropriate, within the respective ES chapters. In determining applications for minerals development, the NPPF advises that the cumulative effects of multiple impacts from individual sites and / or a number of sites in a locality be taken into account.

15.2 There are no other known committed developments in the locality from which significant cumulative effects might arise. The proposed mineral plant site on land at Dairy Farm is intended as a direct replacement for the old plant site at Willington, with this area required to be fully restored to agriculture and wildlife lagoons by December 2019. Therefore the plant sites would not run concurrently. It is only when the limited remaining reserves at Black Cat Quarry and the old Willington plant site have been exhausted that sand and gravel extraction would be transferred to Willington Lock. That part of Dairy Farm which is unaffected by the current application must be restored by October 2018. There should be limited operational overlap between these different quarry sites in the Willington area.

16.0 SECTION 106

16.1 The proposals give rise to a number of issues for which it is necessary to secure a single legal Agreement under Section 106 of the Town and Country Planning Act 1950 (as amended). The Agreement would be tied to both planning applications submitted to each planning authority. Several parties would need to enter into the Agreement, namely the applicant (also owner of the part of the site), Central Bedfordshire Council, Bedford Borough Council (also owner of Dairy Farm) and the owners of the access corridor land. The following Heads of Terms have been agreed with the applicant:

- Temporary diversion of the National Cycle Network Route 51 around the southern side of the extraction site and reinstatement of the route on its existing alignment at the final restoration stage (obligation would only be necessary if National Grid elect to divert their gas pipeline so that the mineral along this corridor can be won).
- Dedication of a new Public Right of Way (Bridleway) along the north side of Gadsey Brook and through Dairy Farm connecting the dead end Bridleway no. 23 with Renhold Footpath no. 23 (at the final restoration stage).
- Dedication of a new Public Right of Way running from the existing (or reinstated) National Cycle Network Route 51 to Barford Road (at the final restoration stage).

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- Payment of a fee to Bedford Borough Council (Engineering Services) for Technical Approval of the culvert at Cuckoo Brook to permit this structure to be incorporated into the route of new Public Right of Way (Bridleway) along the north side of Gadsey Brook.
- Submission of access schemes for the written approval of the Local Planning Authorities detailing the standard to which the new public rights of ways (and temporarily diverted National Cycle Network Route 51 if necessary) will be laid out (e.g. surface type, width, supporting infrastructure such as culverts, fences).
- Arrangements for extended aftercare of the nature conservation afteruse areas of the site for an overall period of 10 years, with an extended aftercare scheme to be submitted for the written approval of the Local Planning Authority prior to the expiry of the statutory five-year aftercare period.
- Undertaking to pay the Councils' fees in respect of annual monitoring visits during the extended aftercare period (charge based on Regulation 15 of the Town and Country Planning Act Fee Regulations, as amended).

17.0 CONCLUSION

17.1 The planning application site lies within the administrative areas of Bedford Borough and Central Bedfordshire. The application has therefore been made concurrently to the two authorities. The proposed mineral plant site, haul road corridor and means of access fall within Bedford Borough (Dairy Farm) whereas the mineral extraction area lies entirely within Central Bedfordshire. The site would replace sand and gravel reserves at Black Cat Quarry (A1 roundabout) which will soon be worked out, as well as replacing production capacity at two other sites. Those sites being replaced are programmed to be restored to agriculture and nature conservation within the next couple of years.

17.2 The land at Willington Lock to the south of the river has been allocated as a strategic mineral extraction site in the 'Bedford Borough, Central Bedfordshire and Luton Borough Councils Minerals and Waste Local Plan: Strategic Site and Policies' (adopted by the Joint Authorities in 2014). The purpose of the strategic mineral site allocations in this adopted Plan is to provide for the continued supply of aggregate sand and gravels to support areas of future growth (e.g. housing and roads). The application site itself would provide around 3 years' supply.

17.3 All site traffic, including those vehicles delivering inert waste to infill and restore the worked out void, would utilise a new purpose-built access off St Neots Road, located on the former A428 between Renhold and Great Barford. The existing bailey bridge over the River Ouse which links the old Willington mineral plant site to Dairy Farm Quarry would be dismantled and re-installed downstream at Willington Lock.

17.4 Five neighbour representations have been received as a result of publicity of the application, of which four are registered as objections. The grounds for objection include impacts on the quiet enjoyment of the river and wildlife, effect on the functioning of the flood plain, controls on the type of infill material to be used for restoration, visual impact on residents on the eastern extremity of Willington (Mill Farm and Brutus Barns) and protection of the Bedford – Sandy cycleway.

17.5 The respective applications have not generated any objections from technical or statutory consultees, although a holding objection letter has been received at a late stage from National Grid who have sought further explanation as to how underground gas pipelines would be protected at crossing points. It is considered that the question of pipeline protection could be left to a simple scheme submission at which point construction / engineering details could be agreed with the input of National Grid. It is considered that the applicant has adequately assessed the potential impacts of the development in terms of ecology, landscape and visual effects, agriculture and soil resources, hydrology and hydrogeology, noise, dust, air quality, traffic and cultural heritage, all of which are topics covered in the Environmental Statement (ES). Mitigation measures have been incorporated into the design of the

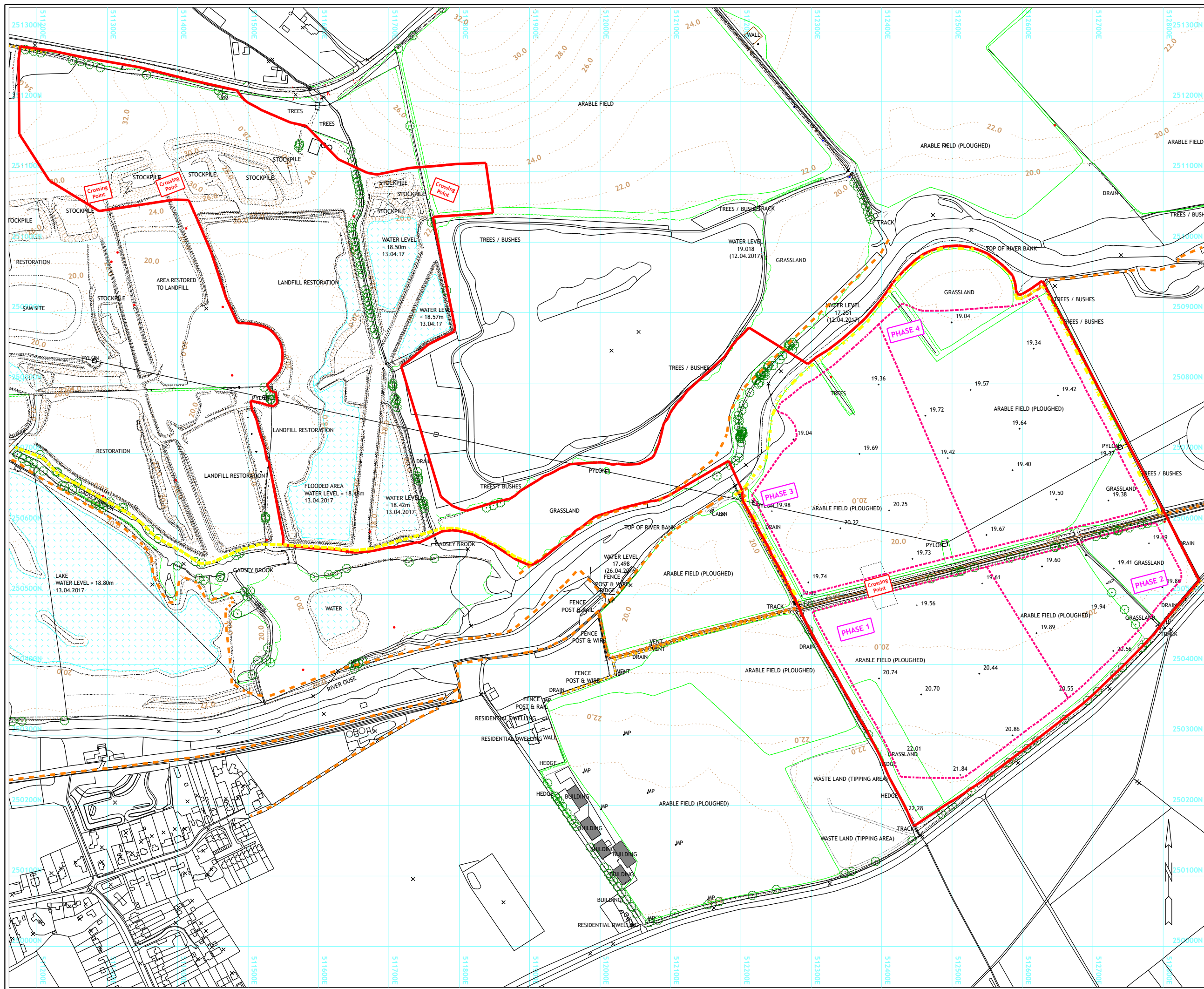
Application No : 17/03351/EIAWM

scheme along with more specific and detailed mitigation measures drawn from recommendations in the ES under each of these topics.

17.6 The proposed means of access to the quarry is acceptable to the Highways officer subject to conditions and the implementation of a Traffic Regulation Order to prohibit right turns out of the site towards Great Barford. A Section 278 Highways Agreement would also need to be completed. The agricultural restoration and nature conservation and green infrastructure enhancements are generally acceptable to Natural England, the Wildlife Trust, Central Bedfordshire's Ecologist, the Forest of Marston Vale and the respective rights of way officers. There is no significant conflict with national policy and guidance and applicable policies in the development plan.

APPENDIX ESSD D

**DRAWING REFERENCE 18-01-01 ENTITLED 'TOPOGRAPHICAL SURVEY REVISED
PHASES'**



Legend

- Planning Application Boundary
- - - Phase Boundary
- 3a 3b Topsoil Store
- 3a 3b Subsoil Store
- Mineral Extraction Area
- Inert Material
- Landform Restored with Soils
- Water Body
- Deposited Silt
- Processed Stock Pile
- Area Stripped of Soil and Overburden
- - - Existing Cycle Route
- - - Existing Footpath
- - - Proposed Temporary Right of Way Diversion
- - - Proposed Permissive Bridleway



BREEDON
 Chris Burgess
 Geologist
 M: +44 7711 192 153
 chris.burgess@breedongroup.com

Breedon Quarry
 Breedon on the Hill
 Derby
 DE78 8AP

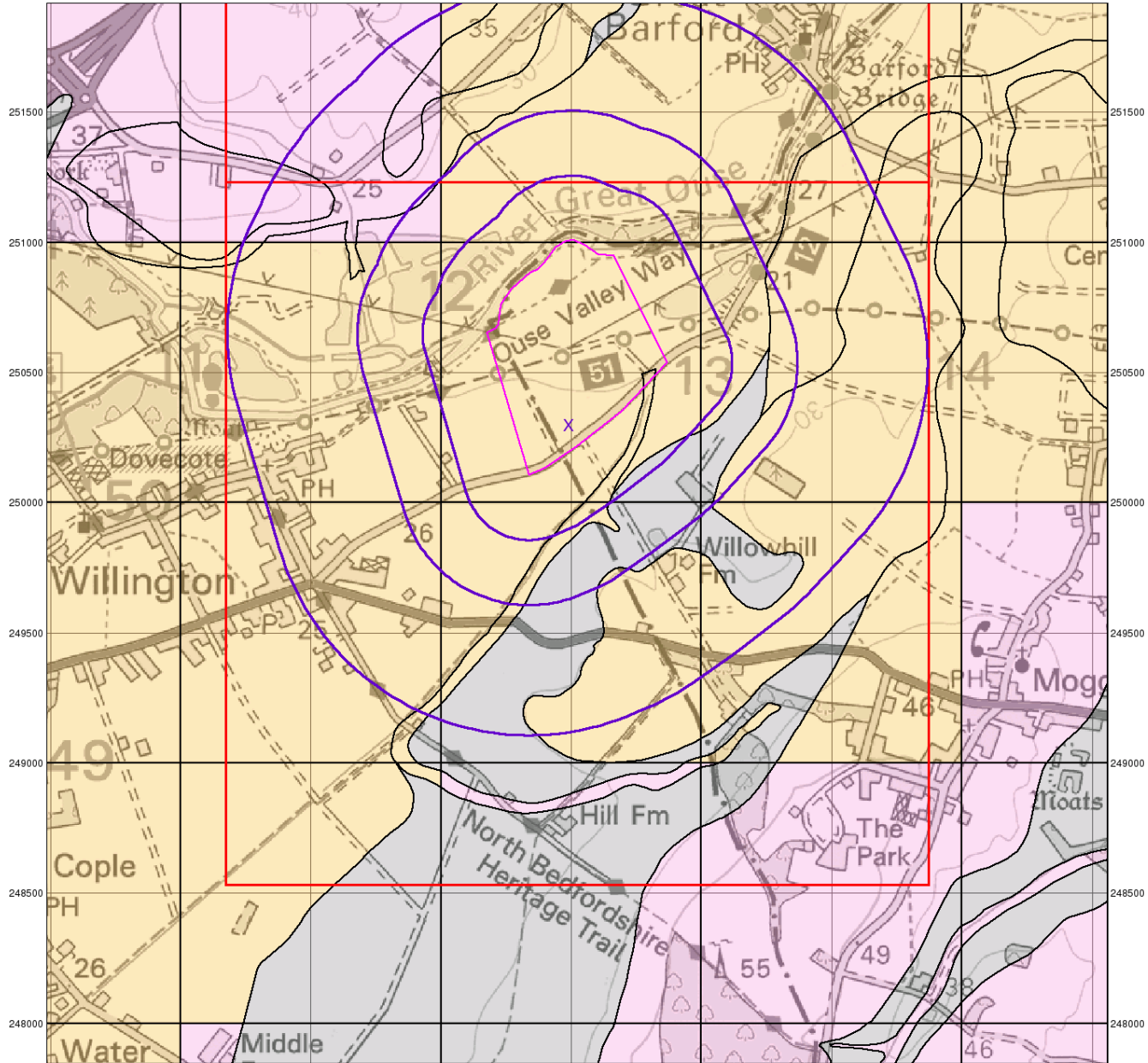
Willington Lock

Topographical Survey
 Revised Phases

Drawn By C Burgess	Scale 1 : 5000
Dwg N° 18-01-01	Paper Size A3L

APPENDIX ESSD E
ENVIROCHECK REPORT (222376098_1_1)

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Groundwater Vulnerability

General

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

Agency and Hydrological

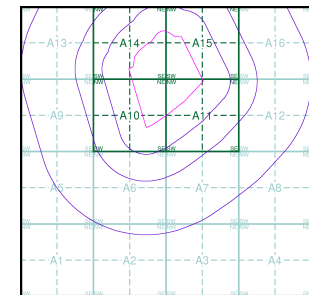
Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer
- Unproductive Aquifer
- Soluble Rock

Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

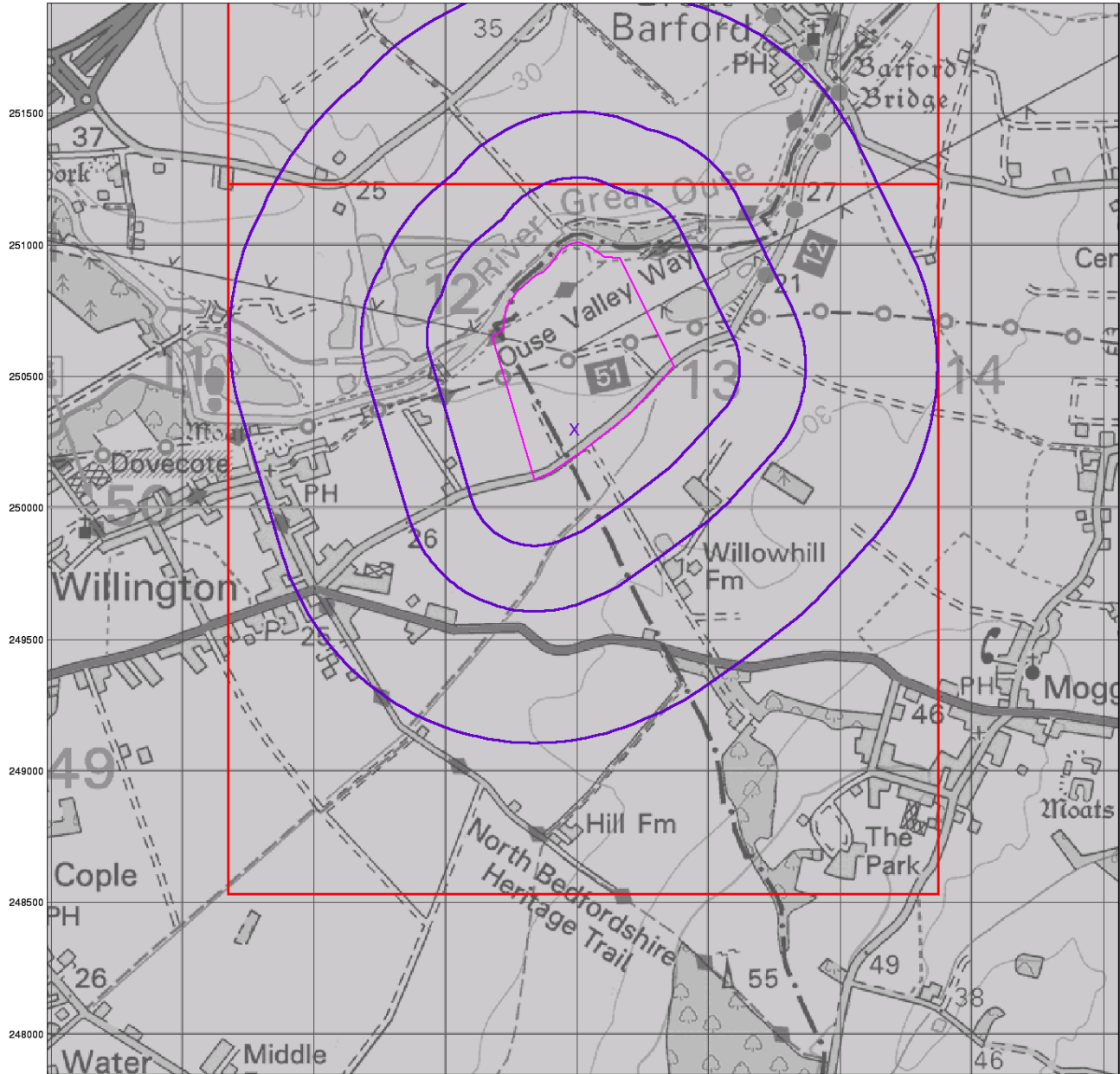
Site Details

Willington Lock

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Bedrock Aquifer Designation

General

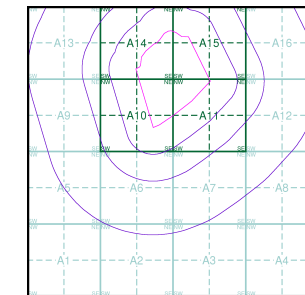
- Specified Site
- Specified Buffer(s)
- Slice
- Bearing Reference Point
- Map ID

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



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

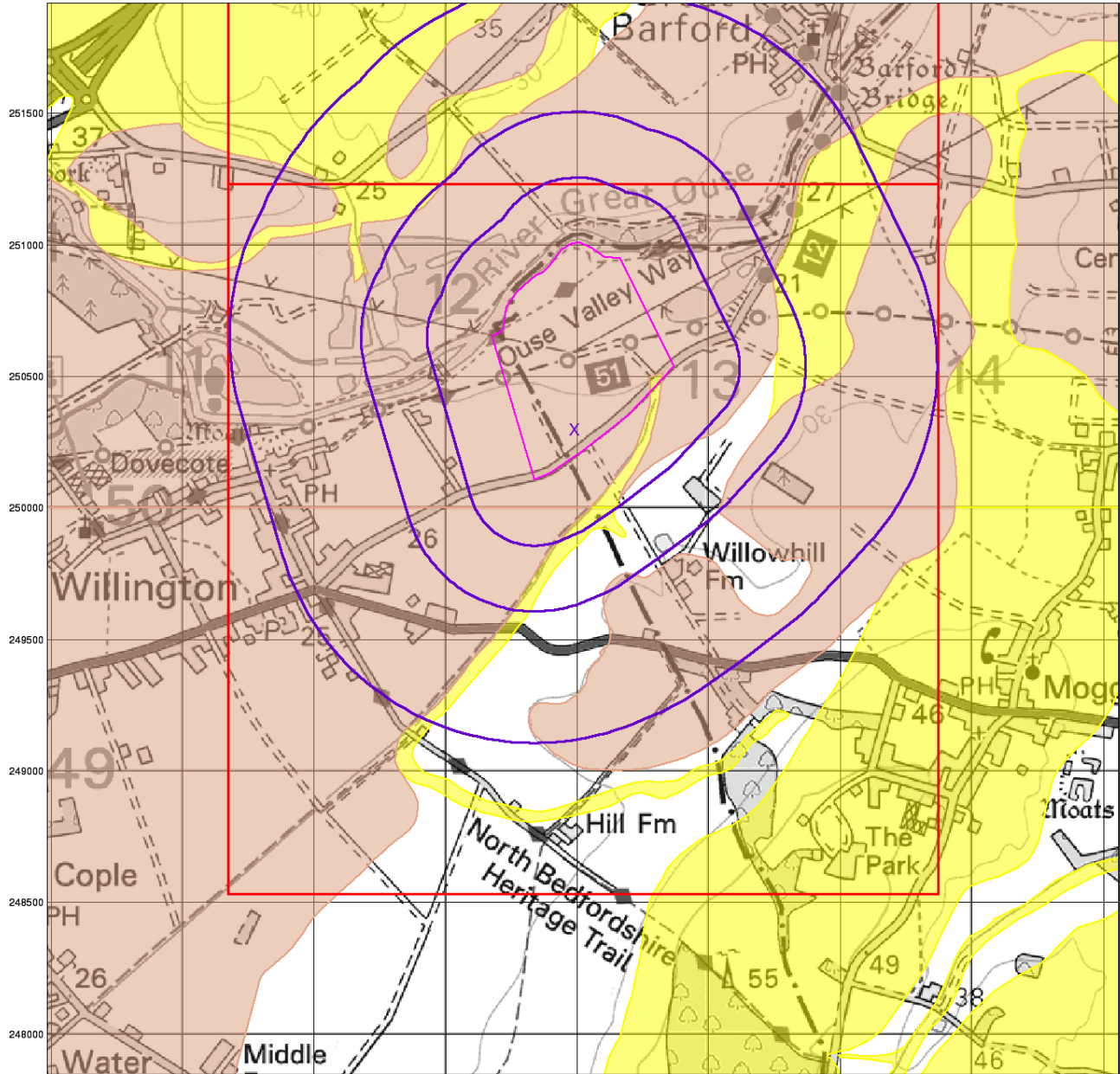
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Superficial Aquifer Designation

General

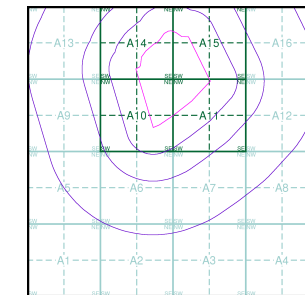
- Specified Site
- Specified Buffer(s)
- Slice
- Bearing Reference Point
- Map ID

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



Order Details

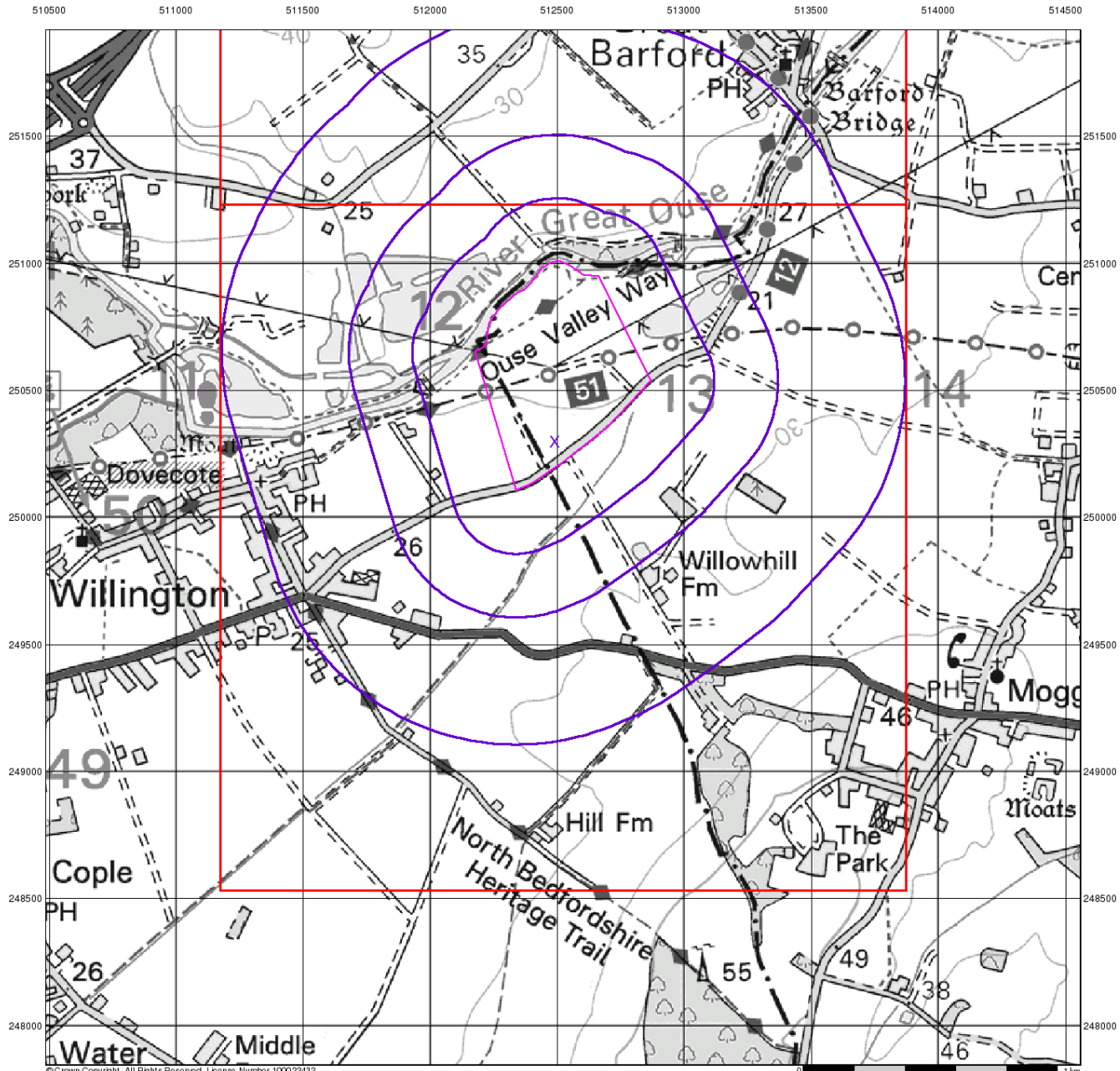
Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

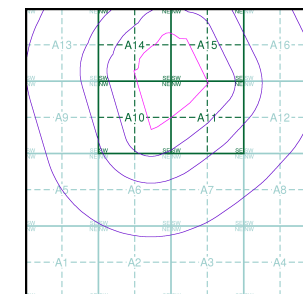
General

- 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



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

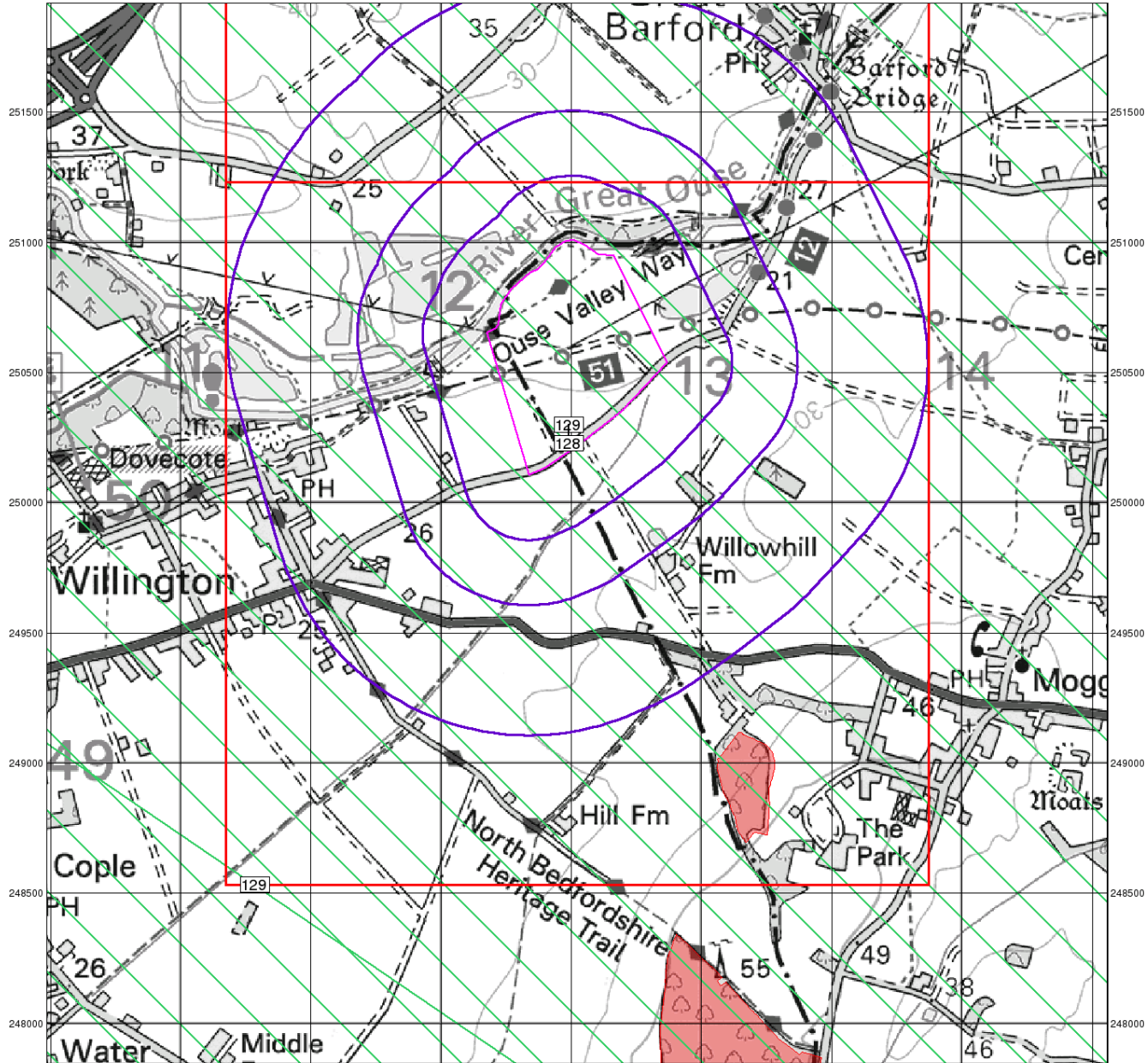
Site Details

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Sensitive Land Uses

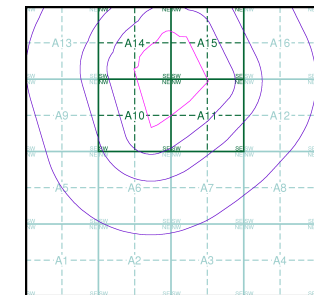
General

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

Sensitive Land Uses

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

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock

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Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

222376098_1_1

Customer Reference:

BRE/WL/SE/1759/01

National Grid Reference:

512490, 250300

Slice:

A

Site Area (Ha):

37.42

Search Buffer (m):

1000

Site Details:

Willington Lock

Client Details:

J Amphlett

MJCA

Baddesley Collier Offices

Main Road

Baxterley

Atherstone

Warwickshire

CV9 2LE

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	47
Hazardous Substances	-
Geological	48
Industrial Land Use	51
Sensitive Land Use	52
Data Currency	53
Data Suppliers	57
Useful Contacts	58

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 this 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

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		1	1	7
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		Yes			
Pollution Incidents to Controlled Waters	pg 4				1
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 4	1	1		
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 4	1	19	19	29 (*59)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 36	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 36	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 36	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 37	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 37	Yes		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 38		24	22	28

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 47				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 47			1	
Licensed Waste Management Facilities (Locations)	pg 47				1
Local Authority Landfill Coverage	pg 47	3	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 48	Yes	n/a	n/a	n/a
BGS Recorded Mineral Sites	pg 48	1	1	2	1
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				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 48	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 49	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 49	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 49	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 49	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

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 51				6
Fuel Station Entries					
Gas Pipelines	pg 51			1	2
Underground Electrical Cables					
Sensitive Land Use					
Ancient Woodland					
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 52	2			
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
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10NE (E)	0	1	512490 250300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	73	1	512250 250150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SE (S)	107	1	512490 250000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	139	1	512250 250000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SE (NE)	147	1	513000 250600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15NW (N)	168	1	512600 251150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SE (NE)	280	1	513100 250700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SE (NE)	347	1	513150 250750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (E)	400	1	513100 250200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NE (E)	403	1	513150 250250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12NW (E)	409	1	513200 250300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (E)	432	1	513050 250100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (E)	437	1	513100 250100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	458	1	512650 249750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (NW)	461	1	511950 251150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NW (S)	486	1	512700 249750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (SE)	500	1	513050 250000
1	Discharge Consents Operator: R Simmonds Esq. Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: Old Mills Cottage, Great Barford, Beds. Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Pr11fu93 Permit Version: 1 Effective Date: 11th March 1981 Issued Date: 11th March 1981 Revocation Date: 1st October 1996 Discharge Type: Unknown Discharge: Onto Land Environment: Receiving Water: Land Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A15NE (NE)	233	2	512900 251000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	<p>Discharge Consents</p> <p>Operator: Lafarge Aggregates Ltd Property Type: Extraction Of Stone, Gravel Etc. Location: Willington Quarry Dairy Farm Dairy Farm, Renhold, Bedford, Bedfordshire, Mk41 0jf Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Eprap3727xh Permit Version: 1 Effective Date: 27th May 2010 Issued Date: 27th May 2010 Revocation Date: Not Supplied Discharge Type: Trade Discharge - Mineral Workings Discharge: Freshwater Stream/River Environment: Receiving Water: Gadsey Bk, Trib R. Great Ouse Status: New issued under EPR 2010 Positional Accuracy: Located by supplier to within 10m</p>	A13SE (W)	416	2	511770 250570
3	<p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Willington Stw Barford Road, Willington, Bedford, Mk44 3qr Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Aw1nf397 Permit Version: 4 Effective Date: 29th November 1988 Issued Date: 29th November 1988 Revocation Date: 12th December 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Great Ouse Nt Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p>	A9NE (W)	530	2	511700 250400
3	<p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Willington Sewage Pumping Station, Willington, Bedford, Bedfordshire, Mk44 3qq Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf11094 Permit Version: 1 Effective Date: 30th August 1994 Issued Date: 30th August 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Great Ouse Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p>	A9NE (W)	567	2	511670 250370
3	<p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Willington Stw, Beds Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf11034 Permit Version: 1 Effective Date: 15th July 1992 Issued Date: 15th July 1992 Revocation Date: 2nd February 1994 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Great Ouse Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	567	2	511670 250370

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Willington Stw, Beds Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf11034 Permit Version: 1 Effective Date: 15th July 1992 Issued Date: 15th July 1992 Revocation Date: 2nd February 1994 Discharge Type: Storm /emergency overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Great Ouse Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	567	2	511670 250370
3	<p>Discharge Consents</p> <p>Operator: Anglian Water Services Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Willington Stw, Beds Authority: Environment Agency, Anglian Region Catchment Area: Mid River Ouse / Elstow Brook Reference: Awcnf11034 Permit Version: 1 Effective Date: 15th July 1992 Issued Date: 15th July 1992 Revocation Date: 2nd February 1994 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Great Ouse Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	567	2	511670 250370
3	<p>Discharge Consents</p> <p>Operator: Mr. D.D. Evans Property Type: Undefined Or Other Location: Gas Pipeline Hydraulic Test, Willington, Beds. Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Pr1nf2823 Permit Version: 1 Effective Date: 20th August 1987 Issued Date: 20th August 1987 Revocation Date: 18th February 1992 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: River Great Ouse Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	592	2	511650 250350
4	<p>Discharge Consents</p> <p>Operator: Guy Davison Property Type: Arable Farming Location: Willow Hall, Moggerhanger, Beds, Mk44 3ru Authority: Environment Agency, Anglian Region Catchment Area: Catchment 29 Unknown Detail Reference: Gwclf31015 Permit Version: 1 Effective Date: 1st April 1999 Issued Date: 12th July 2000 Revocation Date: 29th February 2000 Discharge Type: Trade Discharge - Agricultural And Surface Discharge: Onto Land Environment: Receiving Water: Groundwater Status: Deemed Groundwater Regulations Authorisation Positional Accuracy: Located by supplier to within 10m</p>	A7NE (SE)	550	2	512880 249800
	<p>Nearest Surface Water Feature</p>	A14SE (NW)	0	-	512191 250654

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Sewage Debris/Litter Note: River Ouse Incident Date: 13th March 1998 Incident Reference: 4054 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NE (W)	627	2	511600 250395
	<p>River Quality</p> <p>Name: Ouse GQA Grade: River Quality B Reach: Conf Elstow Bk...Willington Estimated Distance (km): 1 Flow Rate: Flow less than 20 cumecs Flow Type: River Year: 2000</p>	A14SW (NW)	0	2	512097 250577
	<p>River Quality</p> <p>Name: Ouse GQA Grade: River Quality B Reach: Willington Confl. lvel Estimated Distance (km): 5.9 Flow Rate: Flow less than 20 cumecs Flow Type: River Year: 2000</p>	A14NE (N)	34	2	512370 250942
6	<p>Water Abstractions</p> <p>Operator: F C F Southall & Son Licence Number: 6/33/12/*s/104 Permit Version: Not Supplied Location: Gadsey Brook, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 204560 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A11NW (NE)	0	2	512800 250500
7	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12/*G/0149/R01 Permit Version: 1 Location: Willington Lake Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from any point within an area Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15SW (NE)	37	2	512761 250837

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12/*G/0149 Permit Version: 1 Location: Willington Lake Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from any point within an area Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 22nd May 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15SW (NE)	37	2	512761 250837
8	<p>Water Abstractions</p> <p>Operator: Breedon Southern Limited Licence Number: An/033/0012/010 Permit Version: 1 Location: Dewatering Area 'E' At Willington Quarry, Blunham Authority: Environment Agency, Anglian Region Abstraction: Extractive: Dewatering Abstraction Type: Water may be abstracted from any point within an area Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 6th December 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A14SW (NW)	56	2	512168 250709
9	<p>Water Abstractions</p> <p>Operator: L V Davison & Son Licence Number: 6/33/12/*S/0019 Permit Version: 100 Location: Watercourse Nr Willowhill Farm Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st October 1975 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A11SW (SE)	141	2	512600 250100
9	<p>Water Abstractions</p> <p>Operator: L V Davison & Son Licence Number: 6/33/12/*S/0019 Permit Version: 100 Location: Watercourse Nr Willowhill Farm Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st October 1975 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A11SW (SE)	141	2	512600 250100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0022 Permit Version: 101 Location: R. Great Ouse At Gt. Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 21st November 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A15NW (NE)	143	2	512800 251000
10	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0022 Permit Version: 101 Location: R Great Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 21st November 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A15NW (NE)	143	2	512800 251000
10	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0022 Permit Version: 100 Location: R Great Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Time Limit Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 24th December 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15NW (NE)	143	2	512800 251000
10	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0022 Permit Version: 100 Location: R. Great Ouse At Gt. Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Time Limit Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 24th December 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15NW (NE)	146	2	512805 250995

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12*/S/0022 Permit Version: 102 Location: River Great Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 17th September 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15NW (NE)	150	2	512809 250996
10	<p>Water Abstractions</p> <p>Operator: A.Smith And Sons Licence Number: 6/33/12*/s/065 Permit Version: Not Supplied Location: River At, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 227270 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15NW (NE)	150	2	512805 251005
11	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12*/G/0153/R01 Permit Version: 1 Location: Gravel Pit At Great Barford, Bedfordshire Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NW)	175	2	512151 250947
12	<p>Water Abstractions</p> <p>Operator: H W T Monk & Son Licence Number: 6/33/12*/g/116 Permit Version: Not Supplied Location: Gravel Pit North East, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 1 Yearly Rate (m3): 65500 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NW)	183	2	512100 250895

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12*/G/0153 Permit Version: 1 Location: River Gravels At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 9th November 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A14NW (NW)	186	2	512100 250900
12	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12*/G/0140 Permit Version: 100 Location: River Gravels At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Temporary Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st June 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NW)	186	2	512100 250900
12	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Limited Licence Number: 6/33/12*/g/126 Permit Version: Not Supplied Location: Gravel Pit , N/E WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 34 Yearly Rate (m3): 2400000 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NW)	186	2	512100 250900
13	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12*/G/0153/R02 Permit Version: 1 Location: Gravel Pit At Great Barford, Bedfordshire Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A14NW (NW)	228	2	512130 250999

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	<p>Water Abstractions</p> <p>Operator: F C F Southall & Son Licence Number: 6/33/12/*g/113 Permit Version: Not Supplied Location: Lake South Of, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 4 Yearly Rate (m3): 204500 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15SE (NE)	233	2	513000 250795
14	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12/*G/0130 Permit Version: 100 Location: Willington Lake - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Temporary Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st December 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A15SE (NE)	235	2	513000 250800
15	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0013 Permit Version: 100 Location: R Great Ouse At Mill Farm Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st October 1991 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A10NW (W)	290	2	511945 250415
15	<p>Water Abstractions</p> <p>Operator: Messrs R P Gates And Sons Licence Number: 6/33/12/*s/013 Permit Version: Not Supplied Location: R Great Ouse , Mill Farm Authority: Environment Agency, Anglian Region Abstraction: Unspecified Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 296810 Details: Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A10NW (W)	294	2	511940 250420

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0013 Permit Version: 100 Location: R Great Ouse At Mill Farm Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st October 1991 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A10NW (W)	295	2	511940 250415
16	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12/*G/0149 Permit Version: 1 Location: Willington Lake Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 22nd May 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A15SE (NE)	324	2	513100 250800
17	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12/*S/0077 Permit Version: 101 Location: R Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 9th November 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A13SE (NW)	382	2	511800 250600
17	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12/*S/0077 Permit Version: 101 Location: R Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 9th November 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A13SE (NW)	382	2	511800 250600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12/*S/0077 Permit Version: 100 Location: R Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Time Limit Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st June 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (NW)	382	2	511800 250600
17	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12/*S/0077 Permit Version: 100 Location: R Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Time Limit Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st June 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (NW)	382	2	511800 250600
18	<p>Water Abstractions</p> <p>Operator: F C F Southall & Son Licence Number: 6/33/12/*s/114 Permit Version: Not Supplied Location: Gadsey Brook, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 4 Yearly Rate (m3): 204500 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	406	2	511800 250500
19	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12/*S/0077 Permit Version: 102 Location: River Great Ouse, Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 3rd September 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (W)	416	2	511772 250560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	<p>Water Abstractions</p> <p>Operator: Davison & Co (Barford) Ltd Licence Number: 6/33/12/*S/0077 Permit Version: 102 Location: River Great Ouse, Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 3rd September 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (W)	416	2	511772 250560
19	<p>Water Abstractions</p> <p>Operator: F Southall + Son Licence Number: 6/33/12/*s/132 Permit Version: Not Supplied Location: Gadsey Brook, RENHOLD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 4 Yearly Rate (m3): 204500 Details: Status: Temporary Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	440	2	511750 250550
20	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0022 Permit Version: 102 Location: River Great Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 17th September 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15NE (NE)	427	2	513081 251070
21	<p>Water Abstractions</p> <p>Operator: Messrs A Smith And Sons Licence Number: 6/33/12/*g/118 Permit Version: Not Supplied Location: Gravel Pit At Great Barford, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 7 Yearly Rate (m3): 363630 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A16NW (NE)	456	2	513200 250895

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12*/G/0150 Permit Version: 1 Location: Gravel Pit At Blunham Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 21st November 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A16NW (NE)	458	2	513200 250900
21	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12*/G/0134 Permit Version: 100 Location: Gravel Pit At Blunham Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Temporary Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st March 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A16NW (NE)	458	2	513200 250900
21	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12*/g/127 Permit Version: Not Supplied Location: Seepage Pit At, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 18 Yearly Rate (m3): 1091000 Details: Glacial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A16NW (NE)	461	2	513205 250895
22	<p>Water Abstractions</p> <p>Operator: Breedon Southern Limited Licence Number: 6/33/12*/G/0120 Permit Version: 107 Location: Abstraction Point 'D' At Willington Quarry, Cople Authority: Environment Agency, Anglian Region Abstraction: Extractive: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 6th December 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (NW)	496	2	511725 250851

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	<p>Water Abstractions</p> <p>Operator: Breedon Southern Limited Licence Number: 6/33/12*/G/0120 Permit Version: 107 Location: Abstraction Point 'D' At Willington Quarry, Cople Authority: Environment Agency, Anglian Region Abstraction: Mineral Products: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 6th December 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SE (NW)	496	2	511725 250851
23	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12*/G/0150/R01 Permit Version: 1 Location: Gravel Pit At Blunham, Bedfordshire Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A16NW (NE)	509	2	513216 250982
24	<p>Water Abstractions</p> <p>Operator: A Stokes & Son Licence Number: 6/33/12*/S/0006 Permit Version: 100 Location: R Ouse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st February 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	526	2	511705 250395
24	<p>Water Abstractions</p> <p>Operator: A Stokes & Son Licence Number: 6/33/12*/S/0006 Permit Version: 101 Location: R Ouse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 26th November 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A9NE (W)	530	2	511700 250400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	<p>Water Abstractions</p> <p>Operator: Breedon Southern Limited Licence Number: 6/33/12/*G/0120 Permit Version: 107 Location: Abstraction Point 'C' At Willington Quarry, Cople Authority: Environment Agency, Anglian Region Abstraction: Extractive: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 6th December 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13NE (NW)	557	2	511692 250922
25	<p>Water Abstractions</p> <p>Operator: Breedon Southern Limited Licence Number: 6/33/12/*G/0120 Permit Version: 107 Location: Abstraction Point 'C' At Willington Quarry, Cople Authority: Environment Agency, Anglian Region Abstraction: Mineral Products: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 6th December 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13NE (NW)	557	2	511692 250922
26	<p>Water Abstractions</p> <p>Operator: A Stokes And Son Licence Number: 6/33/12/*s/006 Permit Version: Not Supplied Location: Wercourse , WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 0 Yearly Rate (m3): 454610 Details: Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A6SE (S)	618	2	512255 249495
26	<p>Water Abstractions</p> <p>Operator: A Stokes And Son Licence Number: 6/33/12/*s/006 Permit Version: Not Supplied Location: Watercourse, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 0 Yearly Rate (m3): 454610 Details: Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A6SE (S)	619	2	512250 249495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12*/S/0148/R01 Permit Version: 1 Location: River Great Ouse At Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	625	2	511609 250372
27	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12*/S/0148 Permit Version: 1 Location: River Great Ouse At Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 21st May 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	625	2	511609 250372
27	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12*/S/0132 Permit Version: 100 Location: Great Ouse River - Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Temporary Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	626	2	511600 250400
28	<p>Water Abstractions</p> <p>Operator: F C F Southall & Son Licence Number: 6/33/12*/s/104 Permit Version: Not Supplied Location: Gadsey Brook, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 204560 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (W)	646	2	511550 250500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	<p>Water Abstractions</p> <p>Operator: F C F Southall & Son Licence Number: 6/33/12/*s/114 Permit Version: Not Supplied Location: Gadsey Brook, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 4 Yearly Rate (m3): 204500 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NW (W)	695	2	511500 250500
28	<p>Water Abstractions</p> <p>Operator: British Gas Plc Licence Number: 6/33/12/*s/124 Permit Version: Not Supplied Location: River Great Ouse North Of, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Industrial Processing (Miscellaneous) Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 50 Yearly Rate (m3): 17720000 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NW (W)	696	2	511500 250495
29	<p>Water Abstractions</p> <p>Operator: F Southall & Son Licence Number: 6/33/12/*S/0148 Permit Version: 1 Location: River Great Ouse At Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 21st May 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A9NE (W)	654	2	511600 250300
30	<p>Water Abstractions</p> <p>Operator: F Southall Esq Licence Number: 6/33/12/*s/060 Permit Version: Not Supplied Location: River Ouse And Gadsey Brook, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 16 Yearly Rate (m3): 200000 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SW (W)	680	2	511500 250600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	Water Abstractions Operator: F Southall & Son Licence Number: 6/33/12*/S/0148/R01 Permit Version: 1 Location: Gadsey Brook At Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (W)	712	2	511475 250538
31	Water Abstractions Operator: F Southall & Son Licence Number: 6/33/12*/S/0148 Permit Version: 1 Location: Gadsey Brook At Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 21st May 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (W)	712	2	511475 250538
31	Water Abstractions Operator: F Southall & Son Licence Number: 6/33/12*/S/0148 Permit Version: 1 Location: Gadsey Brook At Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 21st May 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (W)	737	2	511450 250540
31	Water Abstractions Operator: F Southall & Son Licence Number: 6/33/12*/S/0132 Permit Version: 100 Location: Gadsey Brook - Renhold Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Temporary Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (W)	737	2	511450 250540

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	<p>Water Abstractions</p> <p>Operator: Murphy Pipelines Ltd Licence Number: 6/33/12/*S/0143 Permit Version: 1 Location: River Great Ouse At Willington Authority: Environment Agency, Anglian Region Abstraction: Other Industrial/Commercial/Public Services: Hydraulic Testing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 30th March 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NW (W)	750	2	511500 250300
33	<p>Water Abstractions</p> <p>Operator: Willington Garden Centre Ltd Licence Number: 6/33/12/*g/003 Permit Version: Not Supplied Location: Well , WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Unspecified Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 7 Yearly Rate (m3): 20000 Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NE (SW)	819	2	511625 249705
33	<p>Water Abstractions</p> <p>Operator: Willington Garden Centre Ltd Licence Number: 6/33/12/*G/0003 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st May 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NE (SW)	821	2	511620 249710
33	<p>Water Abstractions</p> <p>Operator: Willington Garden Centre Ltd Licence Number: 6/33/12/*G/0003 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st May 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NE (SW)	823	2	511620 249705

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	<p>Water Abstractions</p> <p>Operator: P F Southall Licence Number: 6/33/12/*S/0015 Permit Version: 101 Location: Gadsey Brook Nr Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 25th June 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A13SW (W)	821	2	511360 250580
35	<p>Water Abstractions</p> <p>Operator: Mr A L Phipp Licence Number: 6/33/12/*g/082 Permit Version: Not Supplied Location: Well At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 72730 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NE (SW)	822	2	511580 249790
35	<p>Water Abstractions</p> <p>Operator: Mr A L Phipp Licence Number: 6/33/12/*g/082 Permit Version: Not Supplied Location: Well At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 1 Yearly Rate (m3): 7270 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NE (SW)	824	2	511570 249810
36	<p>Water Abstractions</p> <p>Operator: P F Southall Licence Number: 6/33/12/*S/0015 Permit Version: 101 Location: River Great Ouse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 25th June 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NW (W)	917	2	511320 250320

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	<p>Water Abstractions</p> <p>Operator: Willington Garden Centre Ltd Licence Number: 6/33/12/*G/0017 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 1986 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5SE (SW)	956	2	511600 249500
37	<p>Water Abstractions</p> <p>Operator: Willington Garden Centre Ltd Licence Number: 6/33/12/*G/0017 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 1986 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5SE (SW)	959	2	511600 249495
	<p>Water Abstractions</p> <p>Operator: H T Gammons Licence Number: 6/33/12/*G/0024 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st September 1990 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NW (SW)	1067	2	511400 249600
	<p>Water Abstractions</p> <p>Operator: H T Gammons Licence Number: 6/33/12/*g/024 Permit Version: Not Supplied Location: Pond At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 4 Yearly Rate (m3): 509090 Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NW (SW)	1069	2	511400 249595

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0131 Permit Version: 100 Location: Pond 2 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st February 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1182	2	514000 250200
	<p>Water Abstractions</p> <p>Operator: R A Anderson + Sons Licence Number: 6/33/12/#g/131 Permit Version: Not Supplied Location: Pond 2, MOGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 18 Yearly Rate (m3): 300000 Details: Fluvial Sand and Gravel; Status: Temporary Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1182	2	514000 250200
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0151/R02 Permit Version: 1 Location: Pond 2 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1202	2	514025 250216
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0151/R01 Permit Version: 1 Location: Pond 2 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1202	2	514025 250216

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0151 Permit Version: 100 Location: Pond 2 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 22nd January 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1202	2	514025 250216
	<p>Water Abstractions</p> <p>Operator: Mrs M K Beaumont Licence Number: 6/33/12/*g/020 Permit Version: Not Supplied Location: Borehole At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 2 Yearly Rate (m3): 90900 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5SW (SW)	1203	2	511300 249500
	<p>Water Abstractions</p> <p>Operator: Mrs M K Beaumont Licence Number: 6/33/12/*g/020 Permit Version: Not Supplied Location: Borehole At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 1 Yearly Rate (m3): 90900 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5SW (SW)	1205	2	511300 249495
	<p>Water Abstractions</p> <p>Operator: P M Webb Licence Number: 6/33/12/*G/0014 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A5NW (SW)	1218	2	511250 249560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: K V Peacock Licence Number: 6/33/12/*S/0147 Permit Version: 1 Location: Pond 'B' Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 19th November 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A3NE (SE)	1248	2	513100 249100
	<p>Water Abstractions</p> <p>Operator: K V Peacock Licence Number: 6/33/12/*S/0129 Permit Version: 100 Location: Pond 'B' Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st December 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A3NE (SE)	1248	2	513100 249100
	<p>Water Abstractions</p> <p>Operator: K V Peacock Licence Number: 6/33/12/*s/129 Permit Version: Not Supplied Location: Pond 'A' , MOGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Unspecified Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 1 Yearly Rate (m3): 6000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A3NE (SE)	1255	2	513105 249095
	<p>Water Abstractions</p> <p>Operator: MrMr M R Barden Licence Number: 6/33/12/*G/0145/R02 Permit Version: 1 Location: Borehole At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 23rd May 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1289	2	511115 249701

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: MrMr M R Barden Licence Number: 6/33/12*/G/0145/R01 Permit Version: 1 Location: Borehole At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1289	2	511115 249701
	<p>Water Abstractions</p> <p>Operator: MrMr M R Barden Licence Number: 6/33/12*/G/0145 Permit Version: 2 Location: Borehole At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 7th March 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1289	2	511115 249701
	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12*/G/0145 Permit Version: 1 Location: Borehole At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 19th August 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(SW)	1303	2	511100 249700
	<p>Water Abstractions</p> <p>Operator: A & J Mackay Licence Number: 6/33/12*/G/0128 Permit Version: 100 Location: Borehole At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Temporary Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st March 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1303	2	511100 249700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: K V Peacock Licence Number: 6/33/12/*S/0147 Permit Version: 1 Location: Pond 'A' Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 19th November 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A4NW (SE)	1305	2	513200 249100
	<p>Water Abstractions</p> <p>Operator: K V Peacock Licence Number: 6/33/12/*S/0129 Permit Version: 100 Location: Pond 'A' Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st December 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A4NW (SE)	1305	2	513200 249100
	<p>Water Abstractions</p> <p>Operator: K V Peacock Licence Number: 6/33/12/*s/129 Permit Version: Not Supplied Location: Pond 'A' , MOGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 1 Yearly Rate (m3): 6000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A4NW (SE)	1305	2	513200 249100
	<p>Water Abstractions</p> <p>Operator: Andrew George Mackay Licence Number: 6/33/12/*g/115 Permit Version: Not Supplied Location: Borehole At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 9 Yearly Rate (m3): 227000 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1305	2	511100 249695

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: K V Peacock Licence Number: 6/33/12/*s/129 Permit Version: Not Supplied Location: Pond 'A', MOGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Unspecified Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 1 Yearly Rate (m3): 6000 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A4NW (SE)	1312	2	513205 249095
	<p>Water Abstractions</p> <p>Operator: S W Larkins Licence Number: 6/33/12/*g/066 Permit Version: Not Supplied Location: Well At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 40920 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(W)	1313	2	511001 250001
	<p>Water Abstractions</p> <p>Operator: Mrs Jm Hart Licence Number: 6/33/12/*G/0079 Permit Version: 102 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 29th April 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(SW)	1426	2	511100 249400
	<p>Water Abstractions</p> <p>Operator: A T Hart Licence Number: 6/33/12/*G/0079 Permit Version: 101 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 22nd January 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(SW)	1426	2	511100 249400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: A T Hart Licence Number: 6/33/12/*G/0079 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st October 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1426	2	511100 249400
	<p>Water Abstractions</p> <p>Operator: A T Hart Licence Number: 6/33/12/*G/0079 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st October 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1426	2	511100 249400
	<p>Water Abstractions</p> <p>Operator: Bligetree Limited Licence Number: 6/33/12/*g/043 Permit Version: Not Supplied Location: Well , WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 12270 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1460	2	511050 249420
	<p>Water Abstractions</p> <p>Operator: Bligetree Limited Licence Number: 6/33/12/*g/043 Permit Version: Not Supplied Location: Well , WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 1 Yearly Rate (m3): 12270 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1462	2	511050 249415

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: Bligetree Limited Licence Number: 6/33/12/*g/043 Permit Version: Not Supplied Location: Well , WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 12270 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1466	2	511035 249435
	<p>Water Abstractions</p> <p>Operator: Bligetree Limited Licence Number: 6/33/12/*g/043 Permit Version: Not Supplied Location: Well , WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 1 Yearly Rate (m3): 12270 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1471	2	511030 249435
	<p>Water Abstractions</p> <p>Operator: Messrs D W And L M Bettles Licence Number: 6/33/12/*s/037 Permit Version: Not Supplied Location: Catchpit , MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 1 Yearly Rate (m3): 51810 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A4NW (SE)	1528	2	513470 249020
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0151/R02 Permit Version: 1 Location: Pond 1 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1632	2	514469 250224

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0151/R01 Permit Version: 1 Location: Pond 1 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1632	2	514469 250224
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0151 Permit Version: 100 Location: Pond 1 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 22nd January 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1632	2	514469 250224
	<p>Water Abstractions</p> <p>Operator: H Reid & Sons Licence Number: 6/33/19/*G/0238 Permit Version: 100 Location: Pond 1 At Chalton Farm Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Anti Frost Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st January 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1667	2	514500 250200
	<p>Water Abstractions</p> <p>Operator: H Reid & Sons Licence Number: 6/33/19/*G/0238 Permit Version: 100 Location: Pond 1 At Chalton Farm Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st January 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1667	2	514500 250200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: R A Anderson & Sons Licence Number: 6/33/12/*G/0131 Permit Version: 100 Location: Pond 1 - Mogerhanger Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st February 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1667	2	514500 250200
	<p>Water Abstractions</p> <p>Operator: C R Wilkinson & Son Licence Number: 6/33/12/*G/0042 Permit Version: 100 Location: Well At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(W)	1670	2	510600 250100
	<p>Water Abstractions</p> <p>Operator: Mr R A Smith Licence Number: 6/33/19/*g/016 Permit Version: Not Supplied Location: Well At, MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 4540 Details: Greensand 2; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1672	2	514470 250060
	<p>Water Abstractions</p> <p>Operator: R A Anderson + Sons Licence Number: 6/33/12/#g/131 Permit Version: Not Supplied Location: Pond 1, MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 18 Yearly Rate (m3): 300000 Details: Fluvial Sand and Gravel; Status: Temporary Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1673	2	514505 250195

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: Mr R A Smith Licence Number: 6/33/19/*g/016 Permit Version: Not Supplied Location: Well At, MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 4540 Details: Greensand 2; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(SE)	1682	2	514110 249405
	<p>Water Abstractions</p> <p>Operator: E E Alex Esq Licence Number: 6/33/19/*g/121 Permit Version: Not Supplied Location: Pond At, MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Catchpit, Catchment Tank or Collecting Tank Daily Rate (m3): 2 Yearly Rate (m3): 77280 Details: Boulder Clay; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A4NE (SE)	1684	2	513700 249000
	<p>Water Abstractions</p> <p>Operator: M J Giddings (G Pak Ltd) Licence Number: 6/33/12/*G/0138 Permit Version: 101 Location: Borehole At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st November 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1715	2	510800 249350
	<p>Water Abstractions</p> <p>Operator: Willington Farm & Garden Licence Number: 6/33/12/*G/0138 Permit Version: 100 Location: Borehole At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Temporary Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st May 1997 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1715	2	510800 249350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: A Stokes & Son Licence Number: 6/33/12/*S/0006 Permit Version: 101 Location: Watercourse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 26th November 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A1SW (SW)	1720	2	511350 248700
	<p>Water Abstractions</p> <p>Operator: A Stokes & Son Licence Number: 6/33/12/*S/0006 Permit Version: 101 Location: Watercourse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 26th November 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A1SW (SW)	1720	2	511350 248700
	<p>Water Abstractions</p> <p>Operator: A Stokes & Son Licence Number: 6/33/12/*S/0006 Permit Version: 100 Location: Watercourse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st February 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A1SW (SW)	1720	2	511350 248700
	<p>Water Abstractions</p> <p>Operator: A Stokes & Son Licence Number: 6/33/12/*S/0006 Permit Version: 100 Location: Watercourse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st February 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A1SW (SW)	1724	2	511350 248695

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: G Pak Limited Licence Number: 6/33/12/*g/122 Permit Version: Not Supplied Location: Borehole , WEST OF WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 2 Yearly Rate (m3): 13600 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(SW)	1737	2	510800 249300
	<p>Water Abstractions</p> <p>Operator: H Reid & Sons Licence Number: 6/33/19/*G/0238 Permit Version: 100 Location: Pond 2 At Chalton Farm Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st January 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1753	2	514500 249900
	<p>Water Abstractions</p> <p>Operator: H Reid & Sons Licence Number: 6/33/19/*G/0238 Permit Version: 100 Location: Pond 2 At Chalton Farm Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Anti Frost Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st January 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1753	2	514500 249900
	<p>Water Abstractions</p> <p>Operator: The Rt Hon J B Godber M P Licence Number: 6/33/12/*g/056 Permit Version: Not Supplied Location: Borehole At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 5 Yearly Rate (m3): 87270 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(W)	1849	2	510490 249840

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: The Rt Hon J B Godber M P Licence Number: 6/33/12/*g/056 Permit Version: Not Supplied Location: Well At, WILLINGTON Authority: Environment Agency, Anglian Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 5 Yearly Rate (m3): 40900 Details: Fluvial Sand and Gravel; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(W)	1873	2	510470 249820
	<p>Water Abstractions</p> <p>Operator: Messrs F E Hall & Sons Licence Number: 6/33/19/*g/026 Permit Version: Not Supplied Location: Well, MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 2 Yearly Rate (m3): 127270 Details: Greensand 2; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1936	2	514550 249580
	<p>Water Abstractions</p> <p>Operator: Messrs F E Hall & Sons Licence Number: 6/33/19/*g/026 Permit Version: Not Supplied Location: Well , MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 127270 Details: Greensand 2; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1939	2	514550 249575
	<p>Water Abstractions</p> <p>Operator: Messrs F E Hall & Sons Licence Number: 6/33/19/*g/026 Permit Version: Not Supplied Location: Well , MOGGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Unspecified Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 2 Yearly Rate (m3): 127270 Details: Greensand 2; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(E)	1943	2	514555 249575

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: C R Wilkinson & Son Licence Number: 6/33/12/*S/0041 Permit Version: 100 Location: Watercourse At Willington Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 February Authorised End: 31 October Permit Start Date: 1st October 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(W)	1957	2	510300 250100
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Unproductive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: 3-10m Superficial Recharge: High	A14NE (N)	0	3	512490 251000
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Unproductive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: <3m Superficial Recharge: High	A11SW (SE)	0	3	512679 250153
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Unproductive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: <3m Superficial Recharge: High	A10NE (E)	0	3	512490 250300
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A10NE (E)	0	3	512490 250300
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A11SW (SE)	0	3	512679 250153
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A10NE (E)	0	3	512490 250300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (N)	0	2	512490 250370
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A10NE (N)	0	2	512433 250526
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14NE (N)	87	2	512320 251040
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A15NW (N)	151	2	512642 251110
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A15NW (N)	156	2	512650 251111
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A15NW (N)	170	2	512679 251120
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A15NW (N)	177	2	512690 251126
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A15NW (N)	183	2	512698 251130
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A14NW (NW)	224	2	512155 251015
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14NW (NW)	228	2	512149 251015
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A10NW (W)	228	2	512015 250400
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NW (W)	233	2	512010 250390
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A14NW (NW)	241	2	512128 251015
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A10NW (W)	244	2	511999 250383
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14NW (NW)	245	2	512123 251015
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (N)	0	2	512505 250410
	Areas Benefiting from Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flood Water Storage Areas None				
	Flood Defences None				
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 713.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A11NW (E)	2	4	512757 250239
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 526.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14SE (NW)	9	4	512196 250675
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 409.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NW (N)	13	4	512617 250972
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14NE (N)	16	4	512423 250984
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14NE (N)	41	4	512388 250994
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14NE (N)	41	4	512405 251003
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 298.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14NE (N)	71	4	512389 251030
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14SW (NW)	95	4	512089 250600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14SW (NW)	95	4	512092 250606
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 893.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A11SW (SE)	127	4	512697 250154
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 297.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A11NW (E)	127	4	512757 250239
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 111.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NW (NE)	142	4	512806 250984
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 110.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A15NW (NE)	142	4	512812 250973
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (NW)	156	4	512046 250539
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (NW)	159	4	512041 250555
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 167.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14SW (NW)	170	4	512017 250598
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A14SW (NW)	170	4	512018 250583

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (NW)	187	4	512018 250534
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A10NW (NW)	187	4	512018 250516
57	OS Water Network Lines Watercourse Form: Lock or flight of locks Watercourse Length: 32.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A10NW (W)	216	4	511998 250497
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A15NE (NE)	228	4	512910 250968
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 37.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A15NE (NE)	228	4	512910 250968
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A10NW (W)	246	4	511974 250475
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A15NE (NE)	247	4	512921 251003
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 141.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	252	4	512903 251038
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 145.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A15NE (NE)	253	4	512940 250963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A15NE (NE)	253	4	512940 250963
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 168.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (W)	269	4	511950 250476
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 115.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (W)	323	4	511883 250490
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (W)	323	4	511884 250505
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (W)	329	4	511877 250510
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (W)	336	4	511867 250514
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A10NW (W)	338	4	511867 250514
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 281.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15SE (NE)	365	4	513154 250781
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 128.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15SE (NE)	365	4	513154 250782

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 146.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	378	4	513036 251051
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 208.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	386	4	513084 250972
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 668.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SE (W)	417	4	511769 250572
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SE (W)	417	4	511769 250561
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 209.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SE (W)	419	4	511769 250561
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 157.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NE (W)	424	4	511798 250442
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A9NE (W)	424	4	511799 250438
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 283.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NE (W)	432	4	511797 250418
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A9NE (W)	432	4	511797 250418

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A16SW (NE)	475	4	513223 250890
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 219.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A16NW (NE)	483	4	513228 250898
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	514	4	513188 251057
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	514	4	513180 251067
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	520	4	513192 251057
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 315.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	524	4	513151 251228
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A15NE (NE)	529	4	513194 251074
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A6SE (S)	592	4	512224 249526
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A16NW (NE)	596	4	513228 251155

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 505.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A6SE (S)	608	4	512212 249513
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.0 Watercourse Level: Underground Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NE (W)	619	4	511567 250553
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NE (W)	629	4	511557 250551
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A16NW (NE)	633	4	513261 251171
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A16NW (NE)	633	4	513261 251171
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 384.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A16NW (NE)	649	4	513281 251167
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 204.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A9NE (W)	675	4	511533 250435
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NW (W)	709	4	511478 250540
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A9NW (W)	709	4	511480 250532

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 539.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NE (W)	714	4	511528 250332
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A9NE (W)	714	4	511528 250332
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NW (W)	719	4	511467 250518
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 353.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Gadsey Brook Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A9NW (W)	720	4	511468 250536
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 82.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	(NW)	745	4	511669 251258
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13NE (NW)	765	4	511607 251206
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 676.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13NE (NW)	791	4	511586 251221
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 227.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A7NE (SE)	872	4	513118 249577
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A7NE (SE)	876	4	513128 249579

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 134.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A5NE (SW)	938	4	511531 249629
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 456.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A5NE (SW)	940	4	511571 249564
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A5NW (SW)	958	4	511432 249795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
112	Historical Landfill Sites Licence Holder: Not Supplied Location: Wood Lane, Willington, Bedfordshire Name: Darnells Field Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD00829 First Input Date: 1st January 1958 Last Input Date: 31st December 1970 Specified Waste: Deposited Waste included Inert and Industrial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 0200/0170 BGS Ref: Not Supplied Other Ref: PIT 43	A5SE (SW)	847	2	511786 249465
113	Licensed Waste Management Facilities (Landfill Boundaries) Name: Dairy Farm Licence Number: 401185 Location: Willington Quarry, St Neots Road, Renhold, Bedfordshire, MK41 0JF Licence Holder: Breedon Southern Limited Authority: Environment Agency - Anglian Region, Central Area Site Category: Inert LF Max Input Rate: Not Supplied Licence Status: Transferred Issued: 20th October 2014 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A13SE (W)	421	2	511763 250583
114	Licensed Waste Management Facilities (Locations) Licence Number: 401185 Location: Willington Quarry, St Neots Road, Renhold, Bedfordshire, MK41 0JF Operator Name: Breedon Southern Limited Operator Location: Not Supplied Authority: Environment Agency - Anglian Region, Central Area Site Category: Inert LF Licence Status: Transferred Issued: 20th October 2014 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13SW (NW)	708	2	511496 250839
	Local Authority Landfill Coverage Name: Mid Bedfordshire District Council - Has supplied landfill data		0	5	512490 250300
	Local Authority Landfill Coverage Name: Bedford Borough Council - Has supplied landfill data		0	7	512403 250254
	Local Authority Landfill Coverage Name: Bedfordshire County Council - Has no landfill data to supply		0	6	512490 250300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Kellaways Formation And Oxford Clay Formation (Undifferentiated)	A10NE (E)	0	1	512490 250300
115	BGS Recorded Mineral Sites Site Name: Mill Farm Gravel Pit Location: Willington, Bedford, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 35173 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: River Terrace Deposits, 1 To 2 Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A10SE (SW)	0	1	512365 250190
116	BGS Recorded Mineral Sites Site Name: Cuckoo Bridge Gravel Pit Location: Great Barford, Bedford, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 35169 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Alluvium Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A14SW (NW)	245	1	512000 250845
117	BGS Recorded Mineral Sites Site Name: Great Barford Gravel Pit Location: Great Barford, Bedford, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 35168 Type: Opencast Status: Ceased Operator: Ecc Quarries Ltd. Operator Location: Not Supplied Periodic Type: Quaternary Geology: Alluvium Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A15SE (NE)	289	1	513060 250800
118	BGS Recorded Mineral Sites Site Name: Willington Location: Willington, Bedford, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 55487 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Till, Mid Pleistocene Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A16SW (NE)	414	1	513267 250646
119	BGS Recorded Mineral Sites Site Name: Dairy Farm Quarry Location: Willington, Bedford, Bedfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 31281 Type: Opencast Status: Ceased Operator: Breedon Southern Operator Location: Not Supplied Periodic Type: Quaternary Geology: River Terrace Deposits, 1 To 2 Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A13SW (NW)	792	1	511413 250854
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	0	1	512497 250430

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	1	512490 250300
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A14NW (NW)	97	1	512155 251003
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (S)	107	1	512490 250000
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	1	512408 250262
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	0	1	512497 250430
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	1	512490 250300
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A14NW (NW)	97	1	512155 251003
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (S)	107	1	512490 250000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	1	512490 250300
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (S)	107	1	512490 250000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	1	512490 250300
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (S)	107	1	512490 250000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	1	512490 250300
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	0	1	512497 250430
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A14NW (NW)	97	1	512155 251003
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (S)	107	1	512490 250000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SW (SE)	205	1	512722 250105
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	1	512490 250300
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	0	1	512729 250475
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (E)	0	1	512817 250433
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	0	1	512735 250471

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Potential for Shrinking or Swelling Clay Ground Stability Hazards</p> <p>Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service</p>	A10SE (S)	107	1	512490 250000
	<p>Radon Potential - Radon Affected Areas</p> <p>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</p>	A10NE (E)	0	1	512490 250300
	<p>Radon Potential - Radon Protection Measures</p> <p>Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service</p>	A10NE (E)	0	1	512490 250300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
120	Contemporary Trade Directory Entries Name: Moveo Uk Ltd Location: Willowhill Farm, Bedford Road, Moggerhanger, Bedford, MK44 3RU Classification: Freight Forwarders Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SE)	628	-	512893 249711
121	Contemporary Trade Directory Entries Name: Westridge Motor Company Location: 35, Sandy Road, Willington, Bedford, MK44 3QS Classification: Car Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A6NW (SW)	652	-	511971 249569
122	Contemporary Trade Directory Entries Name: M C L Auto Services Ltd Location: 6, Barford Road, Willington, Bedford, MK44 3QP Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A5NE (SW)	850	-	511584 249715
123	Contemporary Trade Directory Entries Name: Highfield Engineering Filby'S Garage Location: 2, Sandy Road, Willington, Bedford, MK44 3QS Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A5NE (SW)	883	-	511602 249619
123	Contemporary Trade Directory Entries Name: Captain Morgan Bike Breakers Location: Wood Lane, Willington, Bedford, MK44 3QT Classification: Motor Cycle Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A5NE (SW)	927	-	511574 249583
124	Contemporary Trade Directory Entries Name: Truckspace.Co.Uk Ltd Location: 57, Station Road, Willington, Bedford, MK44 3QL Classification: Freight Forwarders Status: Inactive Positional Accuracy: Automatically positioned to the address	A5NW (SW)	928	-	511483 249747
125	Gas Pipelines Name: FM07 - Tydd St Giles to Old Warden Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 81 Distance (m): Status: Active Pipe Length (m): 89381.6 Pipe Number: Feeder 7	A10SW (SW)	383	8	511984 249945
126	Gas Pipelines Name: FM09 - Huntingdon to Steppingley Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 81 Distance (m): Status: Active Pipe Length (m): 42431.6 Pipe Number: Feeder 9	A6NW (SW)	503	8	511925 249817
127	Gas Pipelines Name: FM26 - Huntingdon to Steppingley Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 81 Distance (m): Status: Active Pipe Length (m): 43212.2 Pipe Number: Feeder 26	A6NW (SW)	541	8	511895 249793

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
128	Nitrate Vulnerable Zones Name: Huntingdon River Gravels Description: Groundwater Source: Environment Agency, Head Office	A10NE (E)	0	3	512490 250300
129	Nitrate Vulnerable Zones Name: Great Ouse Nvz Description: Surface Water Source: Environment Agency, Head Office	A10NE (E)	0	3	512490 250300

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Bedford Borough Council - Environmental Health Department Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2014 July 2008 October 2017	Annual Rolling Update Not Applicable Annually
Discharge Consents Environment Agency - Anglian Region	July 2019	Quarterly
Enforcement and Prohibition Notices Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Integrated Pollution Controls Environment Agency - Anglian Region	October 2008	Variable
Integrated Pollution Prevention And Control Environment Agency - Anglian Region	July 2019	Quarterly
Local Authority Integrated Pollution Prevention And Control Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2008 March 2015 November 2014	Not Applicable Variable Variable
Local Authority Pollution Prevention and Controls Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2008 March 2015 November 2014	Not Applicable Annual Rolling Update Annually
Local Authority Pollution Prevention and Control Enforcements Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2008 March 2015 November 2014	Not Applicable Variable Variable
Nearest Surface Water Feature Ordnance Survey	September 2019	
Pollution Incidents to Controlled Waters Environment Agency - Anglian Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Registered Radioactive Substances Environment Agency - Anglian Region	June 2016	
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 - Anglian Region - Central Area	July 2019	Quarterly
Water Abstractions Environment Agency - Anglian Region	July 2019	Quarterly
Water Industry Act Referrals Environment Agency - Anglian Region	October 2017	Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	July 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2019	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2019	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	August 2019	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	August 2019	Quarterly
Flood Defences Environment Agency - Head Office	August 2019	Quarterly
OS Water Network Lines Ordnance Survey	July 2019	Quarterly
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	July 2019	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Central Area	July 2018	Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Central Area	July 2019	Quarterly
Local Authority Landfill Coverage Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department	May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department	April 2003 May 2000 May 2000	Not Applicable Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - Anglian Region - Central Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Anglian Region - Central Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Central 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	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council)	February 2016 February 2016 July 2008 May 2008	Variable Variable Annual Rolling Update Not Applicable
Planning Hazardous Substance Consents Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council)	February 2016 February 2016 July 2008 May 2008	Variable Variable Annual Rolling Update Not Applicable
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	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	Annual Rolling Update
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	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	July 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	September 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Underground Electrical Cables National Grid	December 2015	
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	August 2018	Bi-Annually
Areas of Adopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department	March 2019 May 2011	As notified As notified
Areas of Unadopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department	March 2019 May 2011	As notified As notified
Areas of Outstanding Natural Beauty Natural England	June 2019	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	March 2019	Bi-Annually
Marine Nature Reserves Natural England	July 2019	Bi-Annually
National Nature Reserves Natural England	July 2019	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	April 2019	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2019	Bi-Annually
Special Areas of Conservation Natural England	June 2019	Bi-Annually
Special Protection Areas Natural England	April 2019	Bi-Annually

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	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

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	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
6	Bedfordshire County Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8301 Email: www.centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
7	Bedford Borough Council - Environmental Health Department Town Hall, St Pauls Street, Bedford, Bedfordshire, MK40 1SJ	Telephone: 01234 267422 Fax: 01234 325671 Email: enquiries@bedford.gov.uk Website: www.bedford.gov.uk
8	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
9	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	-285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	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				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	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		Glasshouse
	Sloping Masonry		Pylon
	Electricity Transmission Line		Pole
	Cutting		Embankment
	Standard Gauge Multiple Track		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
	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)
	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

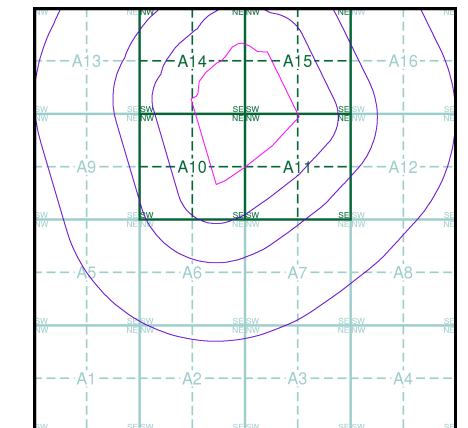
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Bedfordshire	1:10,560	1884 - 1885	2
Bedfordshire	1:10,560	1901 - 1902	3
Bedfordshire	1:10,560	1927	4
Bedfordshire	1:10,560	1938 - 1950	5
Bedfordshire	1:10,560	1948	6
Ordnance Survey Plan	1:10,000	1960	7
Ordnance Survey Plan	1:10,000	1960	8
Ordnance Survey Plan	1:10,000	1976 - 1978	9
10K Raster Mapping	1:10,000	1999	10
Street View	Variable		11

Historical Map - Slice A



Order Details

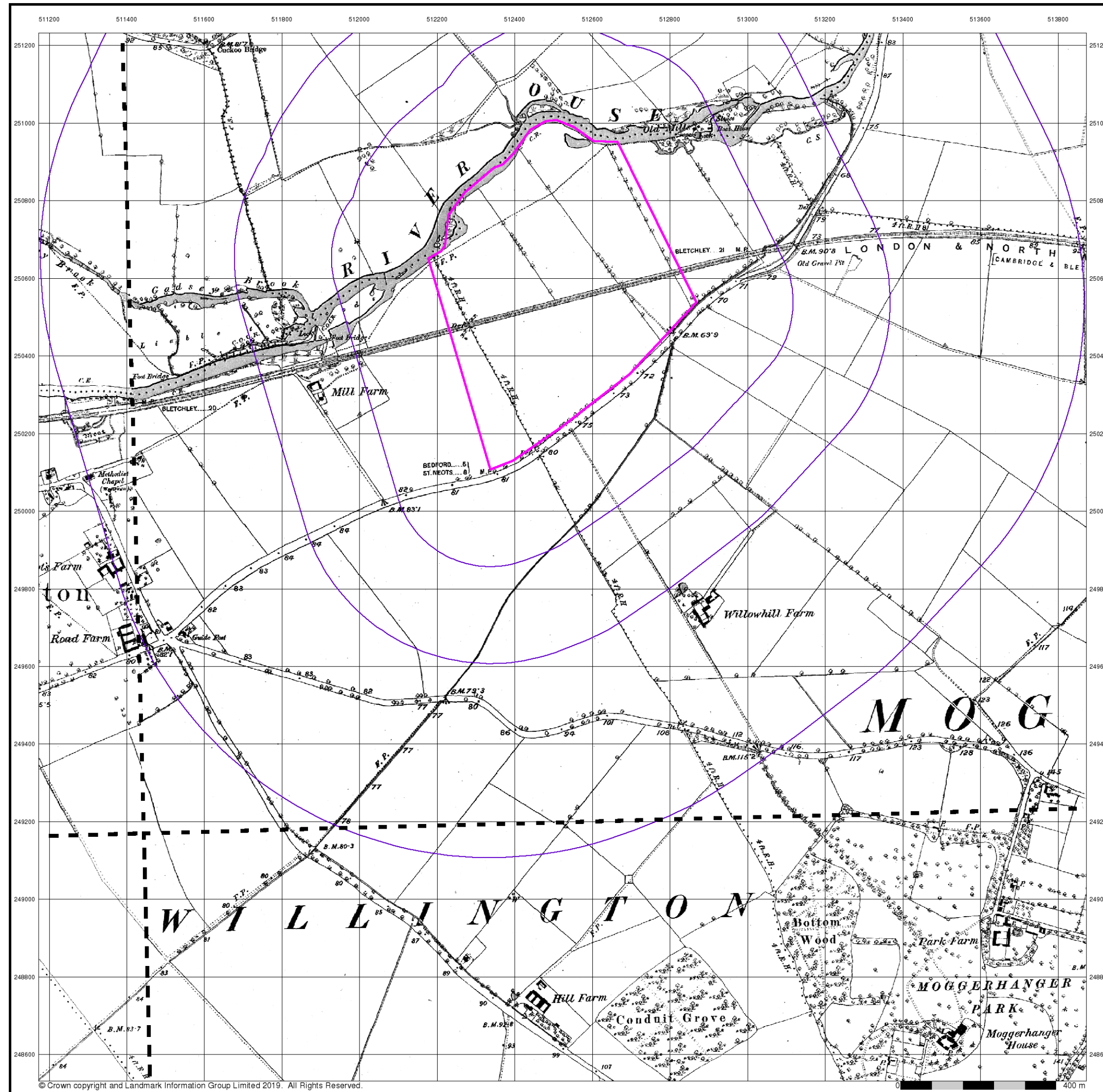
Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock

Landmark
 INFORMATION GROUP

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



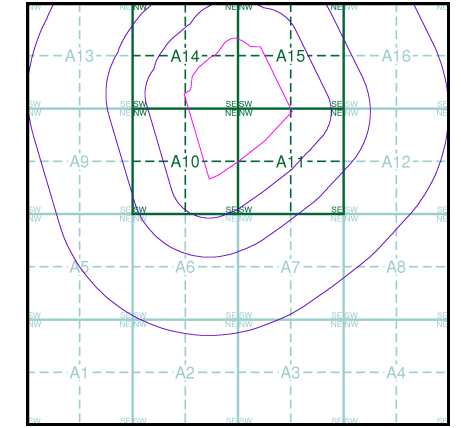
Bedfordshire
Published 1884 - 1885
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

012SW 1885 1:10,560	012SE 1885 1:10,560
017NW 1884 1:10,560	017NE 1884 1:10,560

Historical Map - Slice A

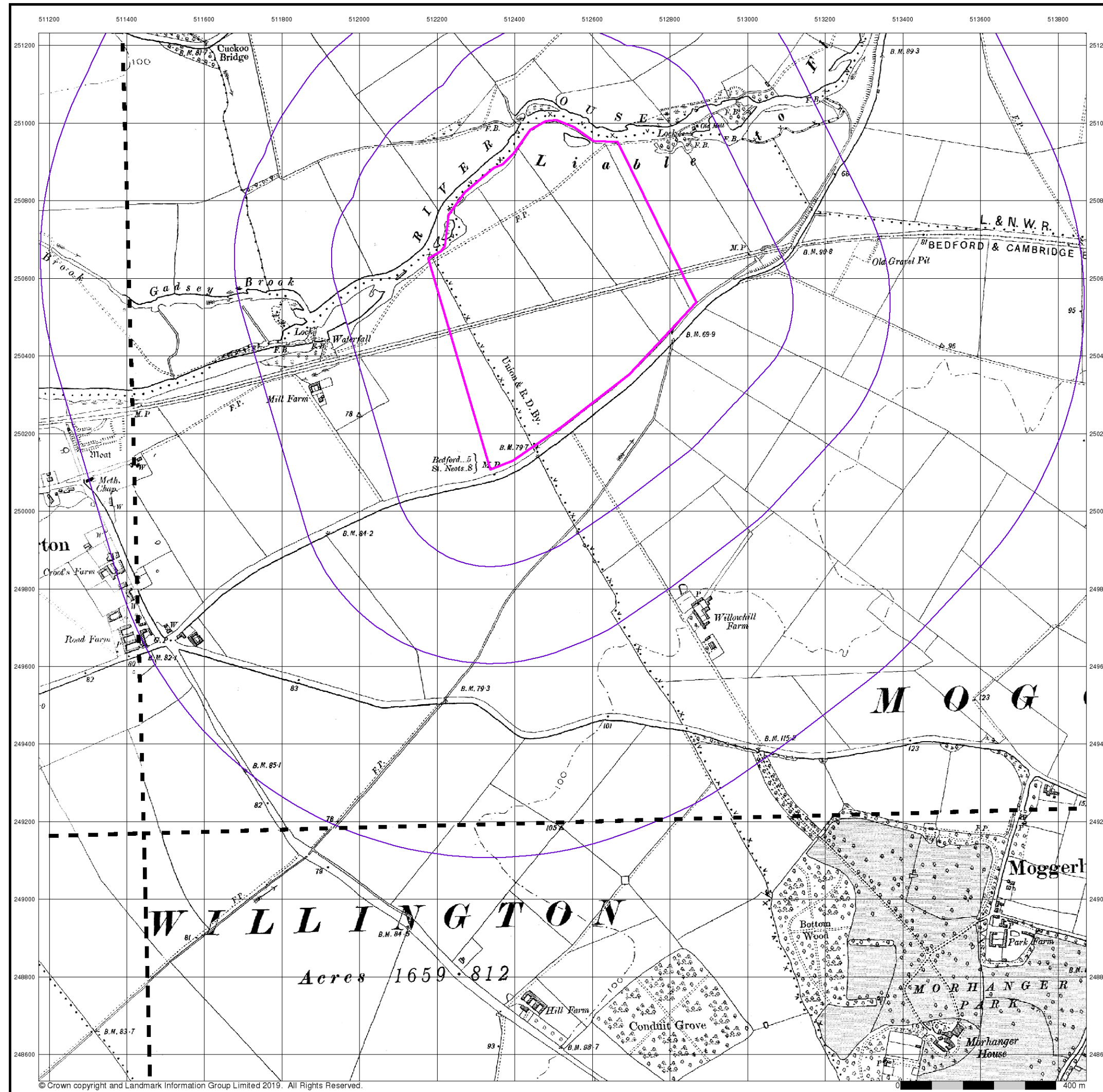


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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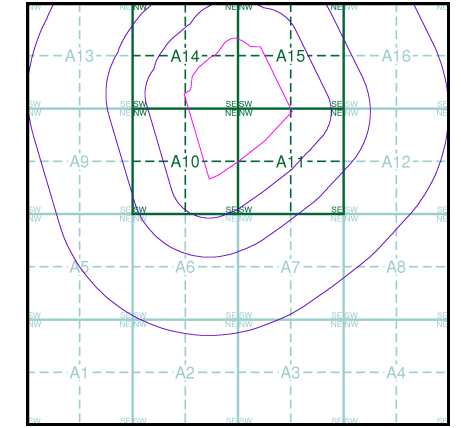
Bedfordshire
Published 1901 - 1902
Source map scale - 1:10,560

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)

012SW 1902 1:10,560	012SE 1902 1:10,560
017NW 1901 1:10,560	017NE 1902 1:10,560

Historical Map - Slice A

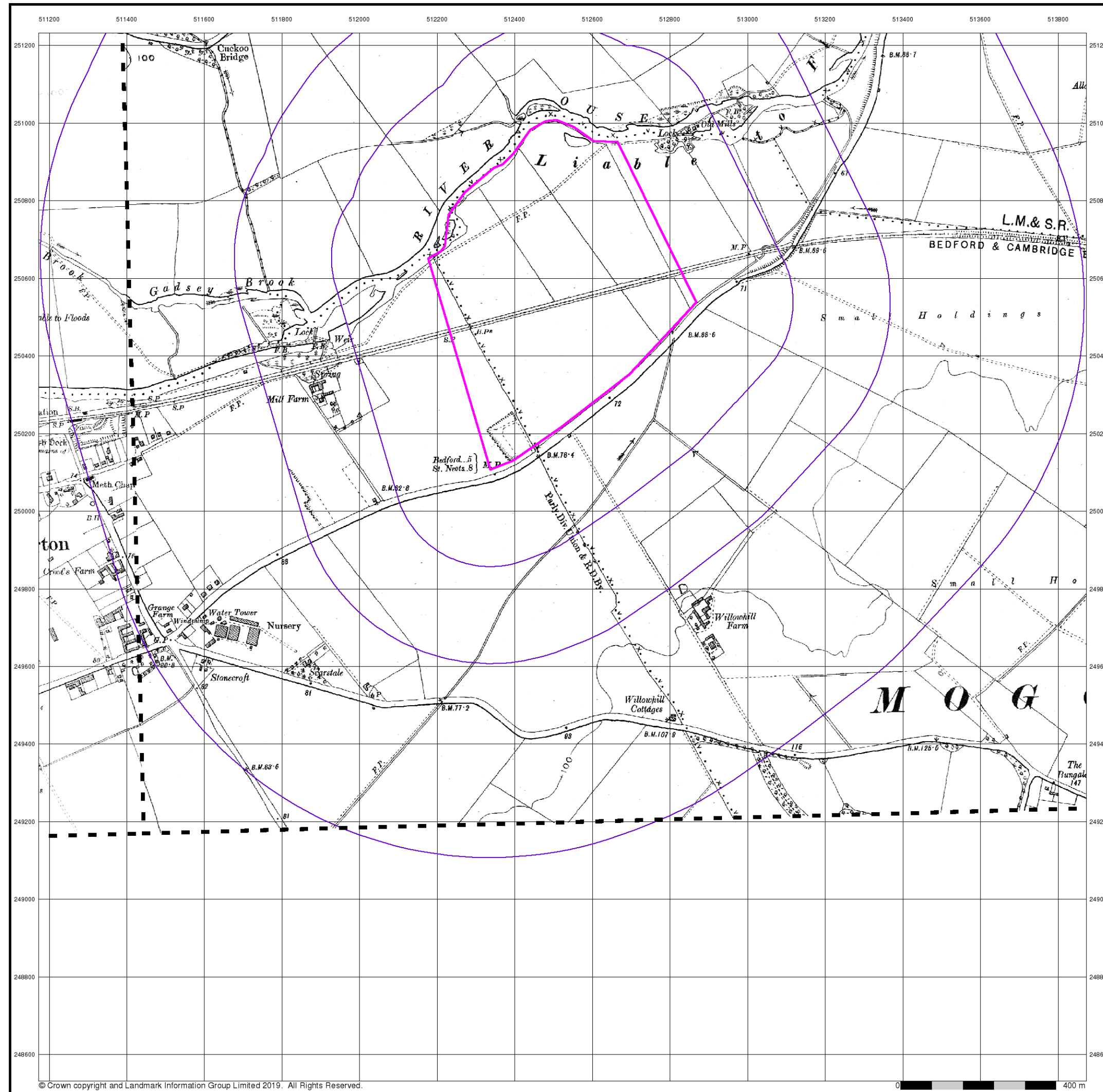


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

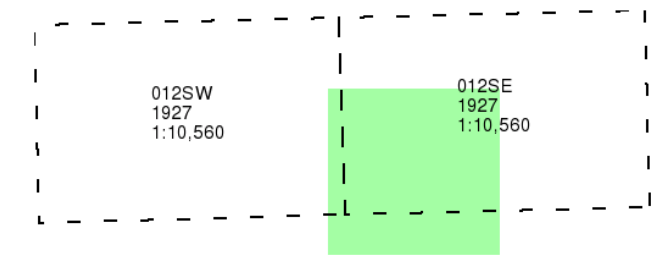
Willington Lock



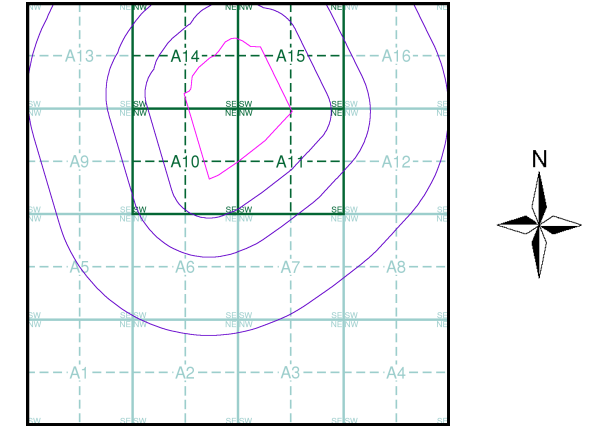
Bedfordshire
Published 1927
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



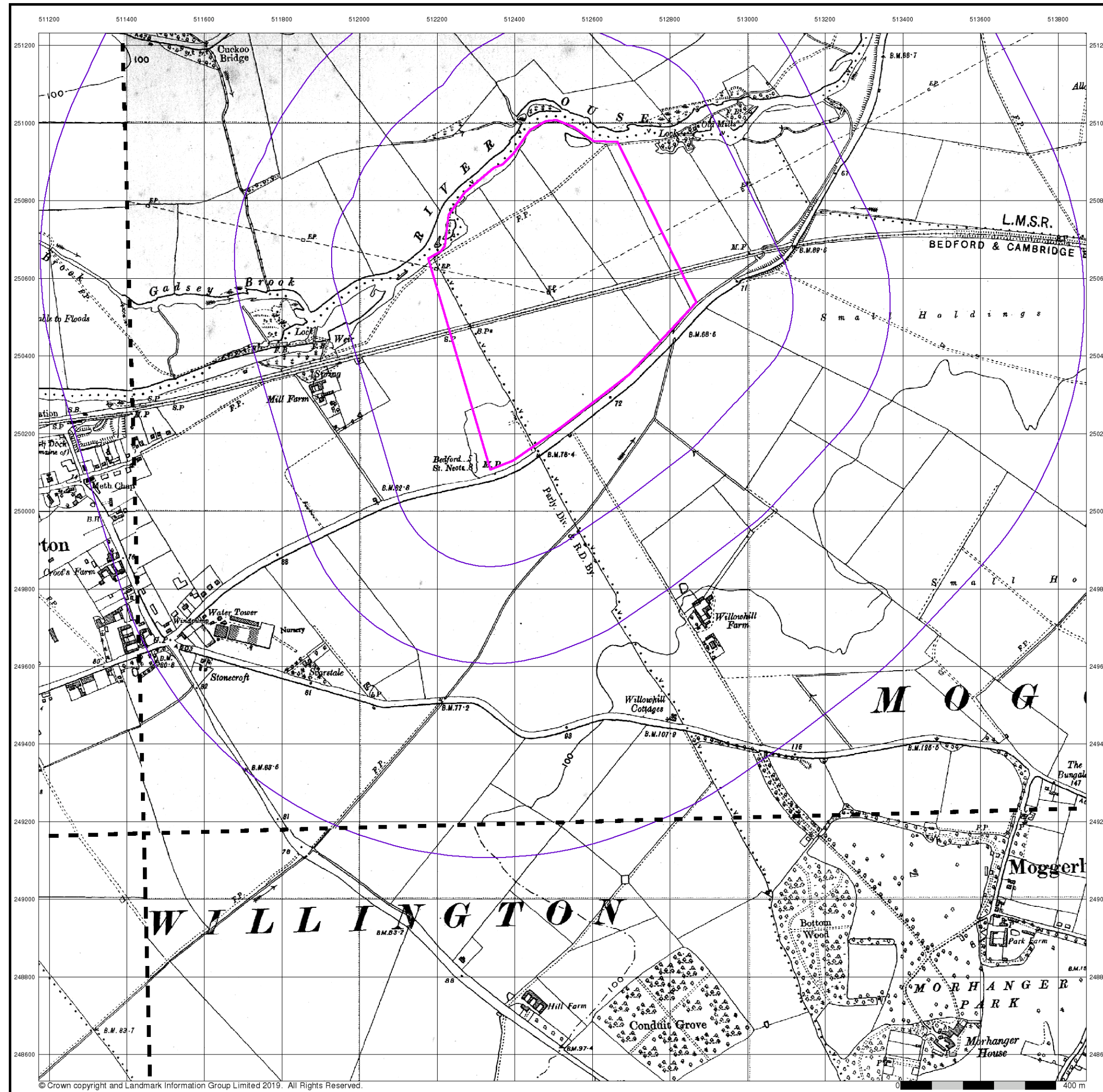
Order Details

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Site Details

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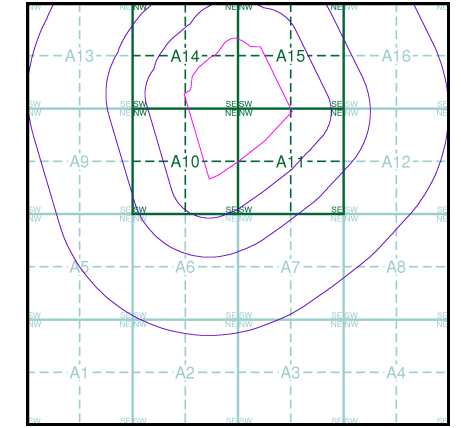
Bedfordshire
Published 1938 - 1950
Source map scale - 1:10,560

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)

012SW 1938 1:10,560	012SE 1948 1:10,560
017NW 1938 1:10,560	017NE 1950 1:10,560

Historical Map - Slice A



Order Details


Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

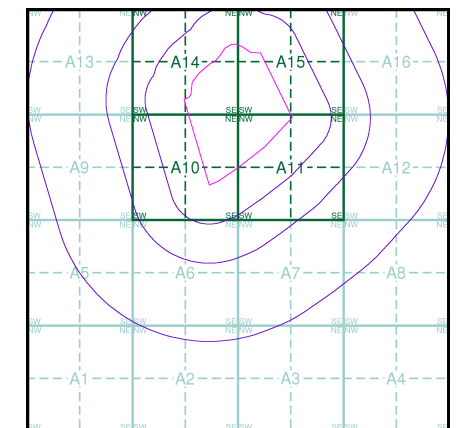
Willington Lock

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)

012SW 1948 1:10,560	
017NW 1948 1:10,560	

Historical Map - Slice A

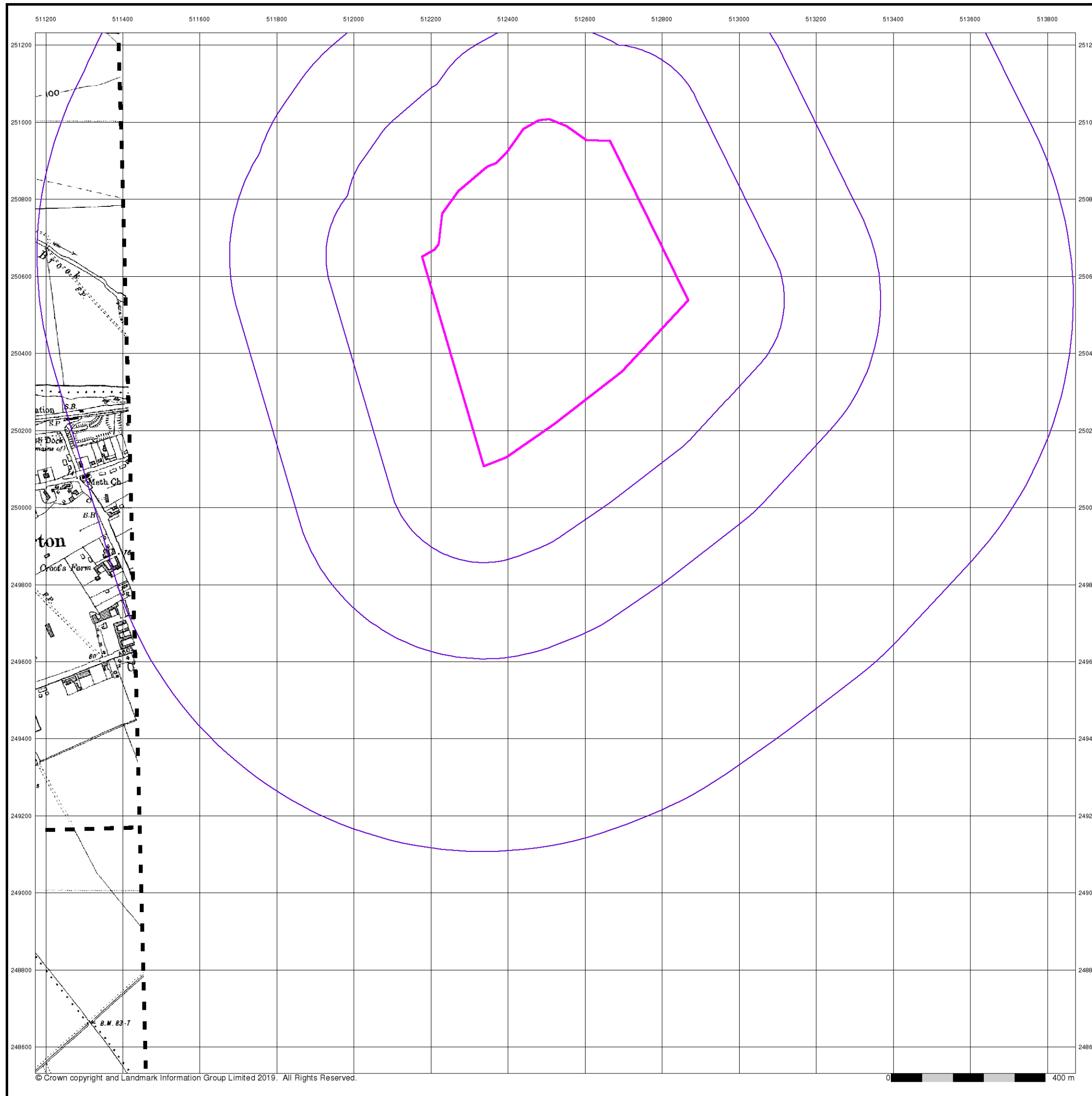


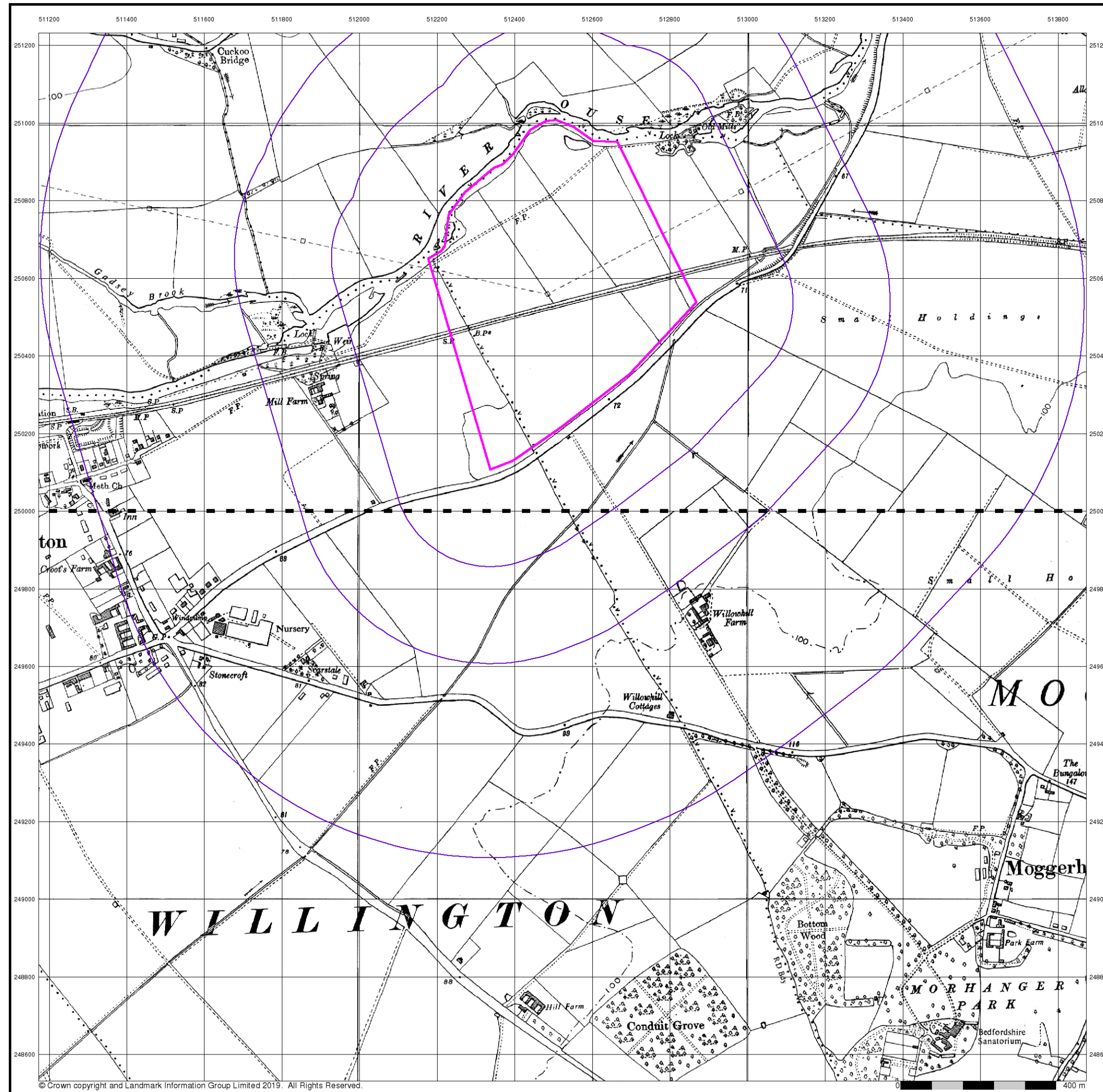
Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1960

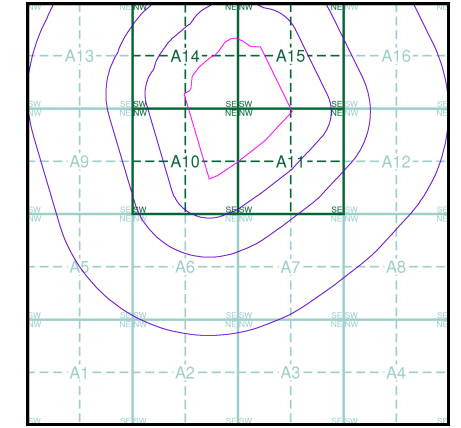
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

TL15SW	1960
1:10,560	
TL14NW	1960
1:10,560	

Historical Map - Slice A

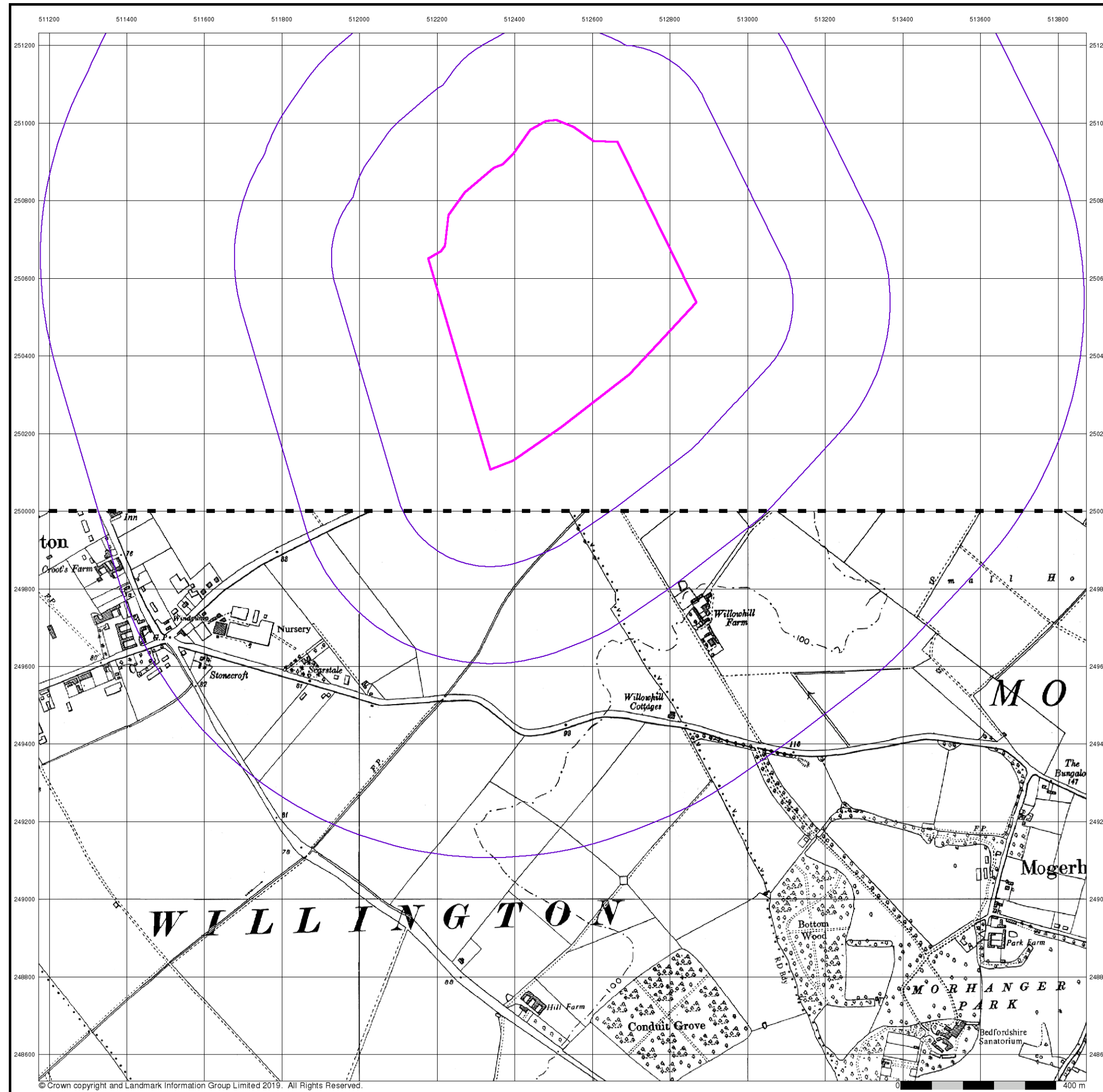


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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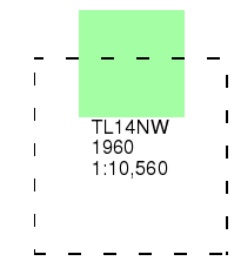
Ordnance Survey Plan

Published 1960

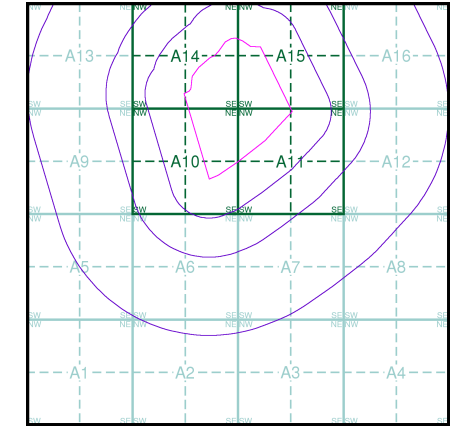
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A

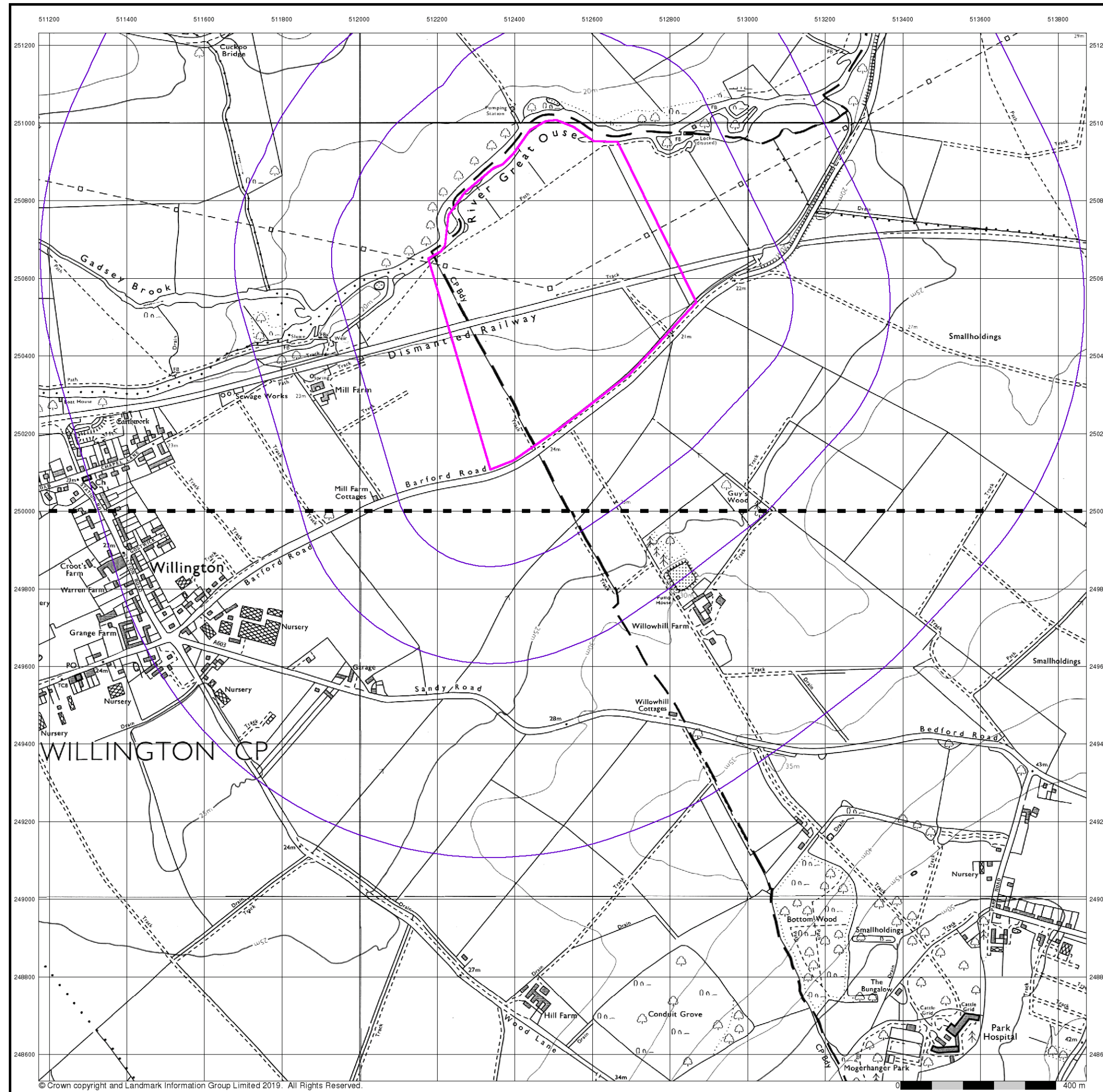


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1976 - 1978

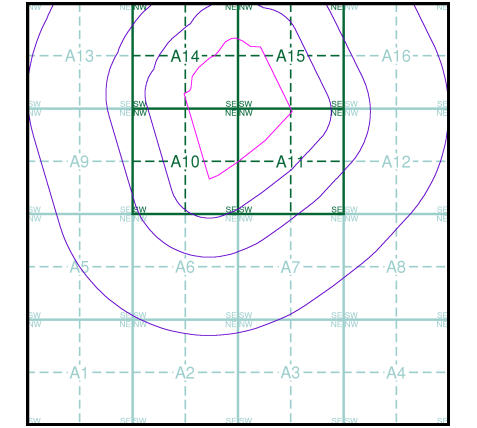
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

TL15SW	1976	1:10,000
TL14NW	1978	1:10,000

Historical Map - Slice A



Order Details

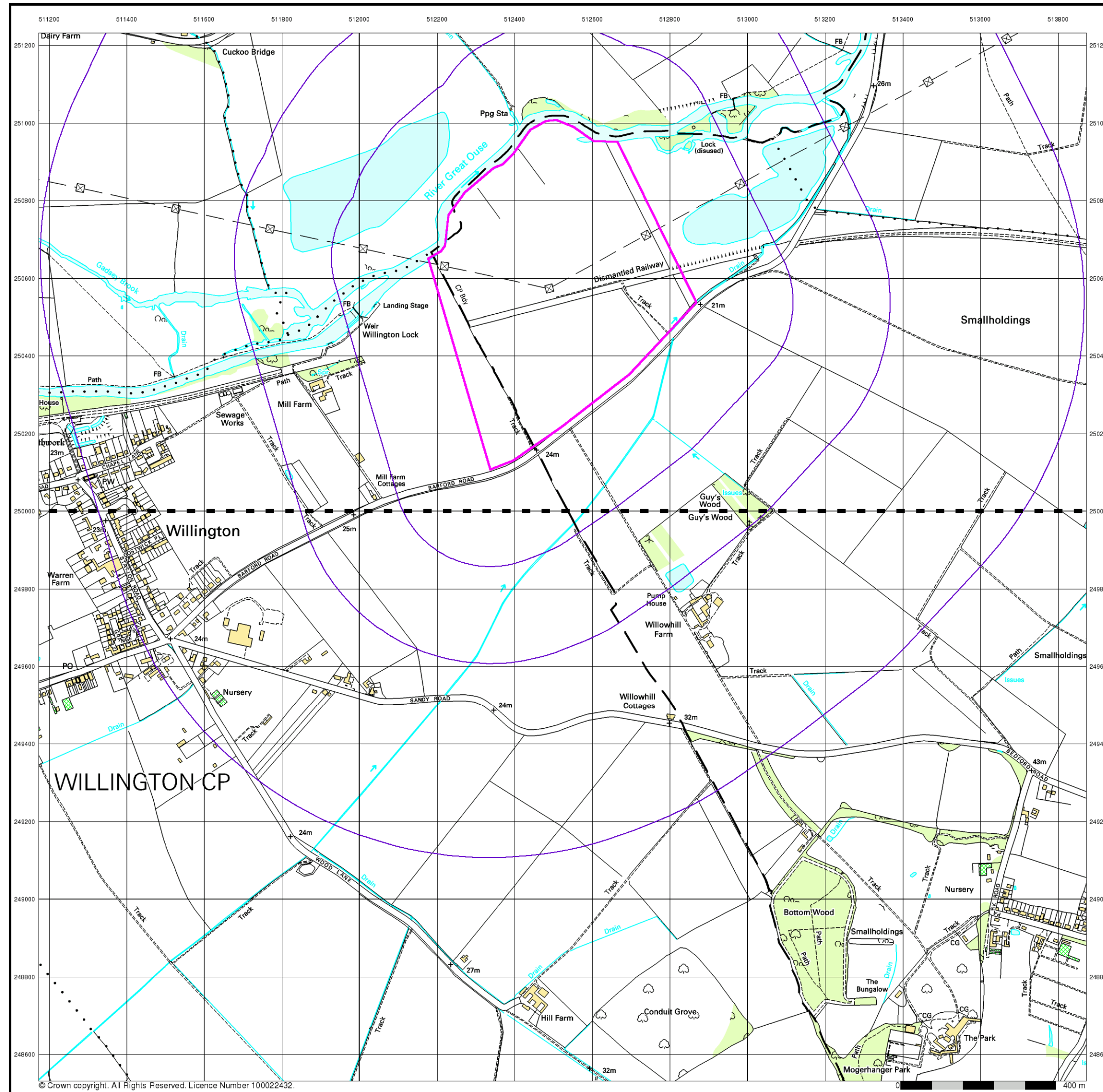
Order Number:	222376098_1_1
Customer Ref:	BRE/WL/SE/1759/01
National Grid Reference:	512490, 250300
Slice:	A
Site Area (Ha):	37.42
Search Buffer (m):	1000

Site Details

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10k Raster Mapping

Published 1999

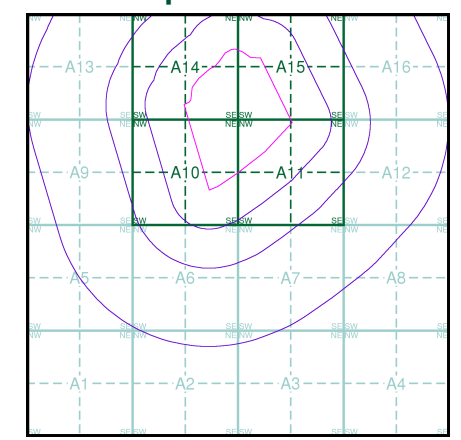
Source map scale - 1:10,000

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)

TL15SW	1999	1:10,000
TL14NW	1999	1:10,000

Historical Map - Slice A



Order Details

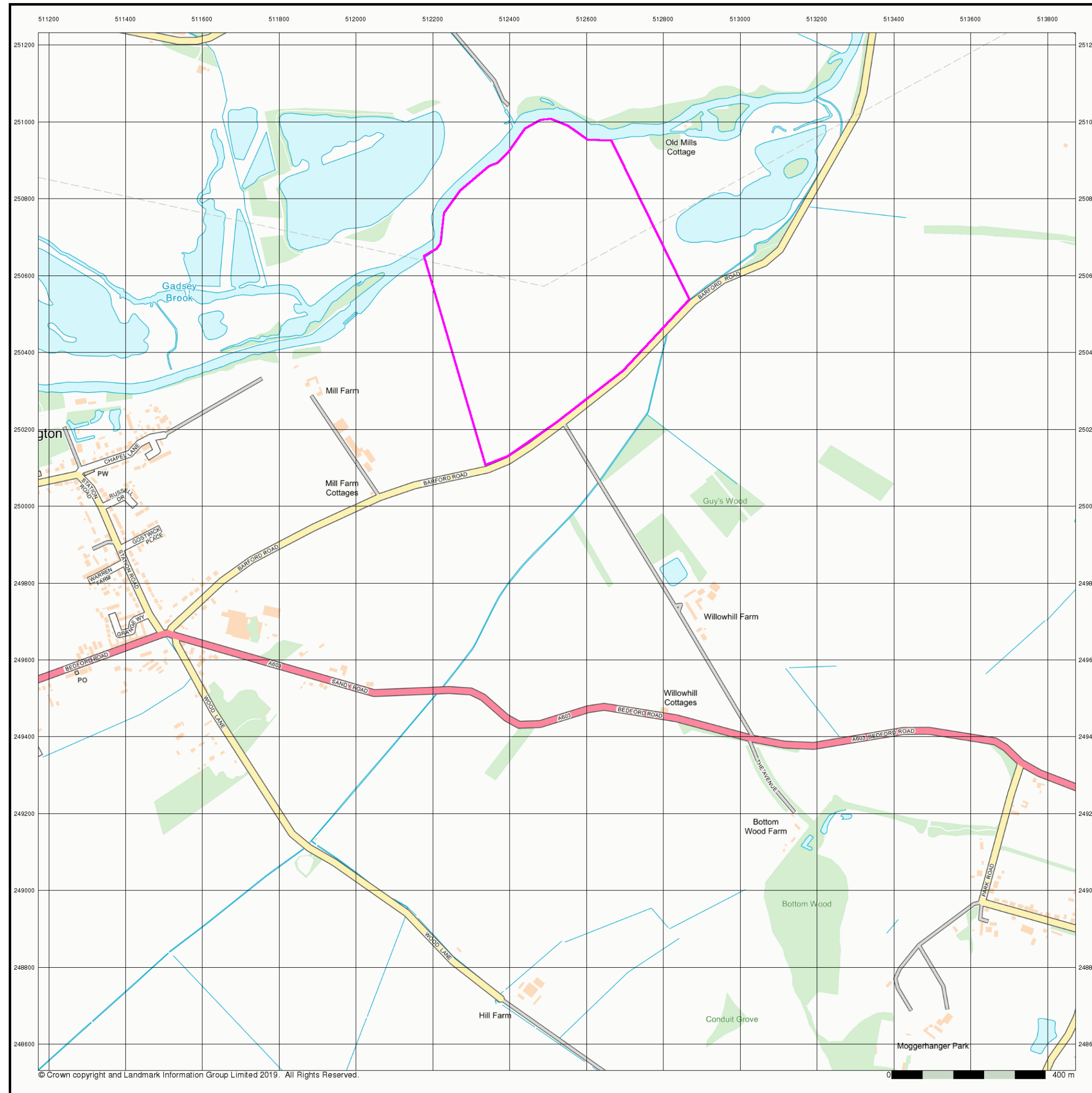
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Customer Ref:	BRE/WL/SE/1759/01
National Grid Reference:	512490, 250300
Slice:	A
Site Area (Ha):	37.42
Search Buffer (m):	1000

Site Details

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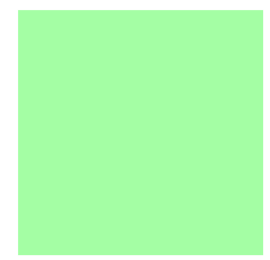
Street View

Published 2019

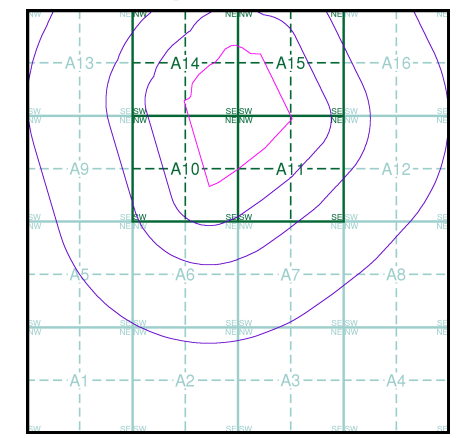
Source map scale - 1:10,000

Street View is a street-level map for the whole of Great Britain produced by the Ordnance Survey. These maps are provided at a nominal scale of 1:10,000

Map Name(s) and Date(s)



Street View Map - Slice A



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock

General

- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- 8 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 Enforcement
- ▲ Pollution Incident to Controlled Waters
- ▲ Prosecution Relating to Authorised Processes
- ▲ Prosecution Relating to Controlled Waters
- ▲ Registered Radioactive Substance
- + River Quality Sampling Point
- + Substantiated Pollution Incident Register
- ◆ Water Abstraction
- ◆ Water Industry Act Referral
- ▲ River Network or Water Feature
- + River Quality Sampling Point

Waste

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

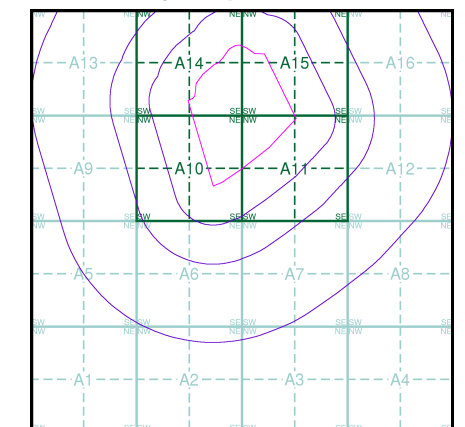
Geological

- ▲ BGS Recorded Mineral Site

Industrial Land Use

- ★ Contemporary Trade Directory Entry
- ★ Fuel Station Entry
- X COMAH Site
- X Explosive Site
- X NIHHS Site
- X Planning Hazardous Substance Consent
- X Planning Hazardous Substance Enforcement

Site Sensitivity Map - Slice A

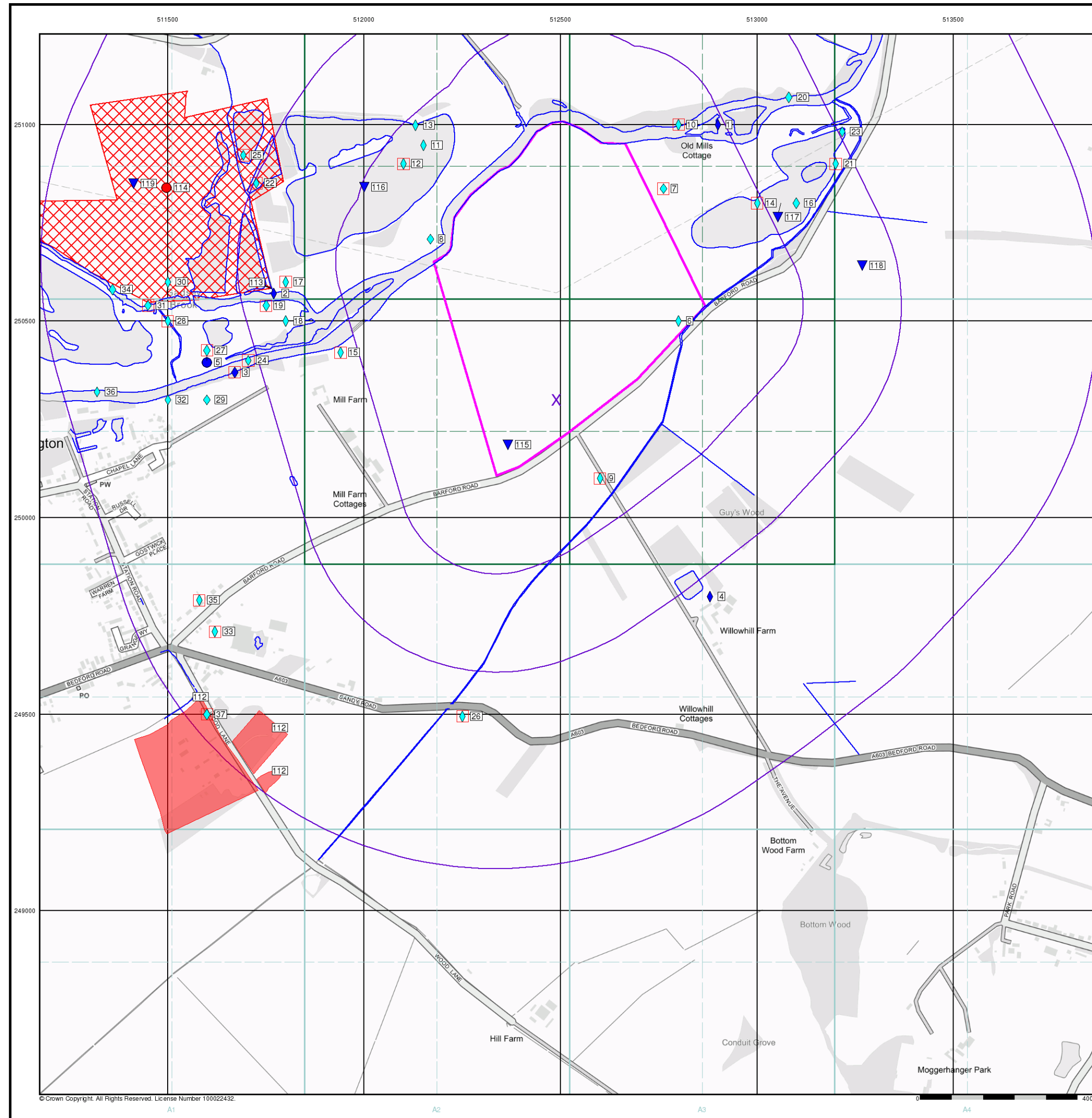


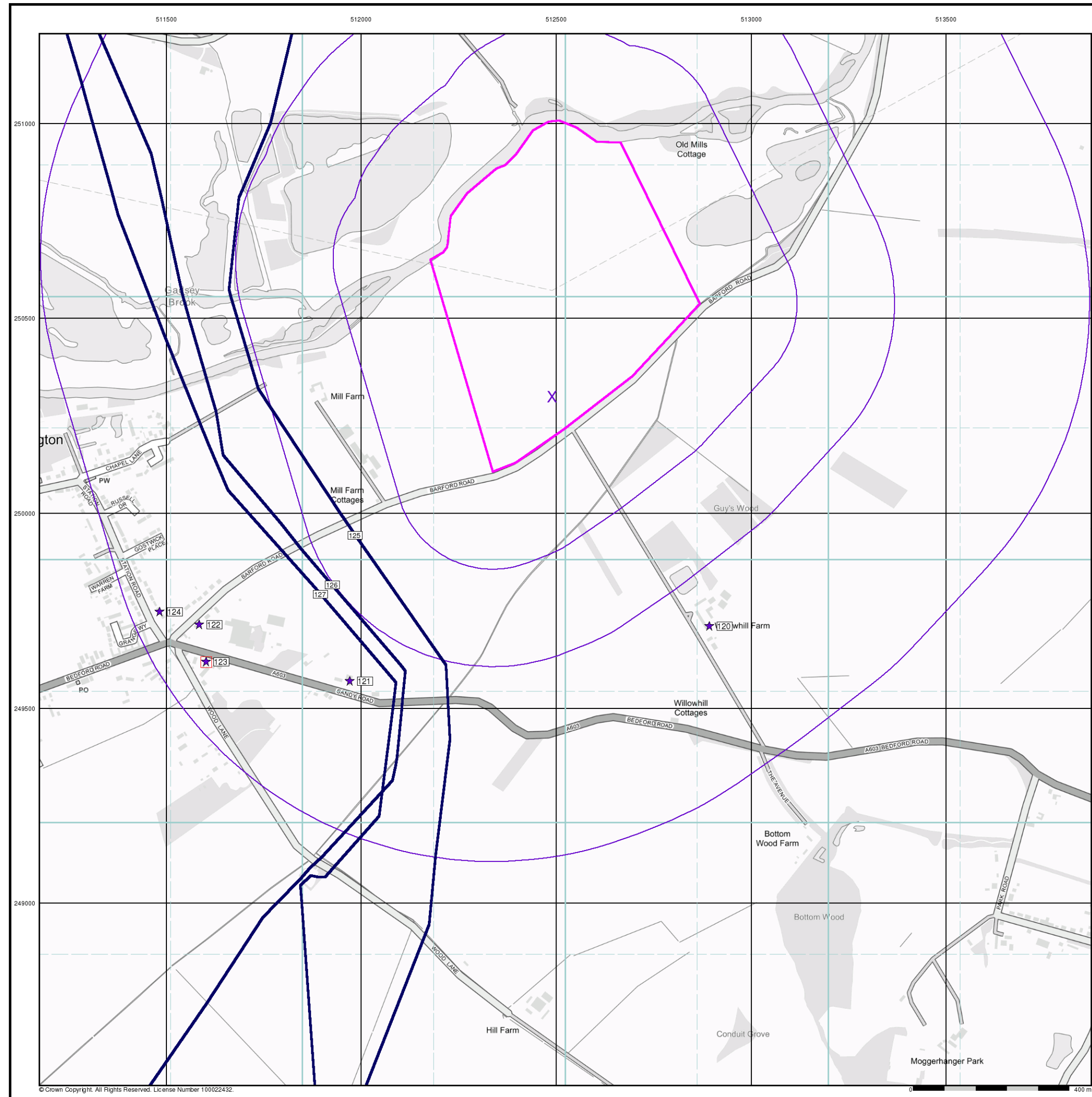
Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock





Industrial Land Use Map

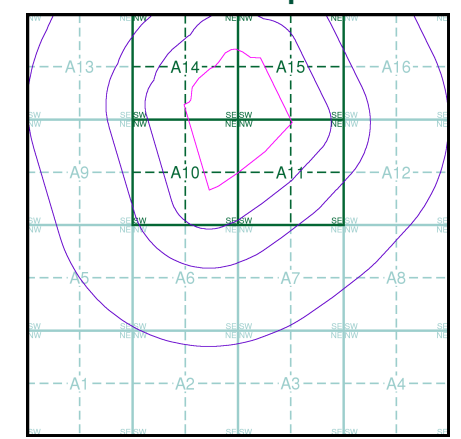
General

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

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000






Site Details

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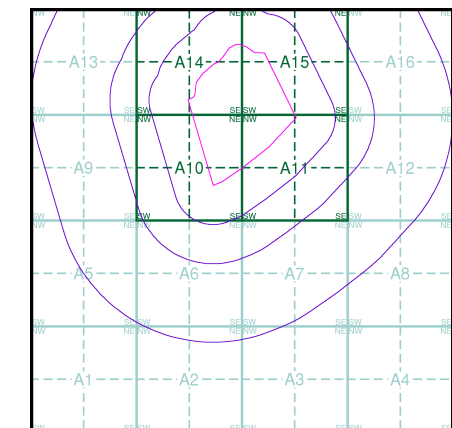
General

-  Specified Site
-  Specified Buffer(s)
-  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

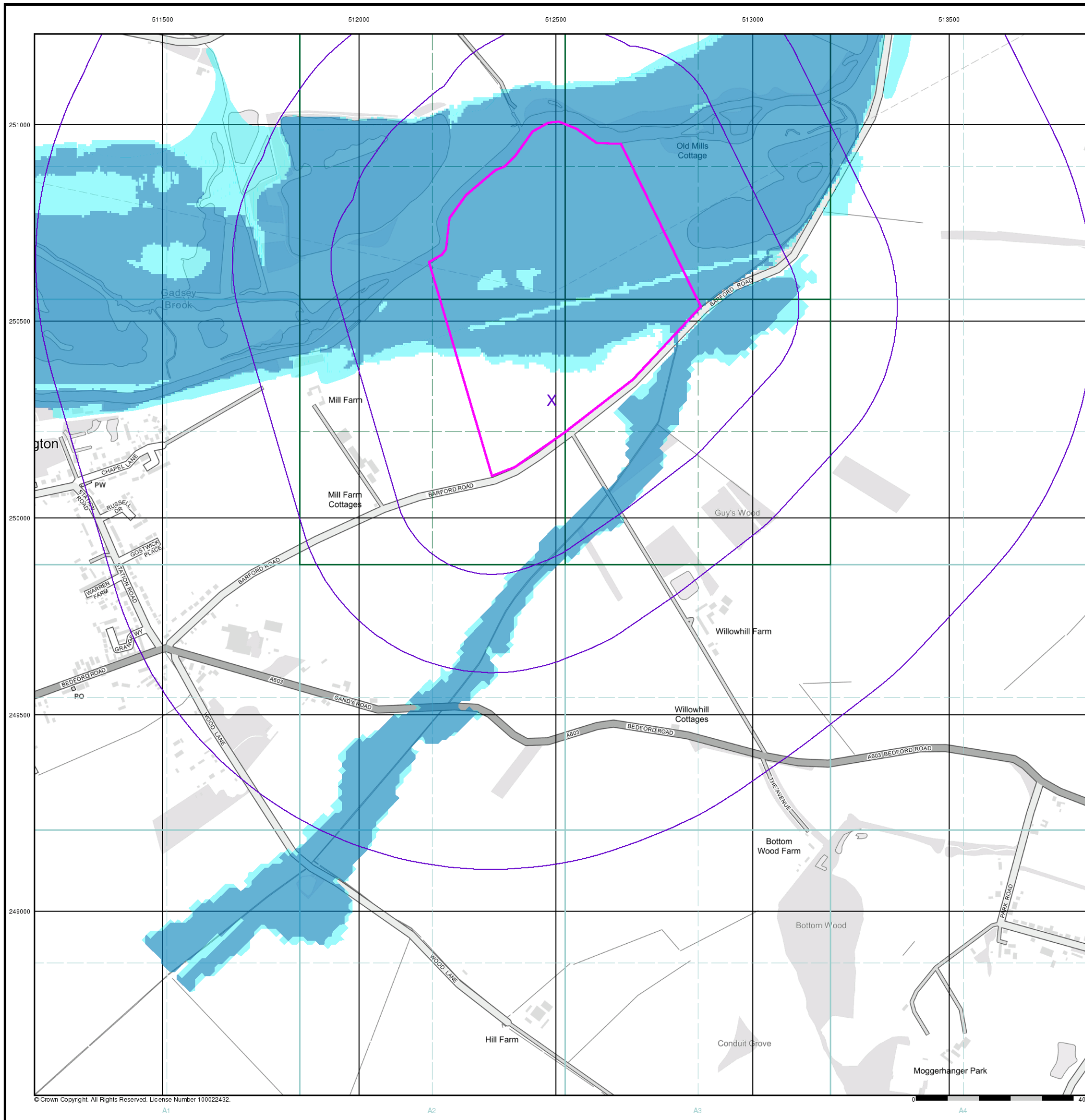


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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General

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

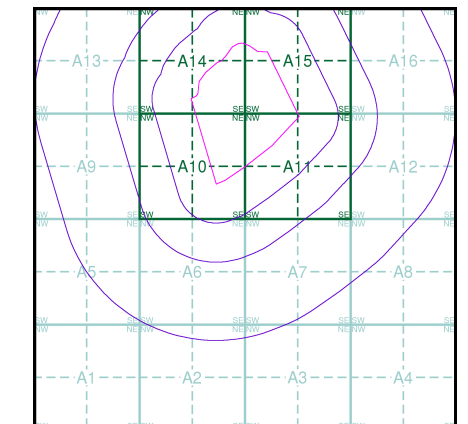
Agency and Hydrological (Boreholes)

- 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

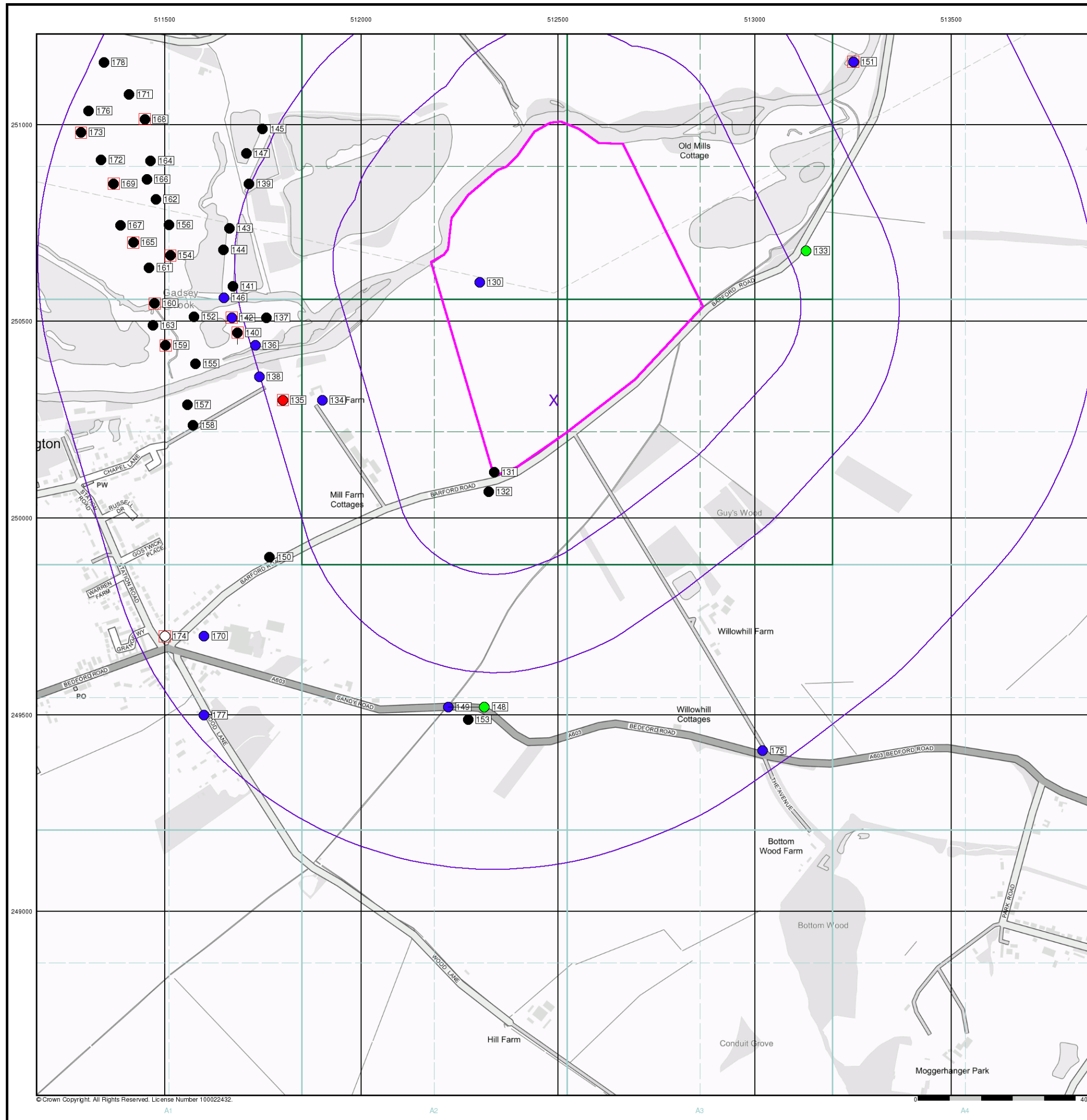


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
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 Search Buffer (m): 1000




Site Details

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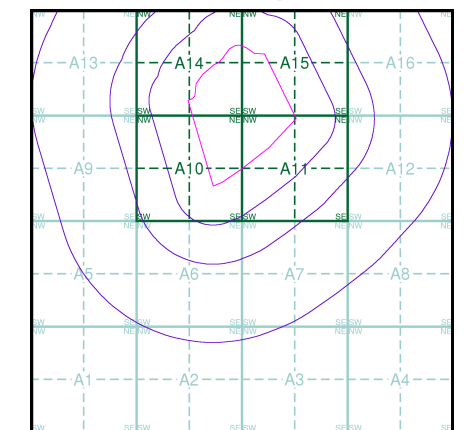
General

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

OS Water Network Data

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

OS Water Network Map - Slice A

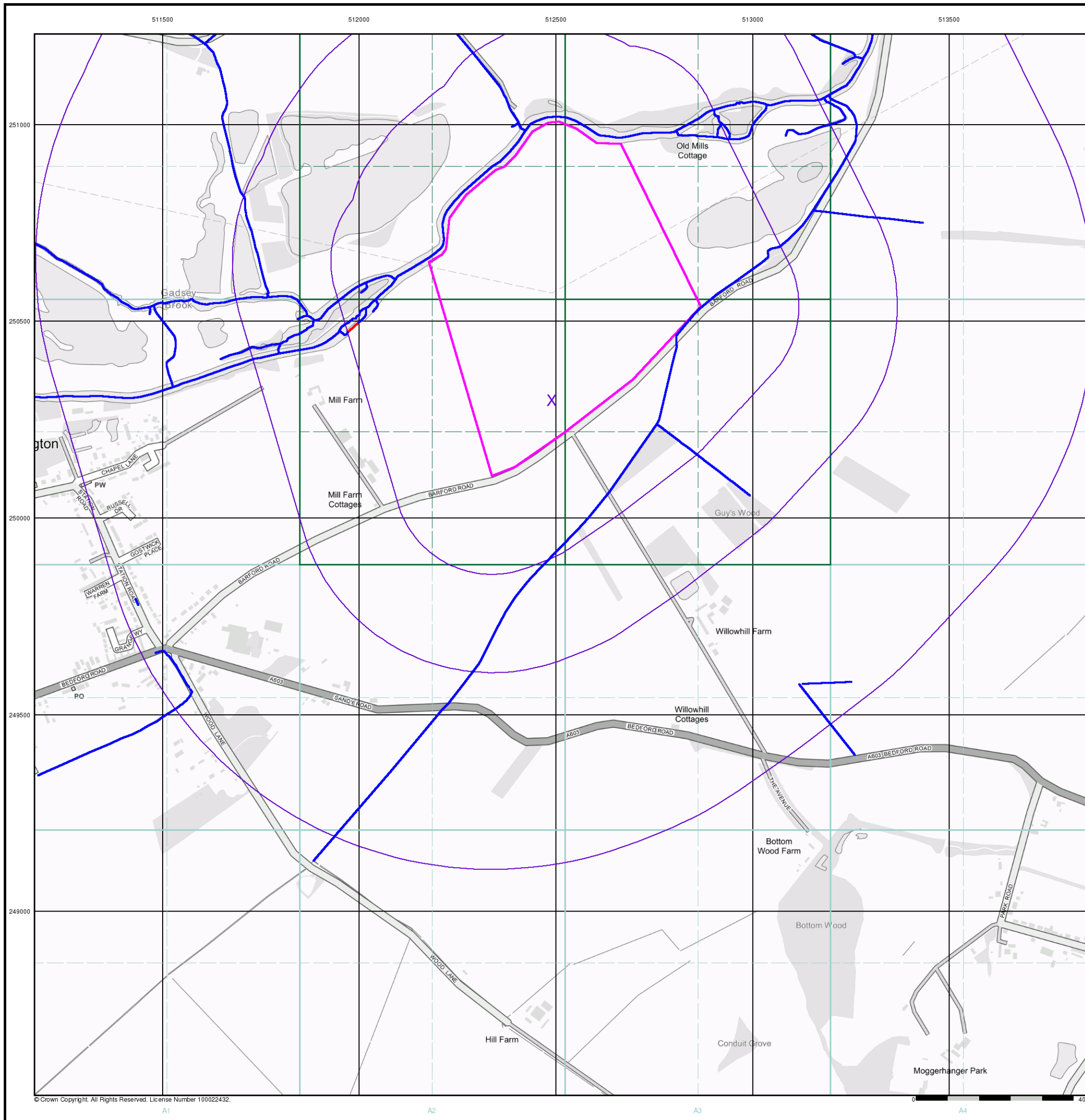


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
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Site Details

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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS 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 **SL** 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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
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
EI 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

Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
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
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI 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 Governor **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

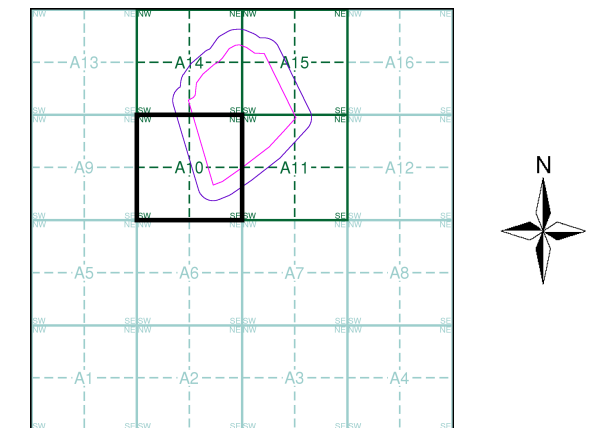
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Bedfordshire	1:2,500	1884	2
Bedfordshire	1:2,500	1901	3
Bedfordshire	1:2,500	1926	4
Ordnance Survey Plan	1:2,500	1973 - 1974	5
Additional SIMs	1:2,500	1974 - 1990	6
Large-Scale National Grid Data	1:2,500	1994	7

Historical Map - Segment A10



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

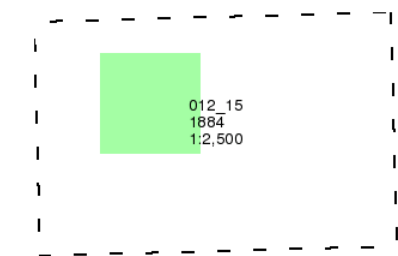
Willington Lock

Landmark
 INFORMATION GROUP

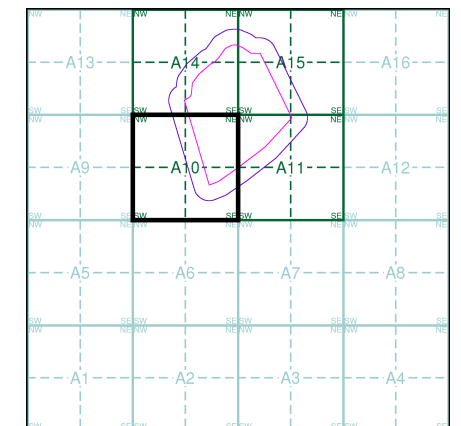
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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 A10

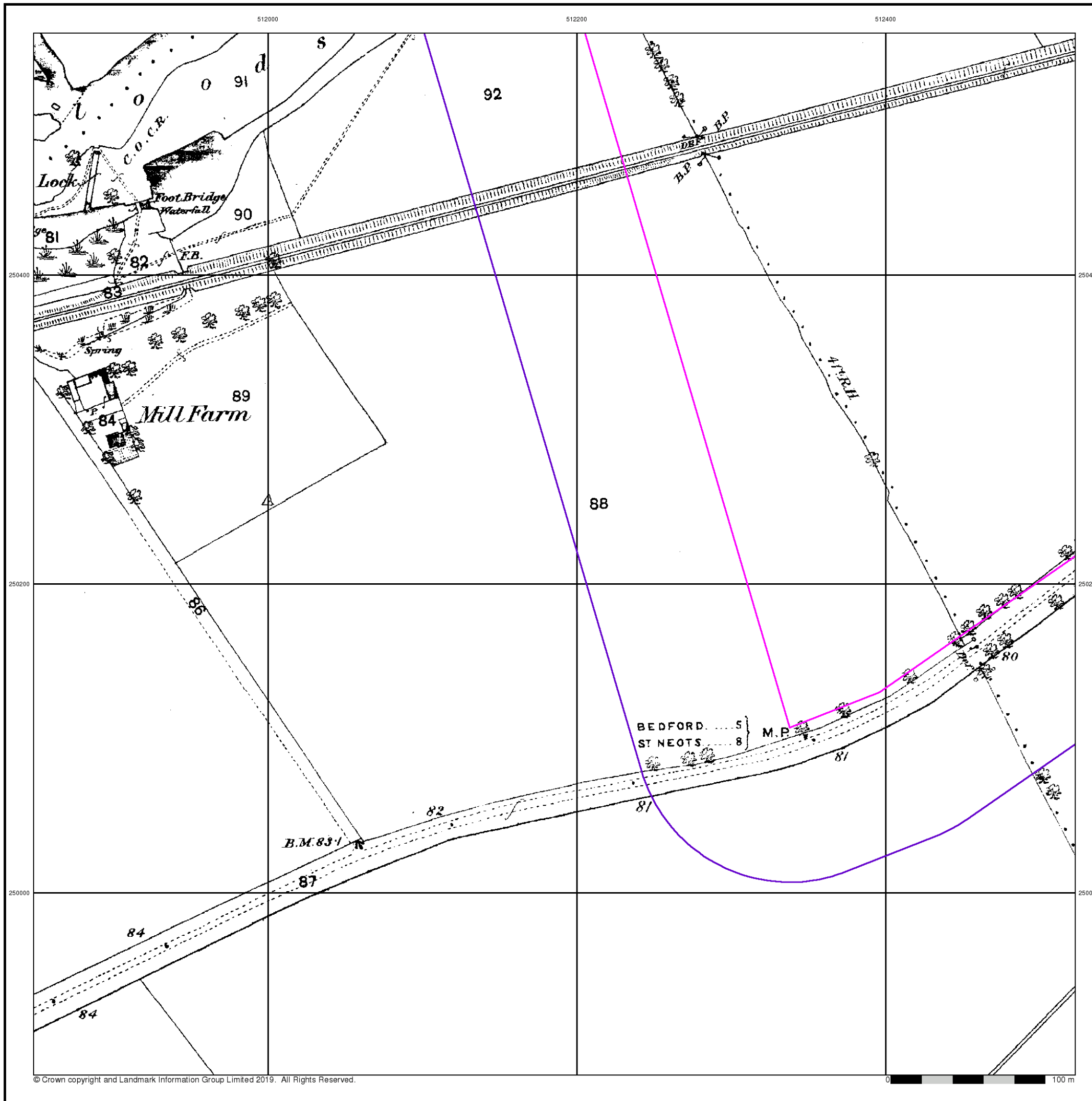


Order Details

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 Search Buffer (m): 100

Site Details

Willington Lock



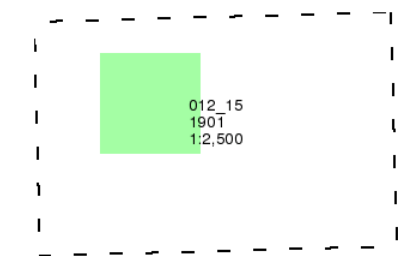
Bedfordshire

Published 1901

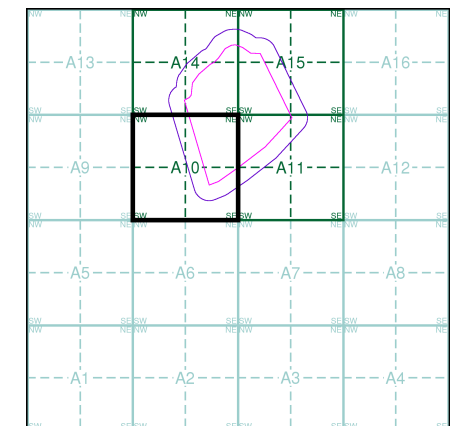
Source map scale - 1:2,500

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 A10

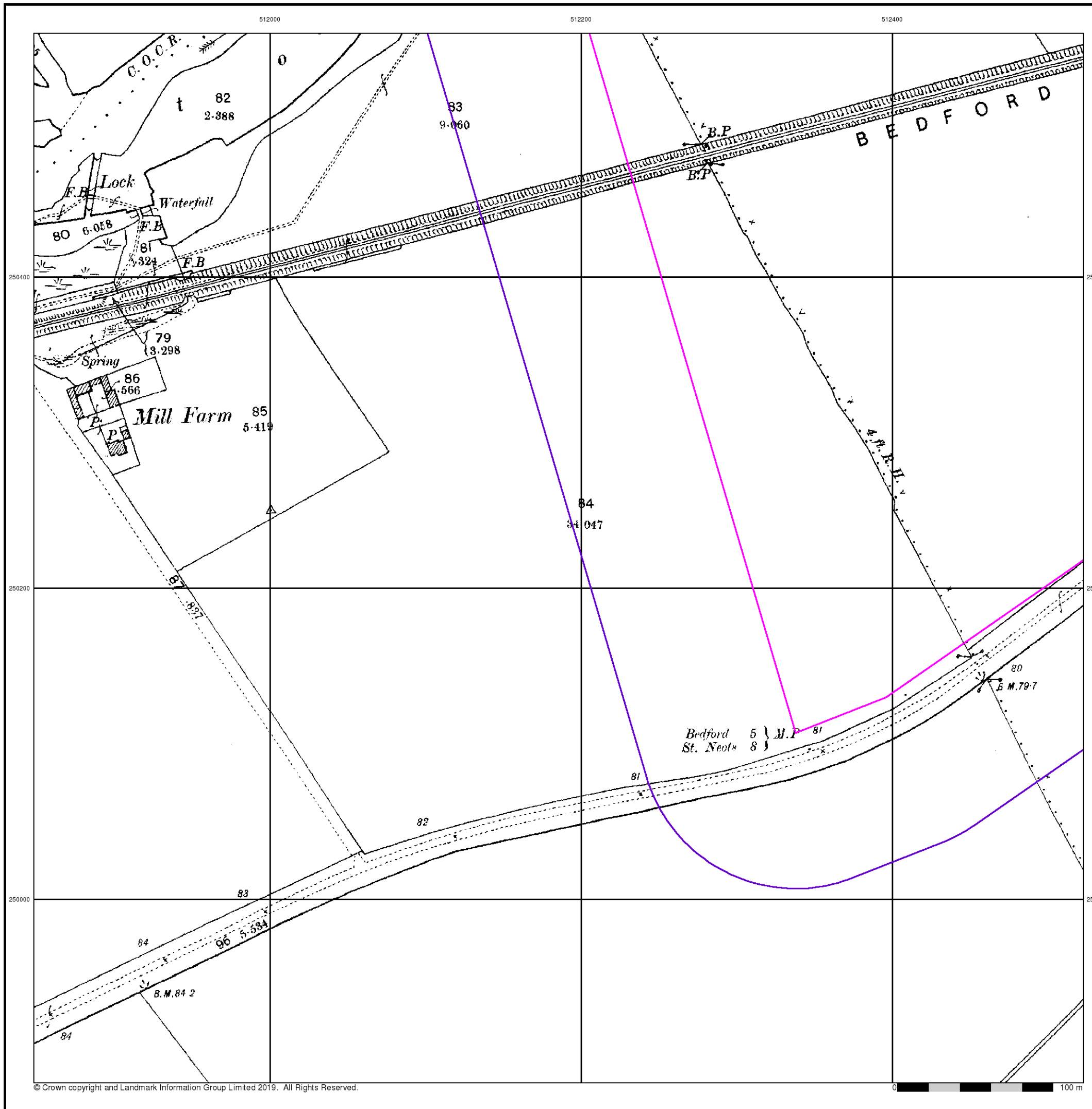


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



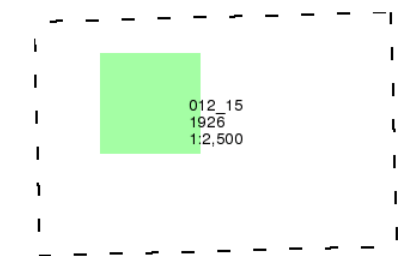
Bedfordshire

Published 1926

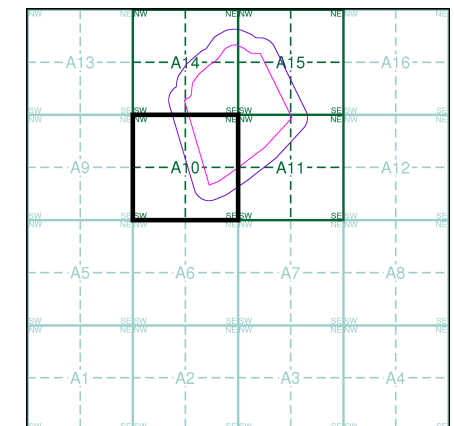
Source map scale - 1:2,500

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 A10

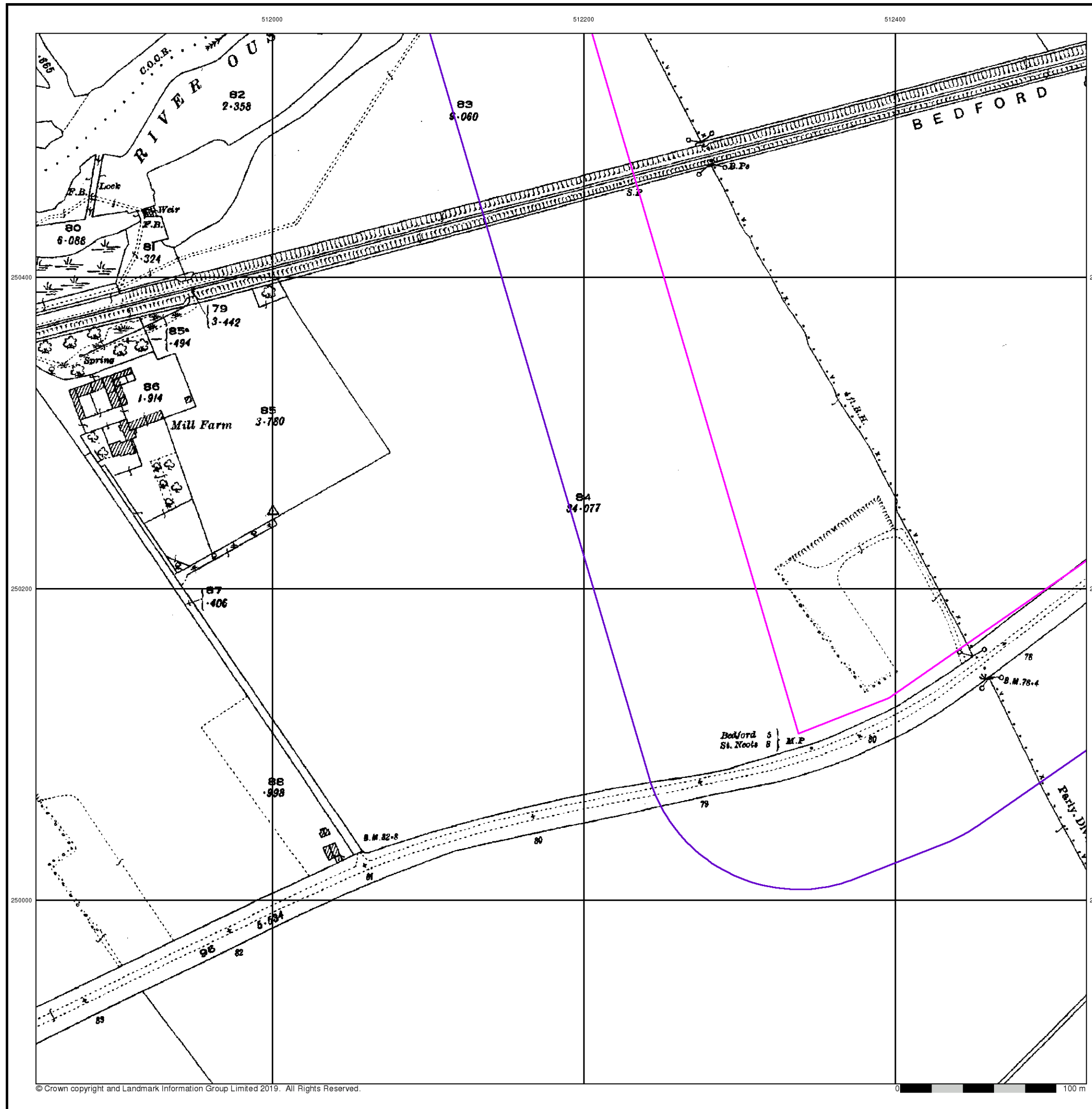


Order Details

Order Number: 222376098_1_1
Customer Ref: BRE/WL/SE/1759/01
National Grid Reference: 512490, 250300
Slice: A
Site Area (Ha): 37.42
Search Buffer (m): 100

Site Details

Willington Lock



Ordnance Survey Plan

Published 1973 - 1974

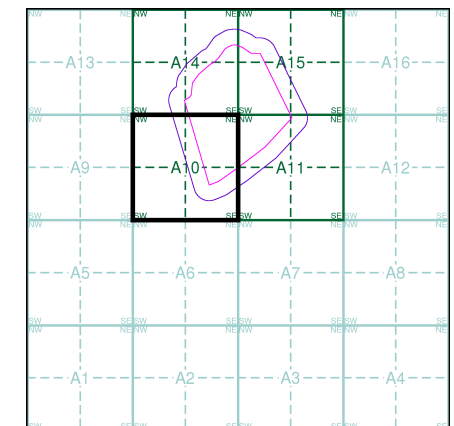
Source map scale - 1:2,500

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)

TL1150 1973 12,500	TL1250 1973 12,500
TL1149 1974 12,500	TL1249 1974 12,500

Historical Map - Segment A10

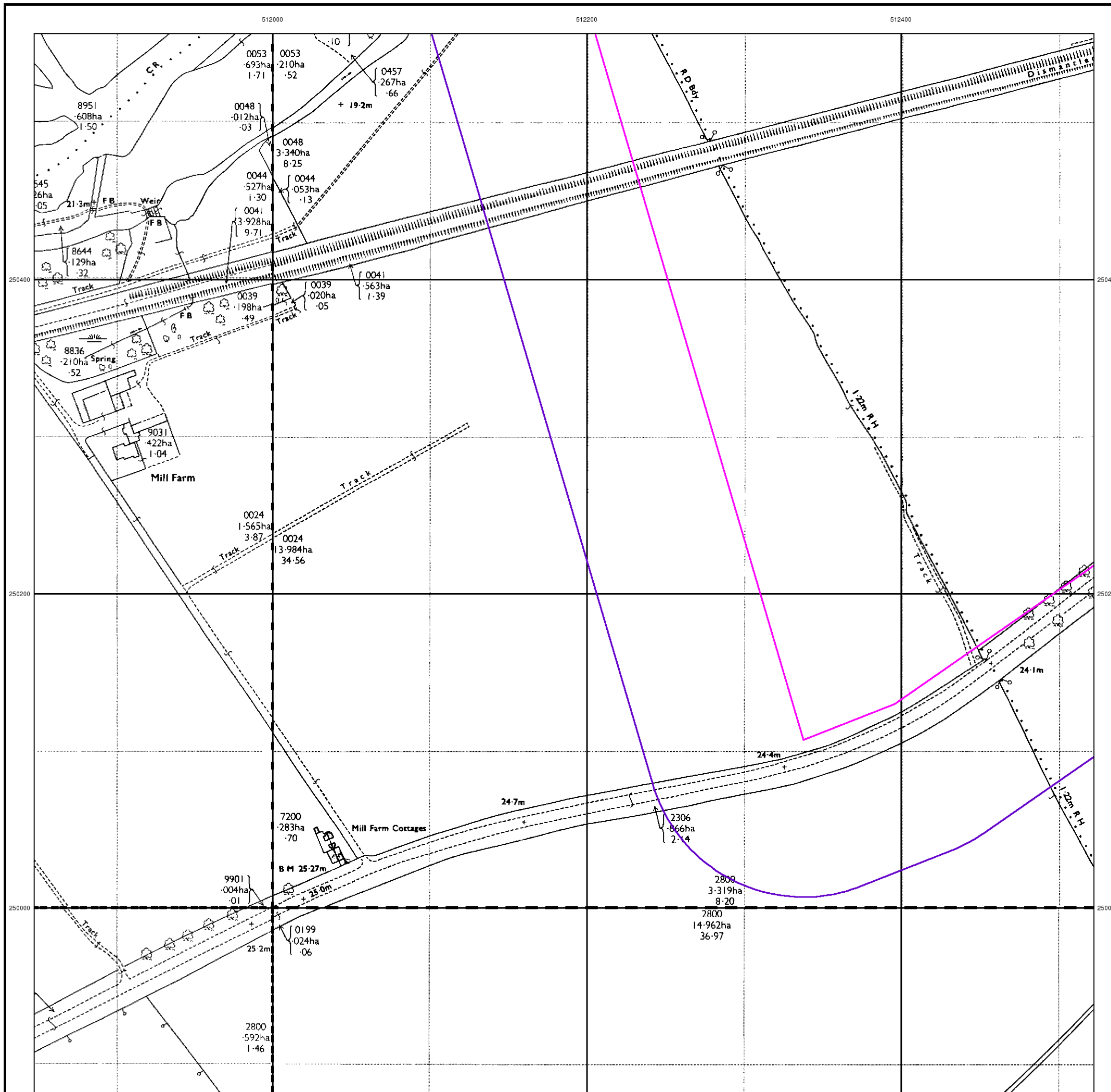


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock




Additional SIMs

Published 1974 - 1990

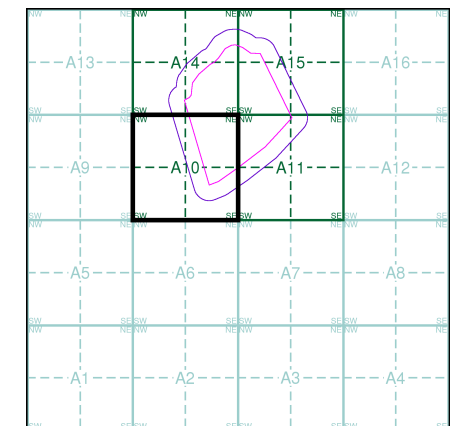
Source map scale - 1:2,500

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)

TL1150	1990	1:2,500	
TL1149	1974	1:2,500	

Historical Map - Segment A10

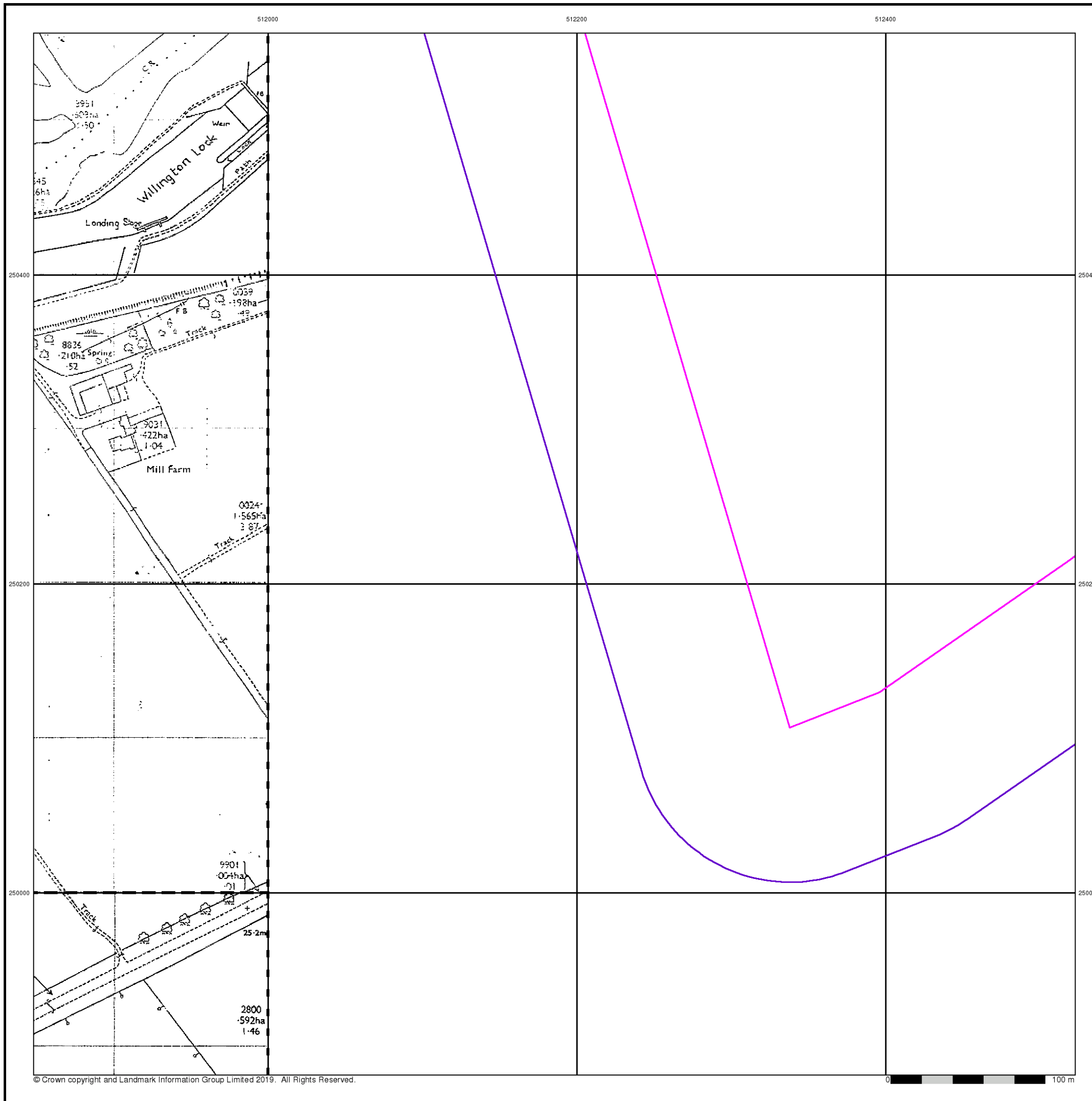


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



Large-Scale National Grid Data

Published 1994

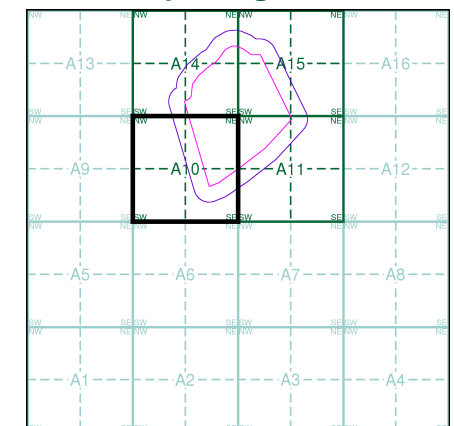
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

TL1150 1994 12,500	TL1250 1994 12,500
TL1149 1994 12,500	TL1249 1994 12,500

Historical Map - Segment A10

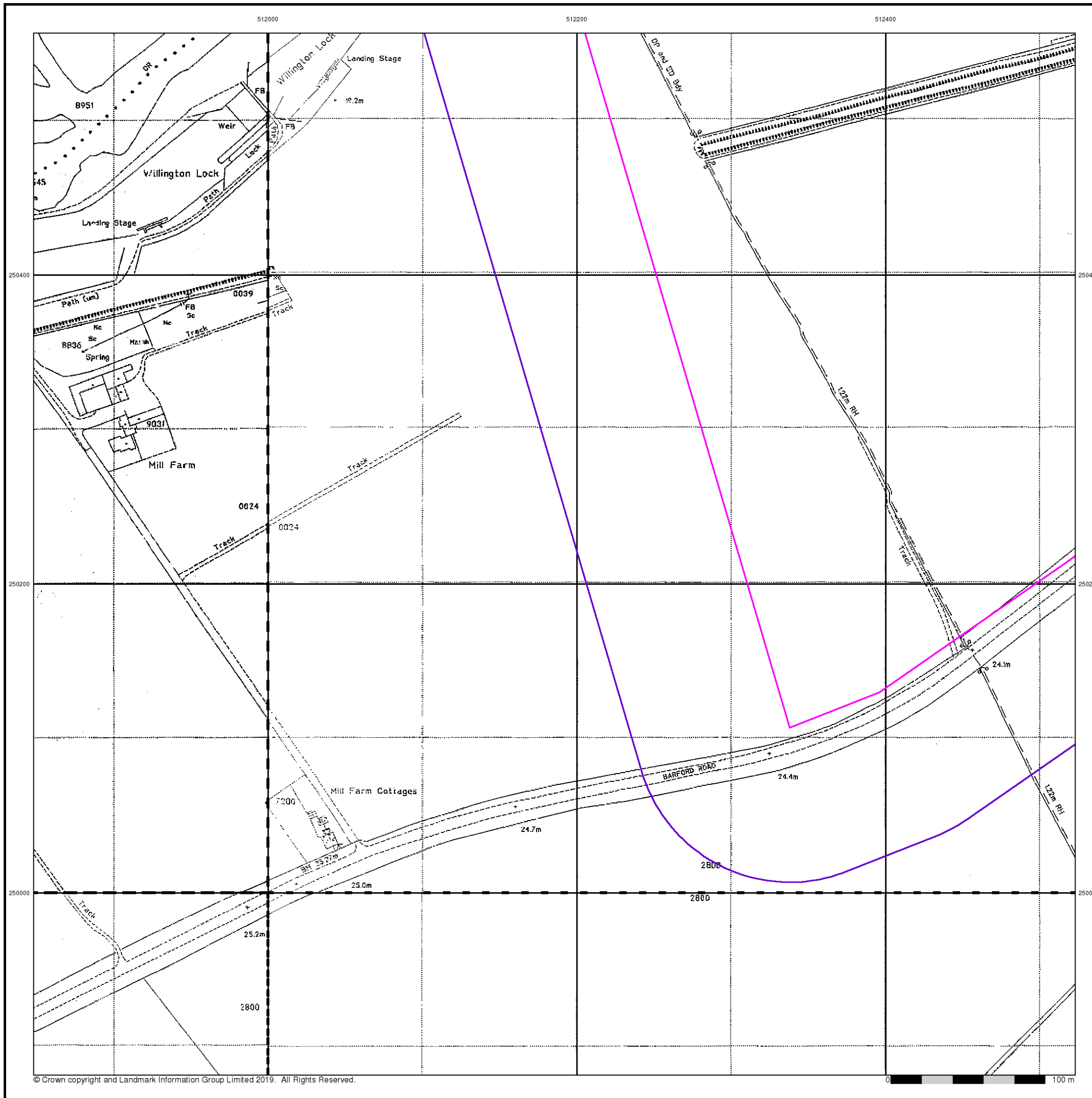


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. Bridle Road **Pump**
E.P. Electricity Pylon **S.P. Signal Post**
F.B. Foot Bridge **Sl. 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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
Beer House **Pillar, Pole or Post**
Boundary Post or Stone **Post Office**
Capstan, Crane **Public Convenience**
Chimney **Public House**
Drinking Fountain **Pump**
Electricity Pillar or Post **Signal Box or Bridge**
Fire Alarm Pillar **Signal Post or Light**
Foot Bridge **Spring**
Guide Post **Tank or Track**
Hydrant or Hydraulic **Telephone Call Box**
Level Crossing **Telephone Call Post**
Manhole **Trough**
Mile Post or Mooring Post **Water Point, Water Tap**
Mile Stone **Well**
Normal Tidal Limit **Wind Pump**

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

Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
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)
Barracks **Pillar, Pole or Post**
Battery **Post Office**
Cemetery **Public Convenience**
Chimney **Pump**
Cistern **Pumping Station**
Dismtd Rly **Place of Worship**
Electricity Generating Station **Sewage Ppg Sta** **Sewage Pumping Station**
Electricity Pole, Pillar **Signal Box or Bridge**
Electricity Sub Station **Signal Post or Light**
Filter Bed **Spring**
Fountain / Drinking Ftn. **Tank or Track**
Gas Valve Compound **Trough**
Gas Governor **Wind Pump**
Guide Post **Water Point, Water Tap**
Manhole **Works (building or area)**
Mile Post or Mile Stone **Well**

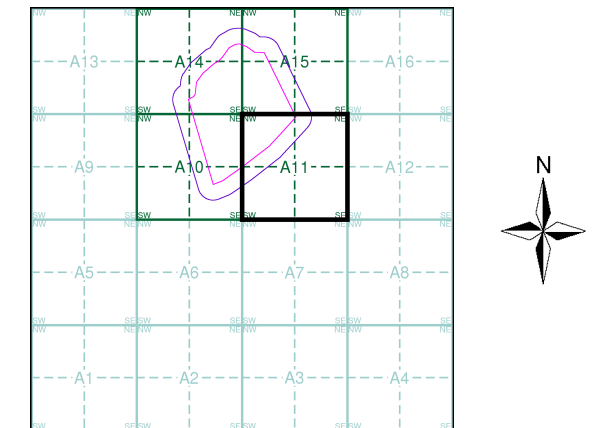
Envirocheck

LANDMARK INFORMATION GROUP

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Bedfordshire	1:2,500	1884	2
Bedfordshire	1:2,500	1901	3
Bedfordshire	1:2,500	1926	4
Ordnance Survey Plan	1:2,500	1973 - 1974	5
Large-Scale National Grid Data	1:2,500	1994	6

Historical Map - Segment A11



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

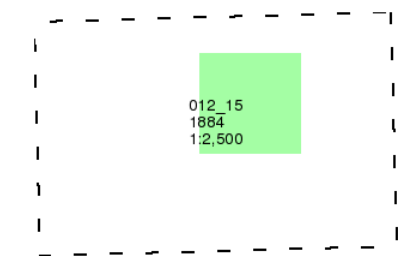
Willington Lock

Landmark
INFORMATION GROUP

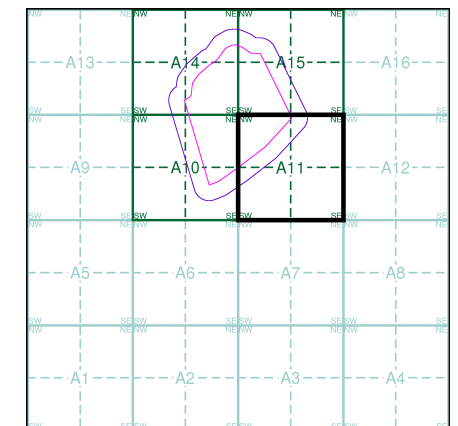
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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Map Name(s) and Date(s)



Historical Map - Segment A11

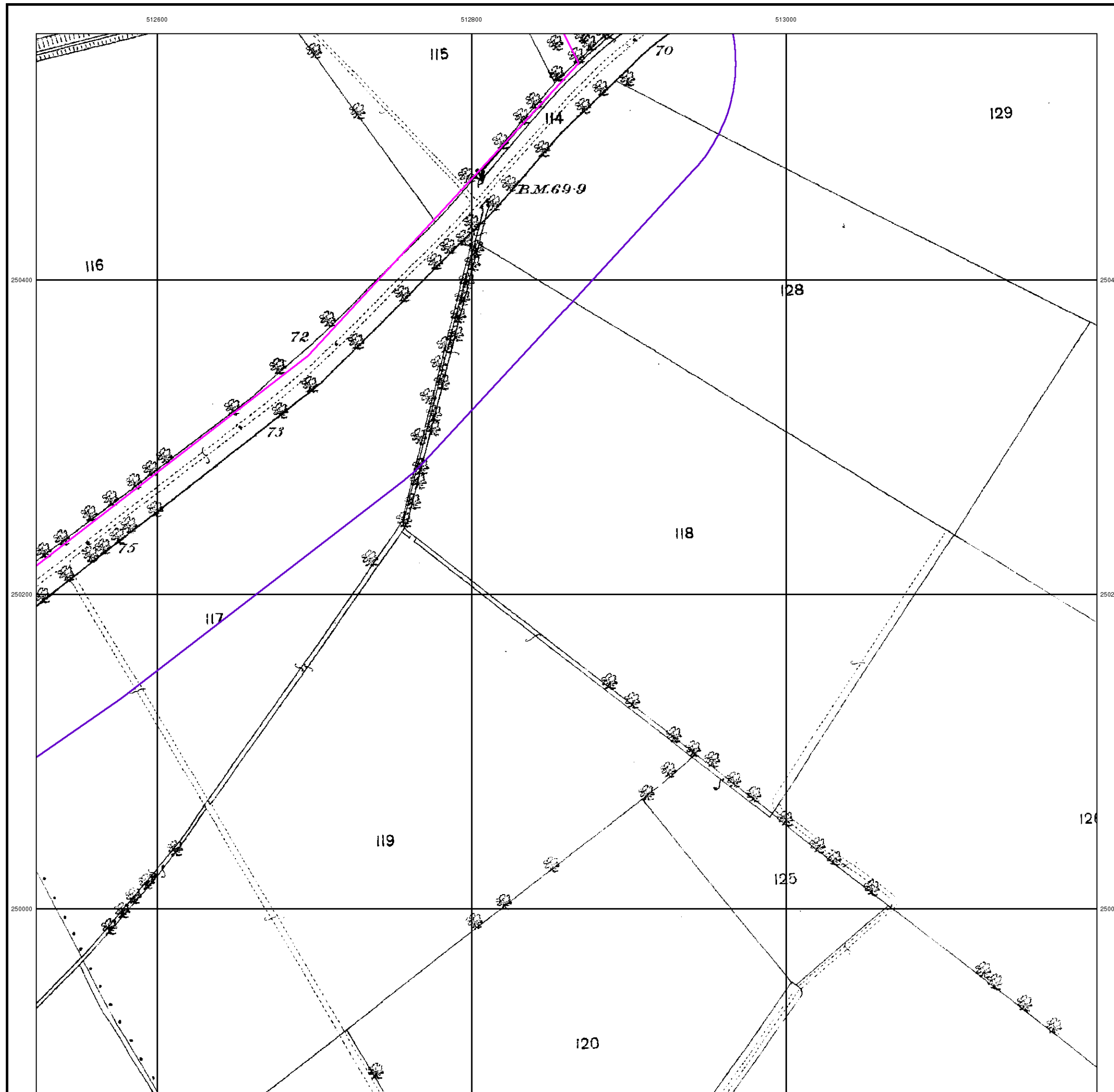


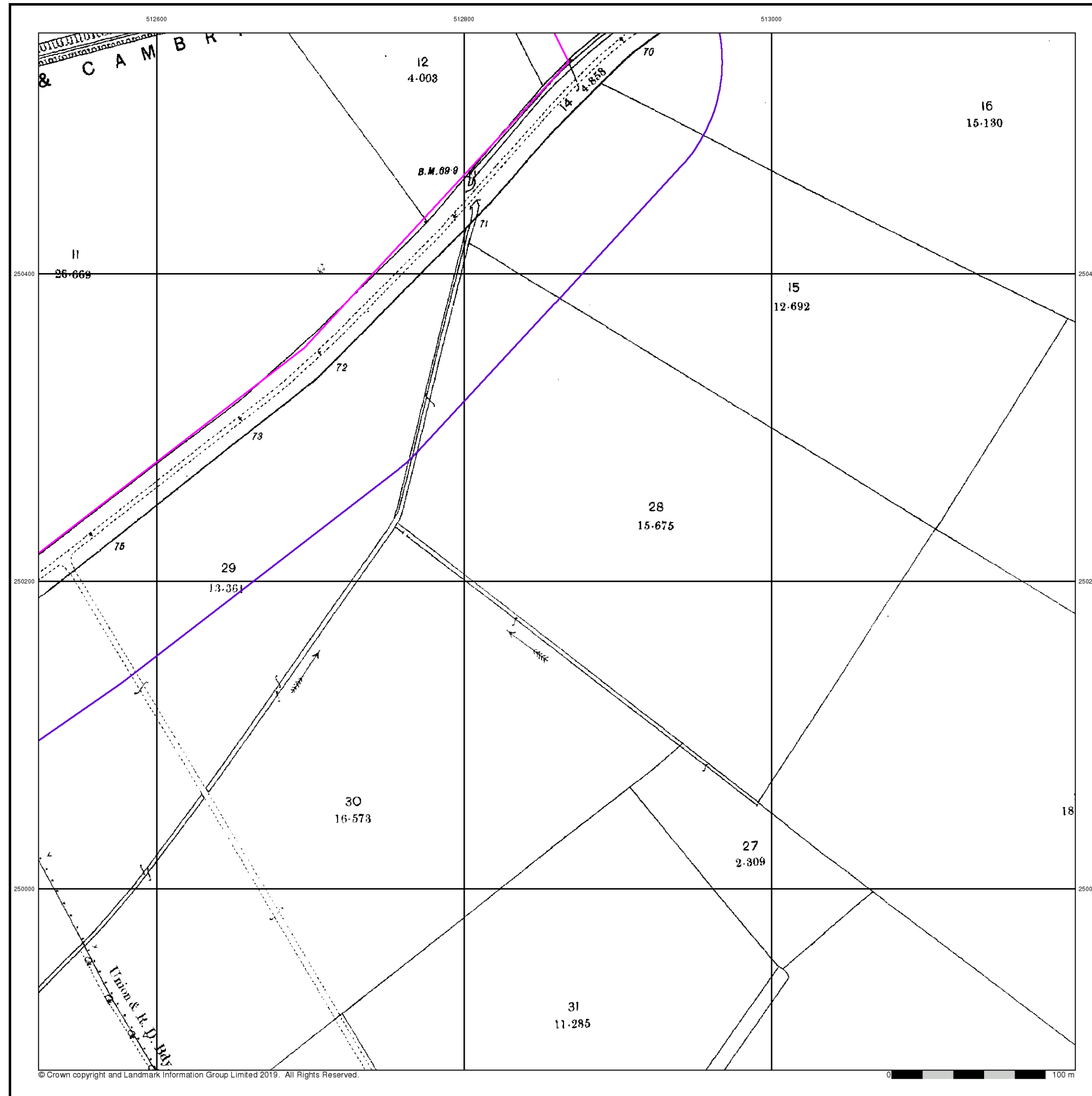
Order Details

Order Number: 222376098_1_1
Customer Ref: BRE/WL/SE/1759/01
National Grid Reference: 512490, 250300
Slice: A
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Site Details

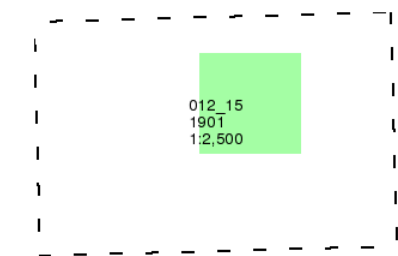
Willington Lock



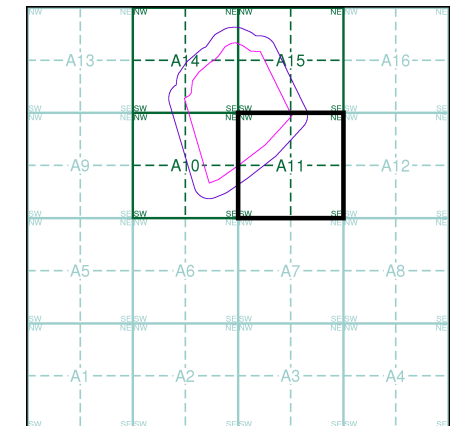


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Map Name(s) and Date(s)



Historical Map - Segment A11

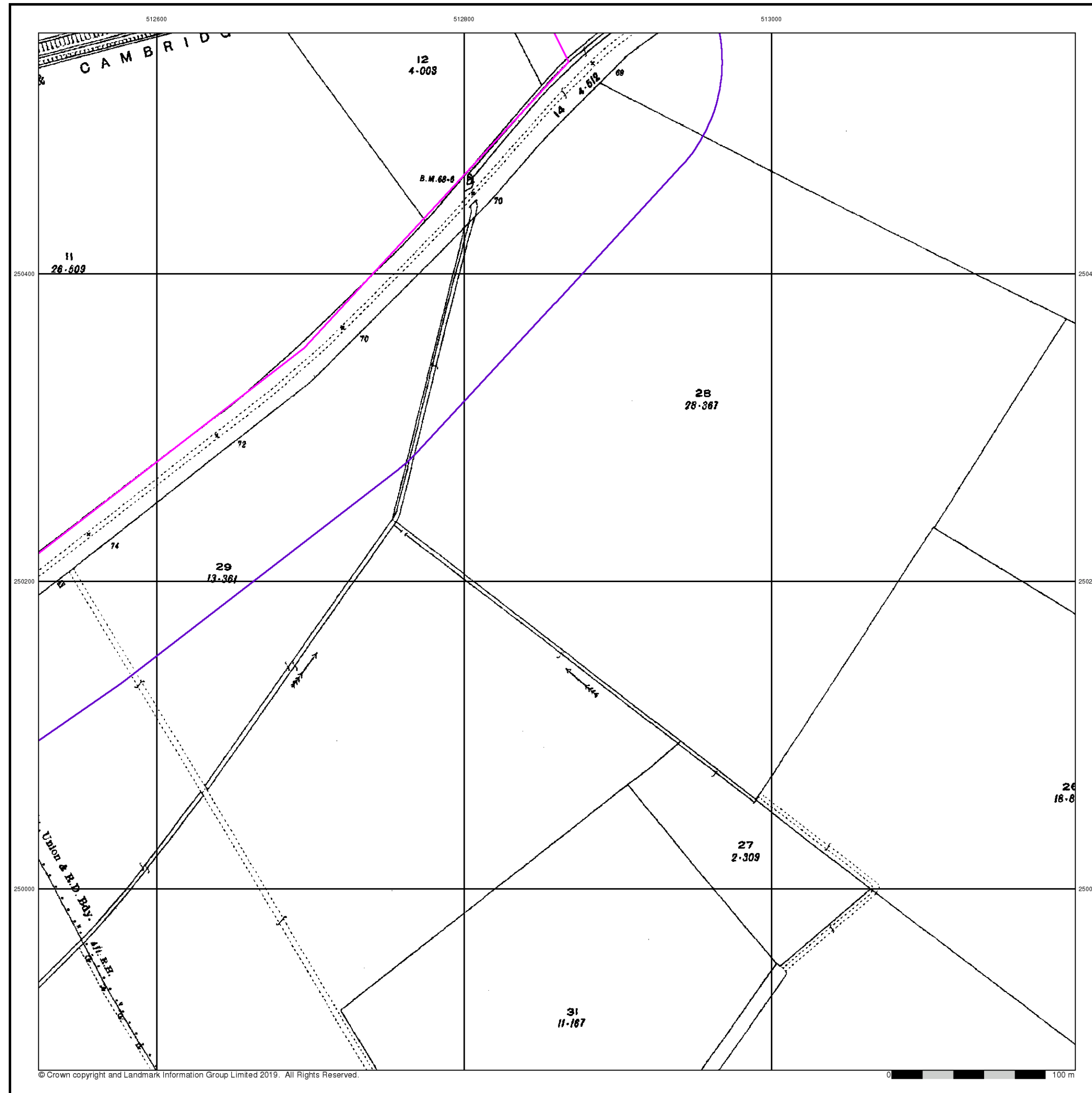


Order Details

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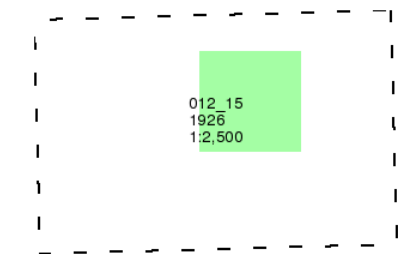
Site Details

Willington Lock

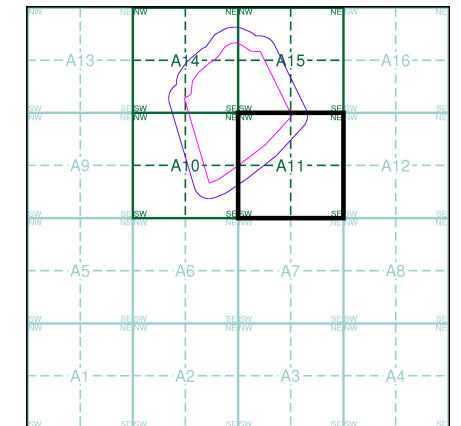


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A11



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock

Ordnance Survey Plan

Published 1973 - 1974

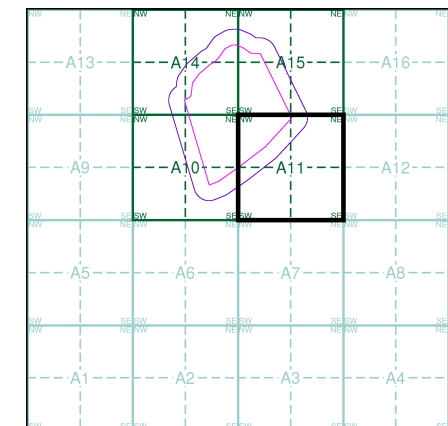
Source map scale - 1:2,500

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)

TL1250 1973 12,500	TL1350 1973 12,500
TL1249 1974 12,500	TL1349 1974 12,500

Historical Map - Segment A11

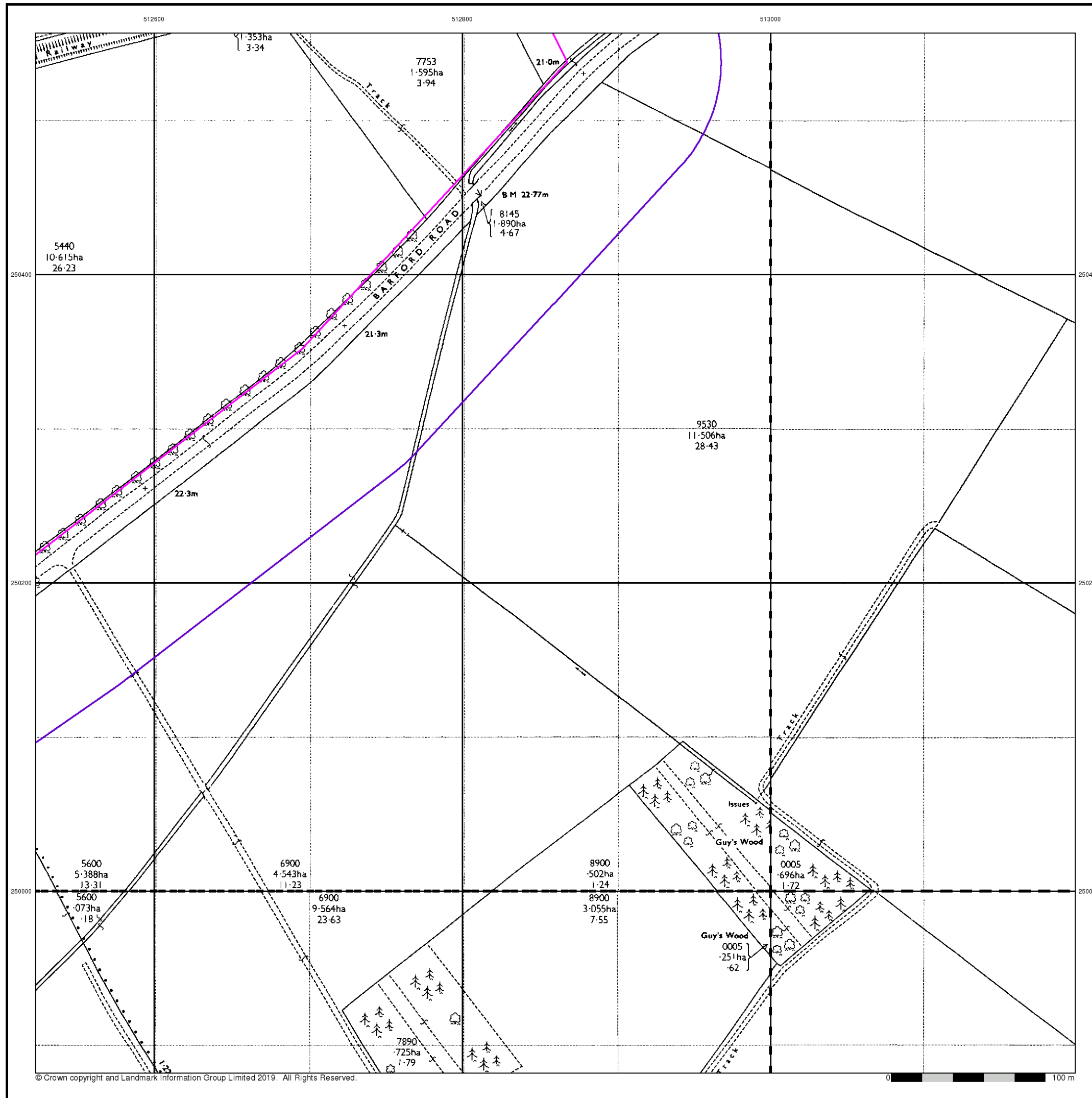


Order Details

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 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



Large-Scale National Grid Data

Published 1994

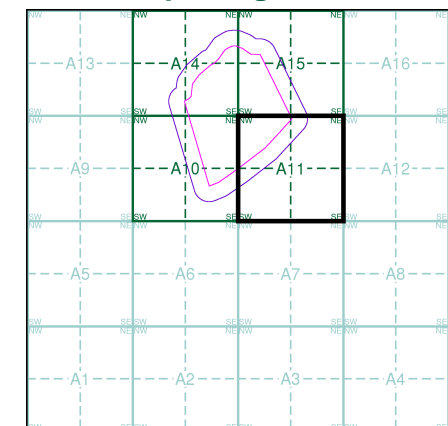
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

TL 1250 1994 1:2,500	TL 1350 1994 1:2,500
TL 1249 1994 1:2,500	TL 1349 1994 1:2,500

Historical Map - Segment A11

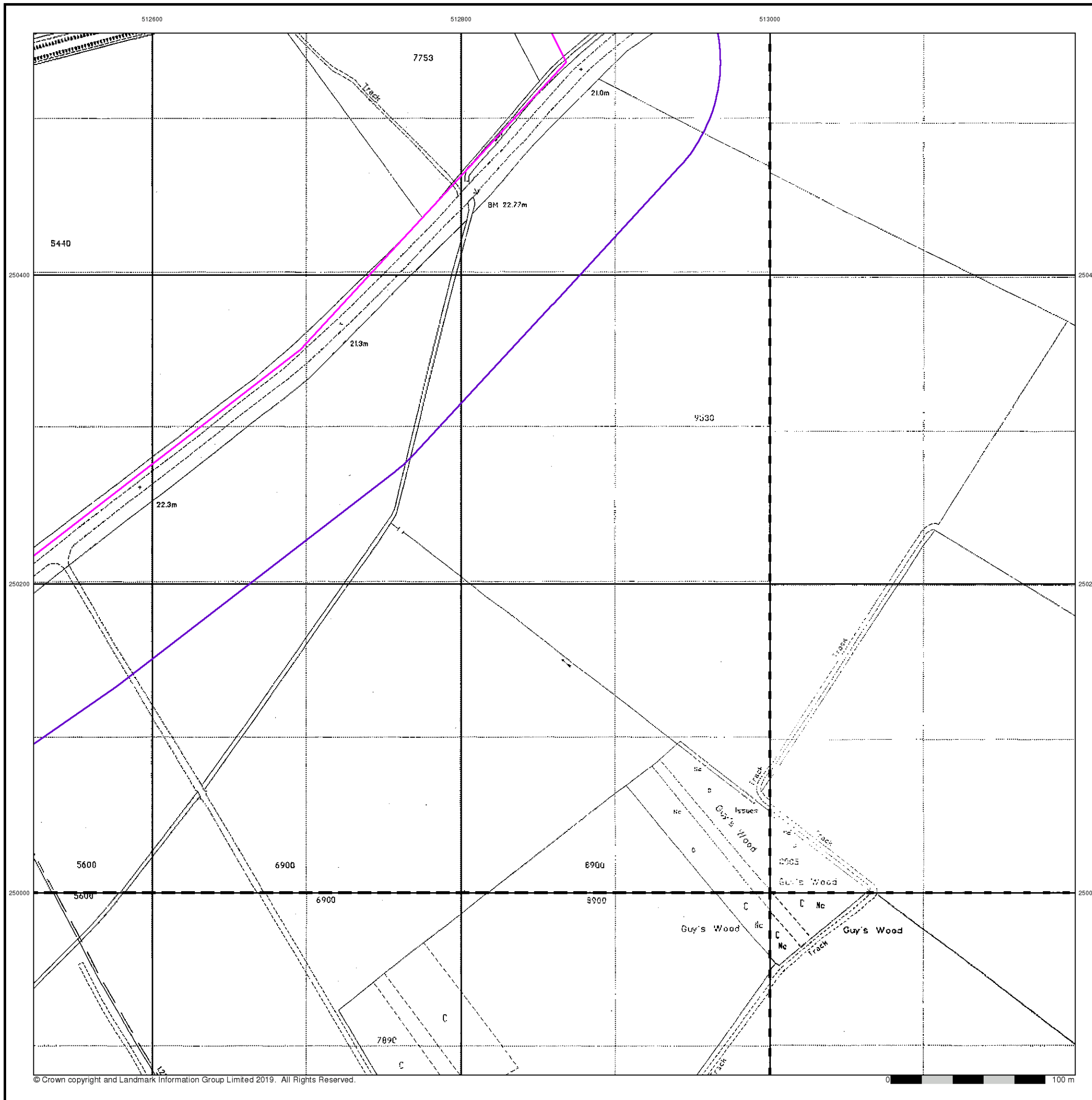


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
Co. Boro. Bdy.
County Burgh Boundary (Scotland)
Boundary Post or Stone **Police Call Box**
B.R. **Bridle Road** **P** **Pump**
E.P. **Electricity Pylon** **S.P.** **Signal Post**
F.B. **Foot Bridge** **SL** **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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
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**
EI 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

Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m **Bench Mark** **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
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**
EI Gen Sta **Electricity Generating Station** **Sewage Ppg Sta** **Sewage Pumping Station**
EI P **Electricity Pole, Pillar** **SB, S Br** **Signal Box or Bridge**
EI 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 Governor** **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**

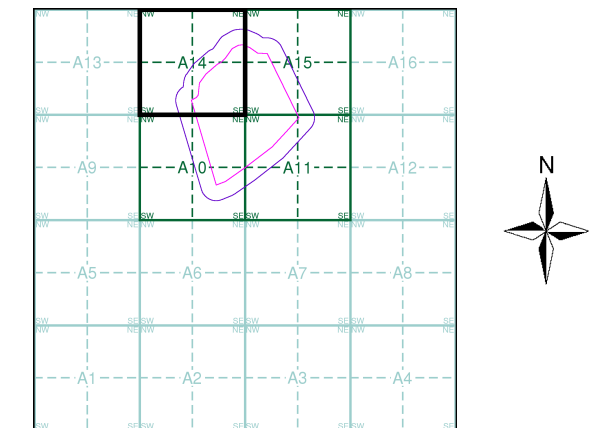
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Bedfordshire	1:2,500	1884	2
Bedfordshire	1:2,500	1901	3
Bedfordshire	1:2,500	1926	4
Ordnance Survey Plan	1:2,500	1973	5
Additional SIMs	1:2,500	1990	6
Large-Scale National Grid Data	1:2,500	1994	7

Historical Map - Segment A14



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock

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

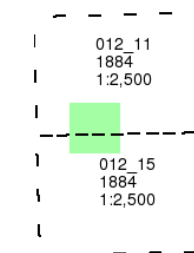
Bedfordshire

Published 1884

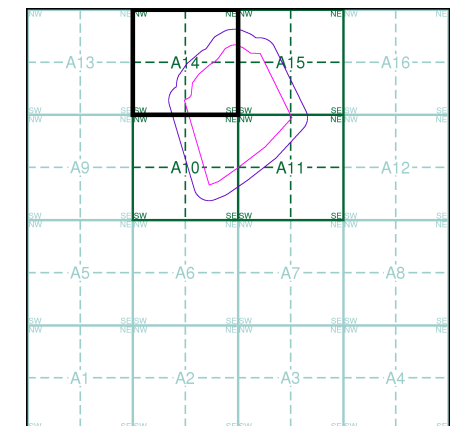
Source map scale - 1:2,500

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 A14

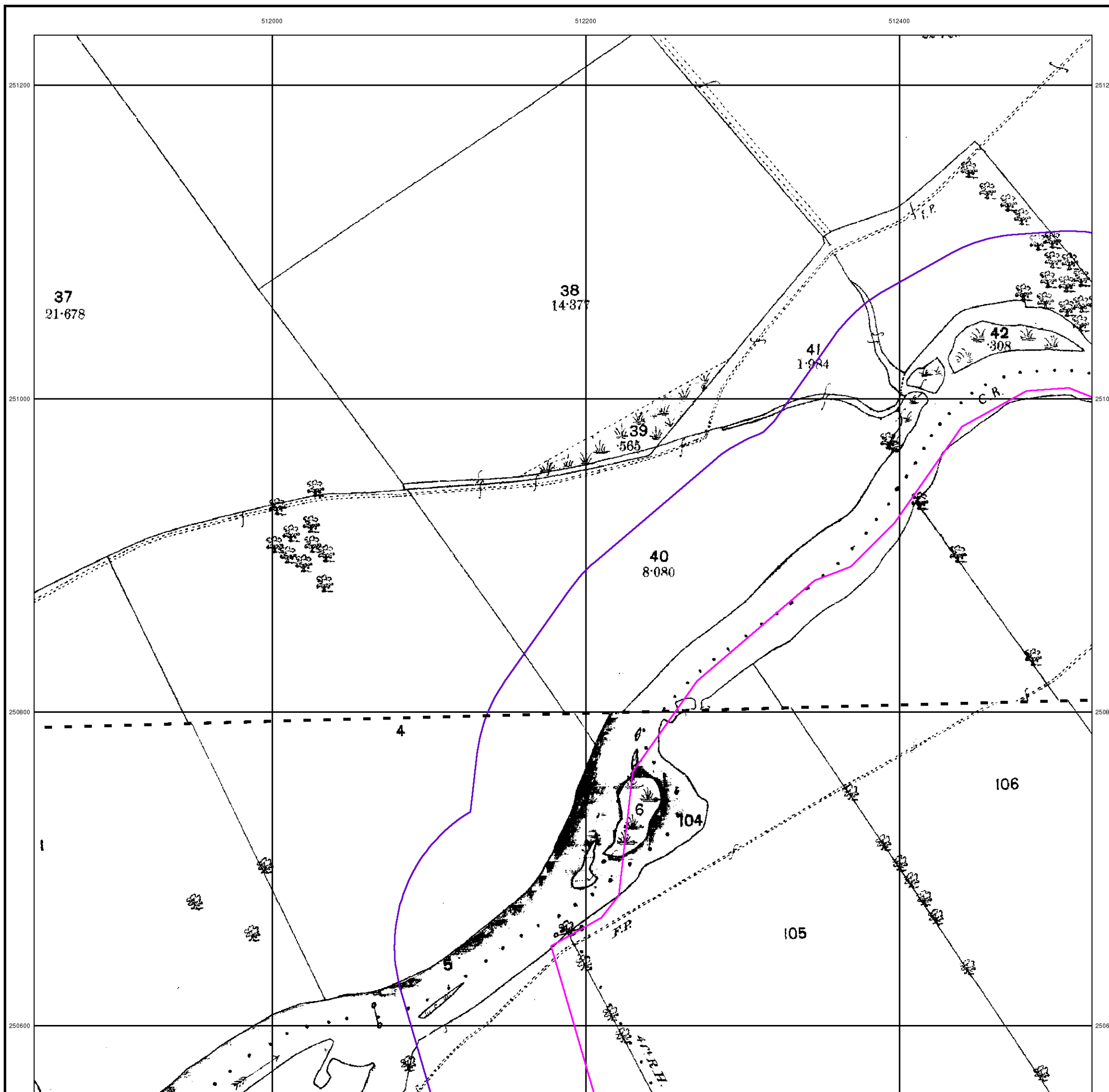


Order Details

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National Grid Reference: 512490, 250300
Slice: A
Site Area (Ha): 37.42
Search Buffer (m): 100

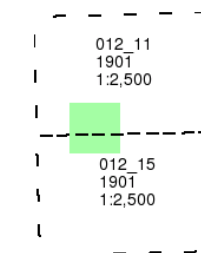
Site Details

Willington Lock

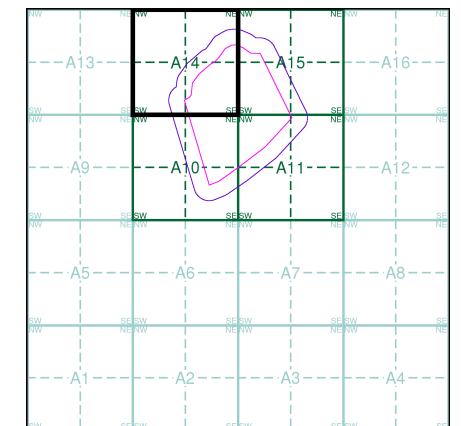


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A14

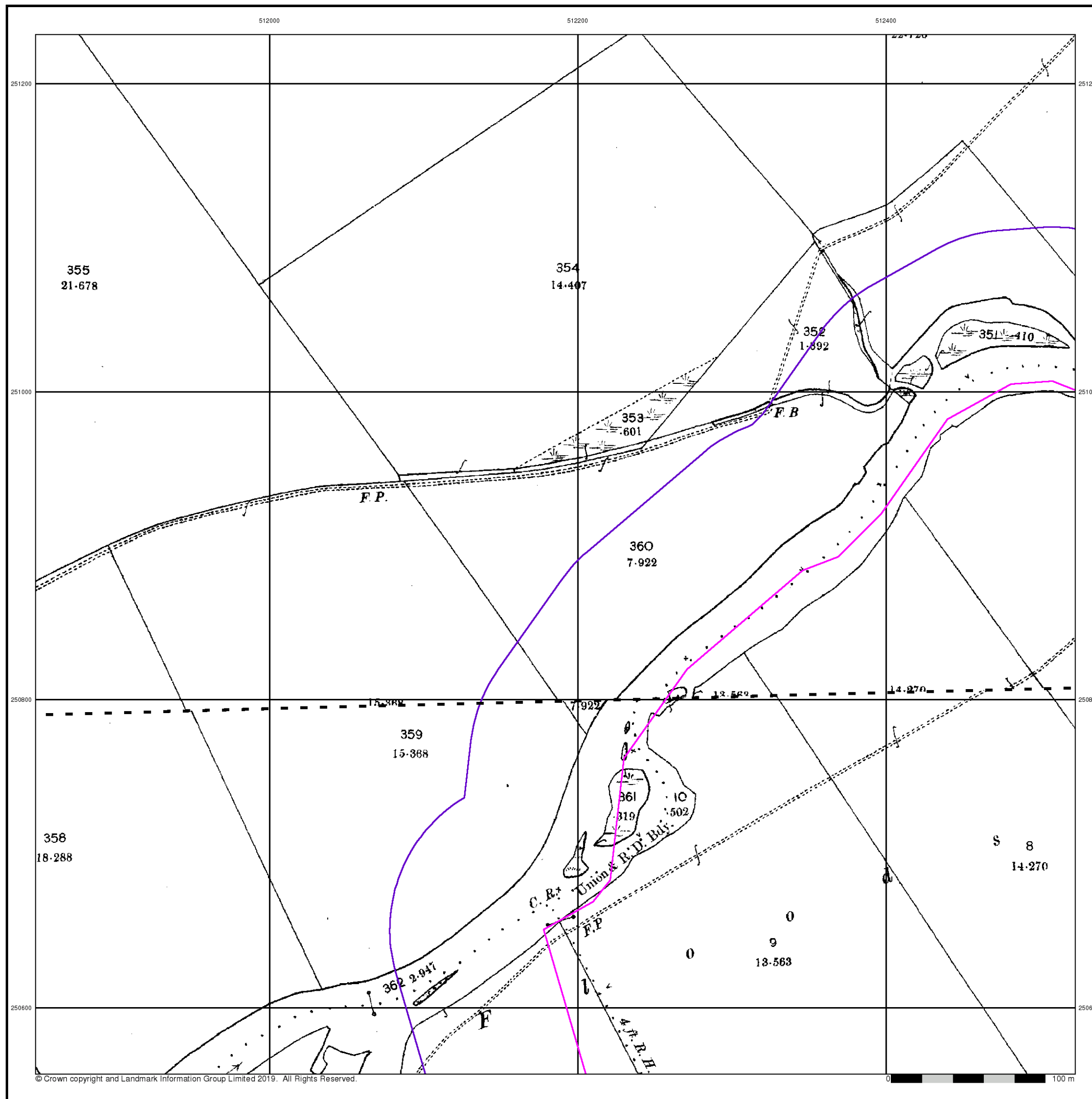


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Search Buffer (m): 100

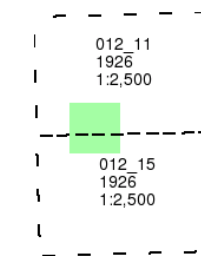
Site Details

Willington Lock

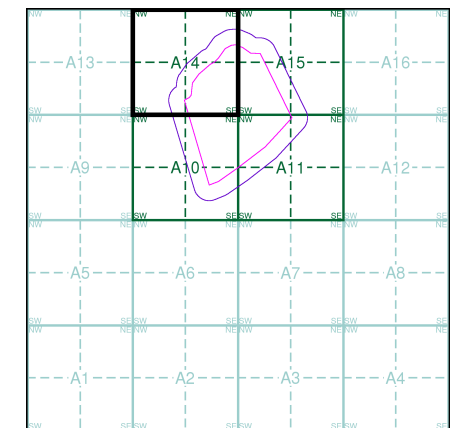


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A14

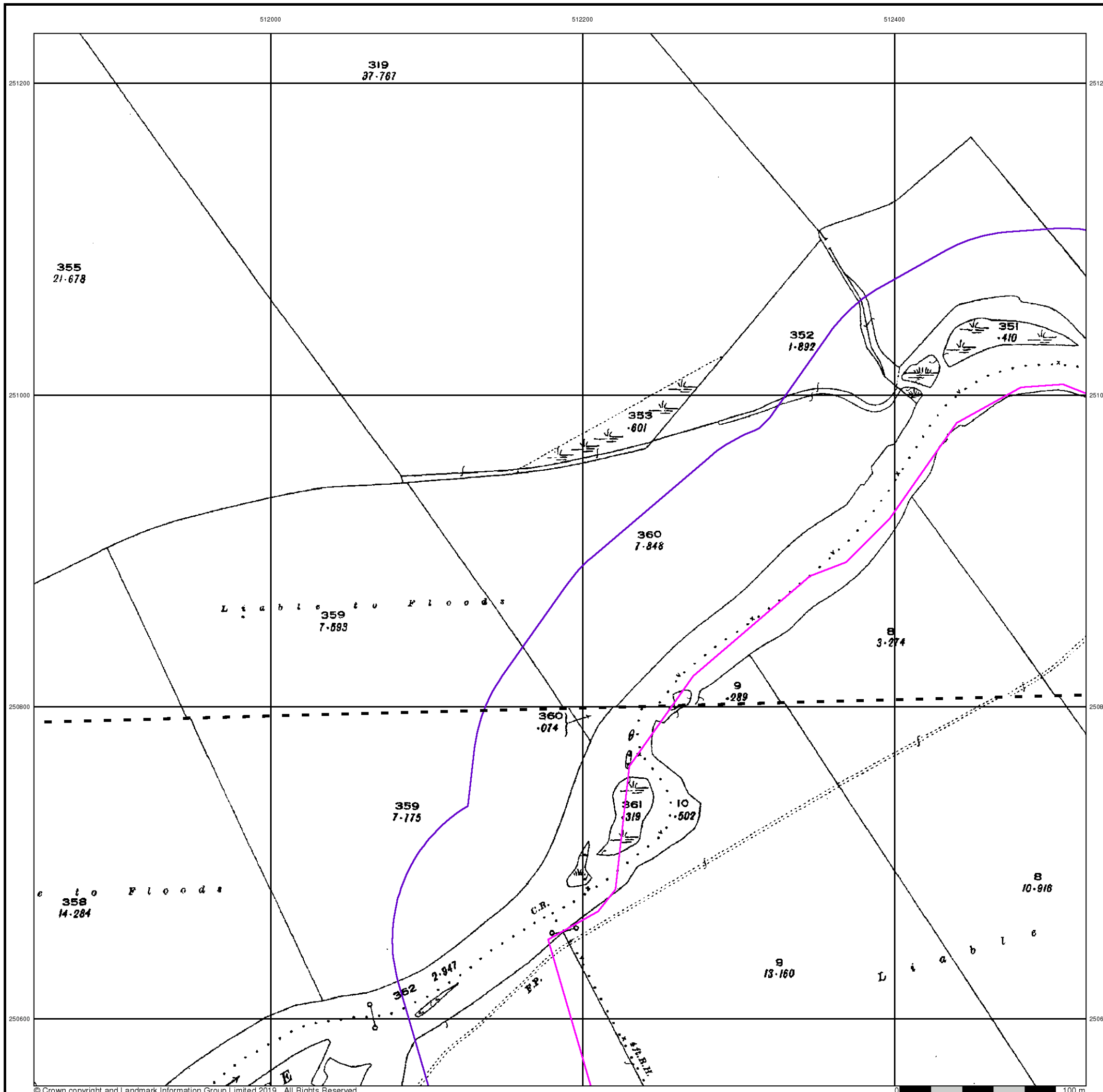


Order Details

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 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



Ordnance Survey Plan

Published 1973

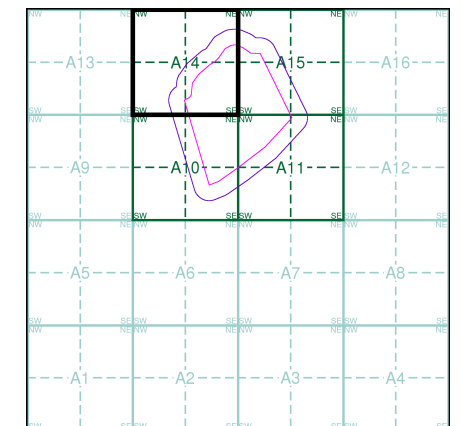
Source map scale - 1:2,500

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)

TL1151 1973 12,500	TL1251 1973 12,500
TL1150 1973 12,500	TL1250 1973 12,500

Historical Map - Segment A14

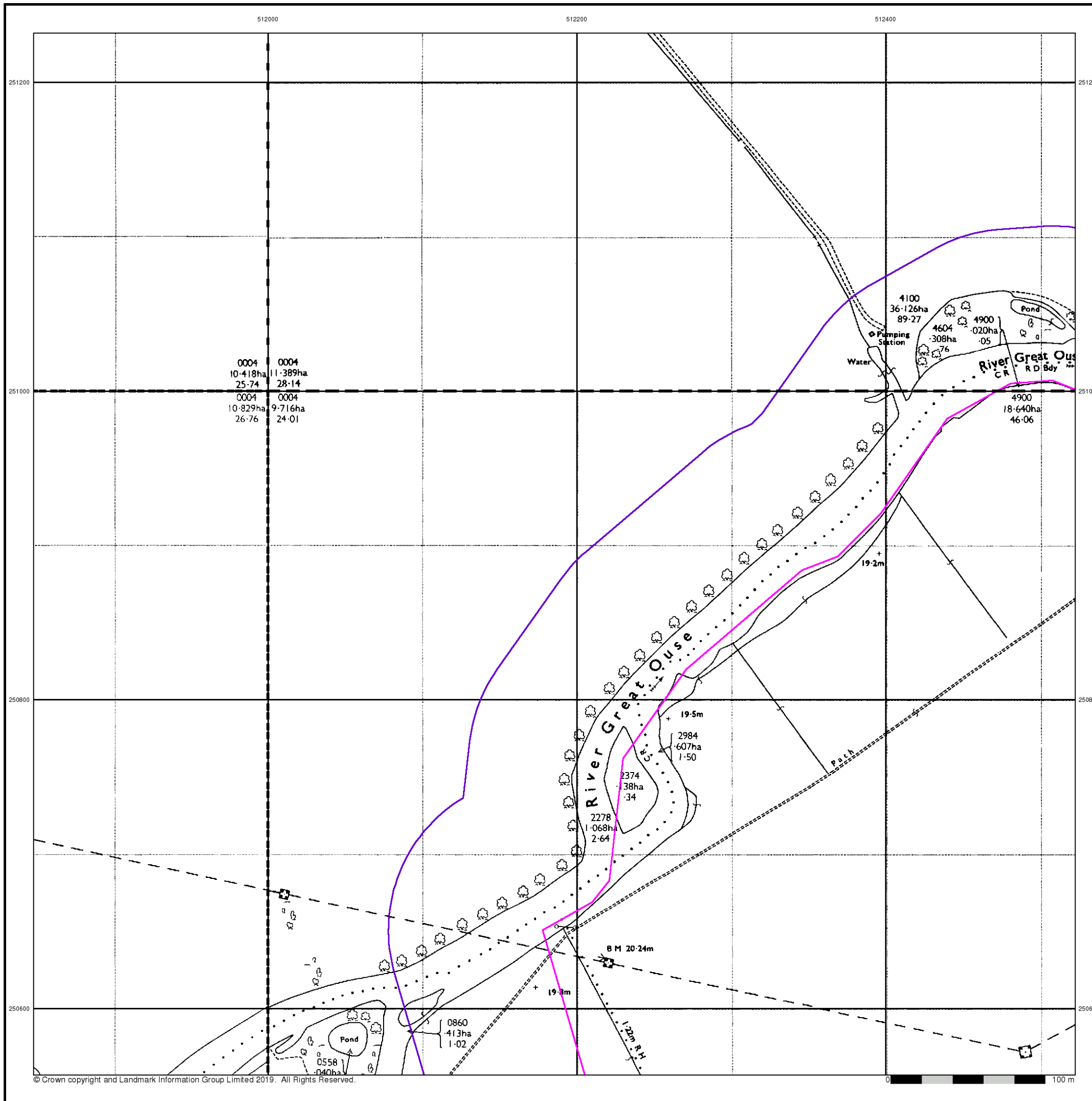


Order Details

Order Number: 222376098_1_1
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 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



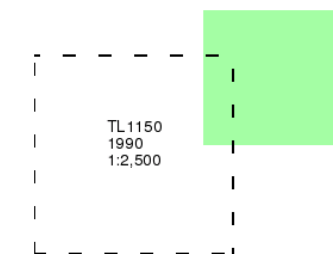
Additional SIMs

Published 1990

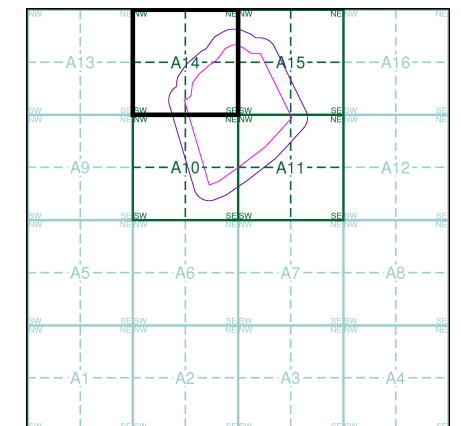
Source map scale - 1:2,500

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 A14

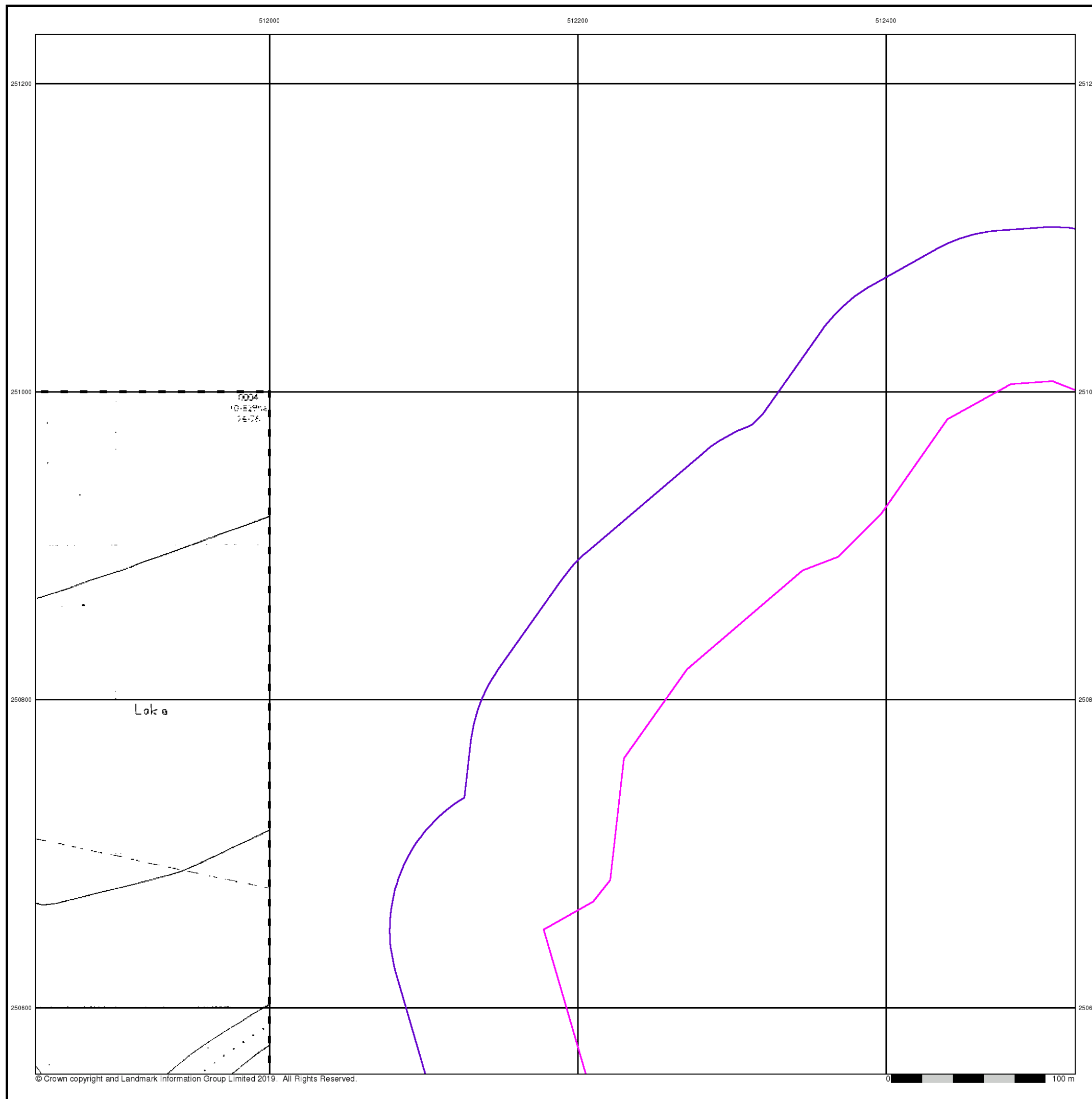


Order Details

Order Number: 222376098_1_1
Customer Ref: BRE/WL/SE/1759/01
National Grid Reference: 512490, 250300
Slice: A
Site Area (Ha): 37.42
Search Buffer (m): 100

Site Details

Willington Lock



Large-Scale National Grid Data

Published 1994

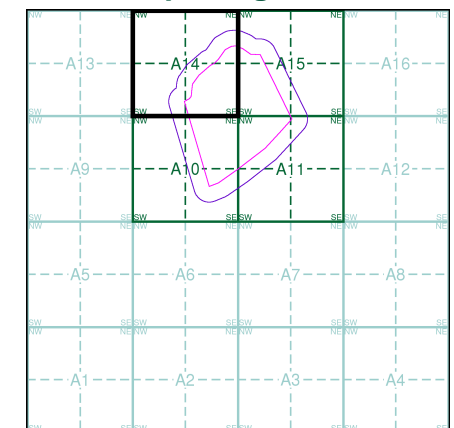
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

TL1151 1994 12,500	TL1251 1994 12,500
TL1150 1994 12,500	TL1250 1994 12,500

Historical Map - Segment A14

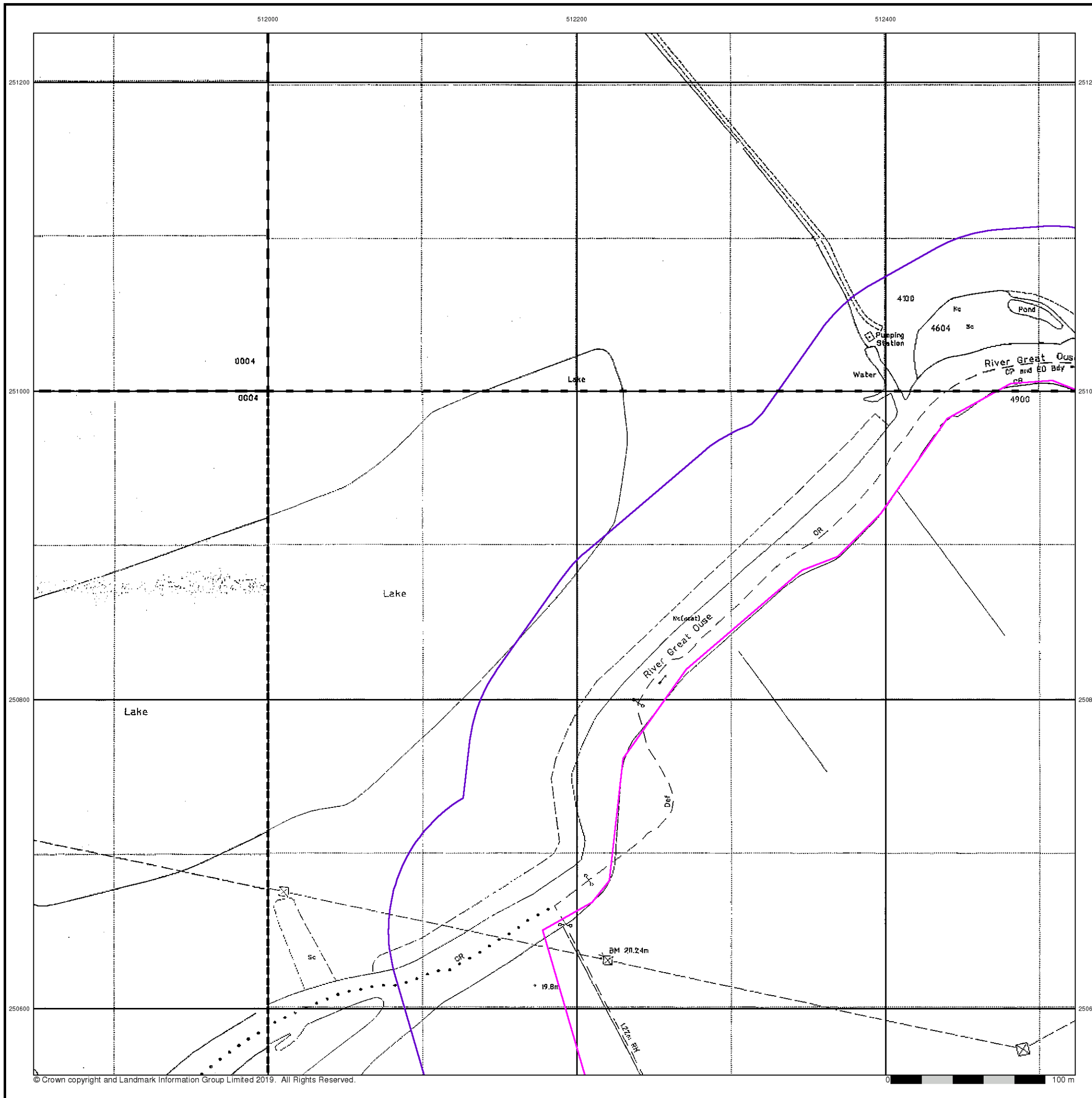


Order Details

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 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock



Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
Co. Boro. Bdy.
County Burgh Boundary (Scotland)
Co. Burgh Bdy.
BP BS 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 **SL** 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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
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
EI 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

Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m **Bench Mark** **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
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
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI 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 Governor **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

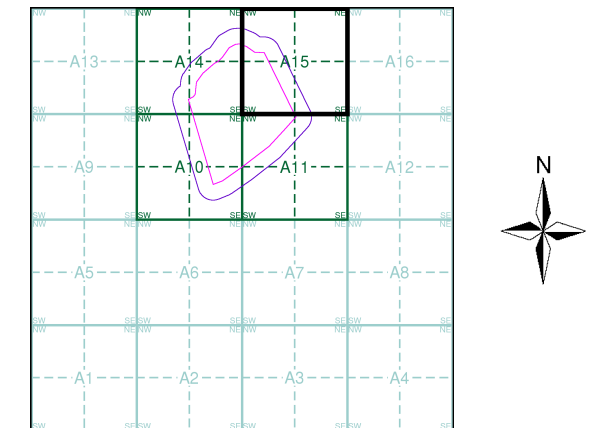
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Bedfordshire	1:2,500	1884	2
Bedfordshire	1:2,500	1901	3
Bedfordshire	1:2,500	1926	4
Ordnance Survey Plan	1:2,500	1973	5
Large-Scale National Grid Data	1:2,500	1994	6

Historical Map - Segment A15



Order Details

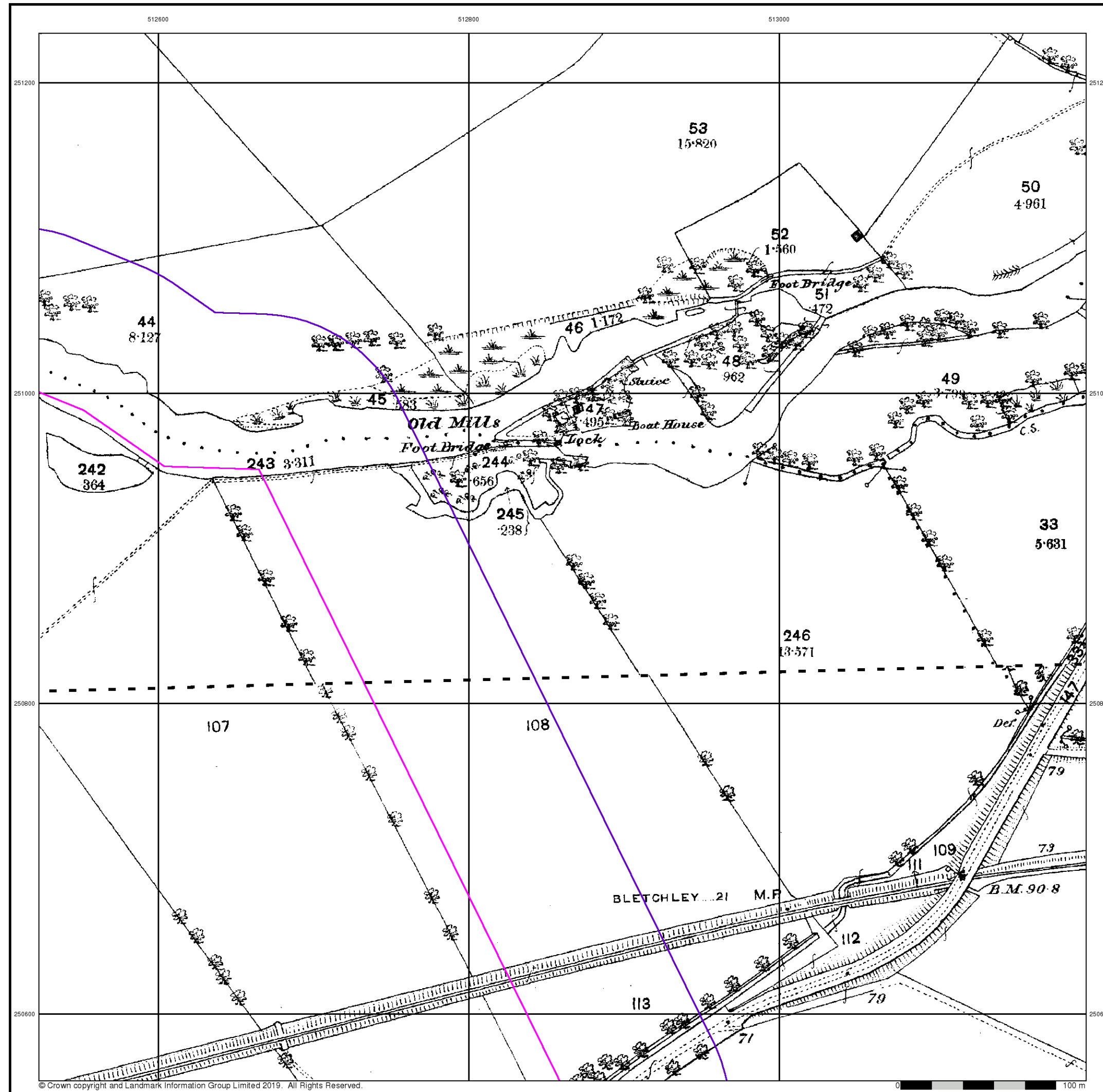
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 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock

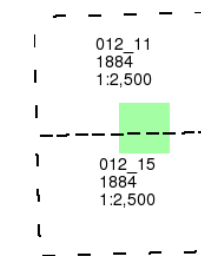
Landmark
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 Web: www.envirocheck.co.uk

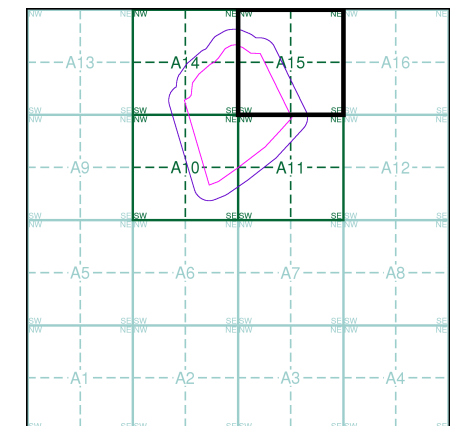


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A15



Order Details

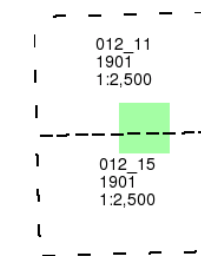
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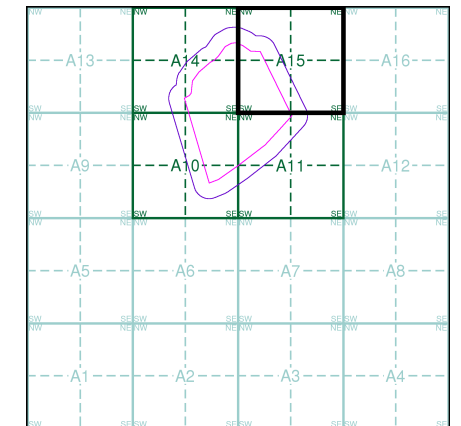
Willington Lock

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Map Name(s) and Date(s)



Historical Map - Segment A15

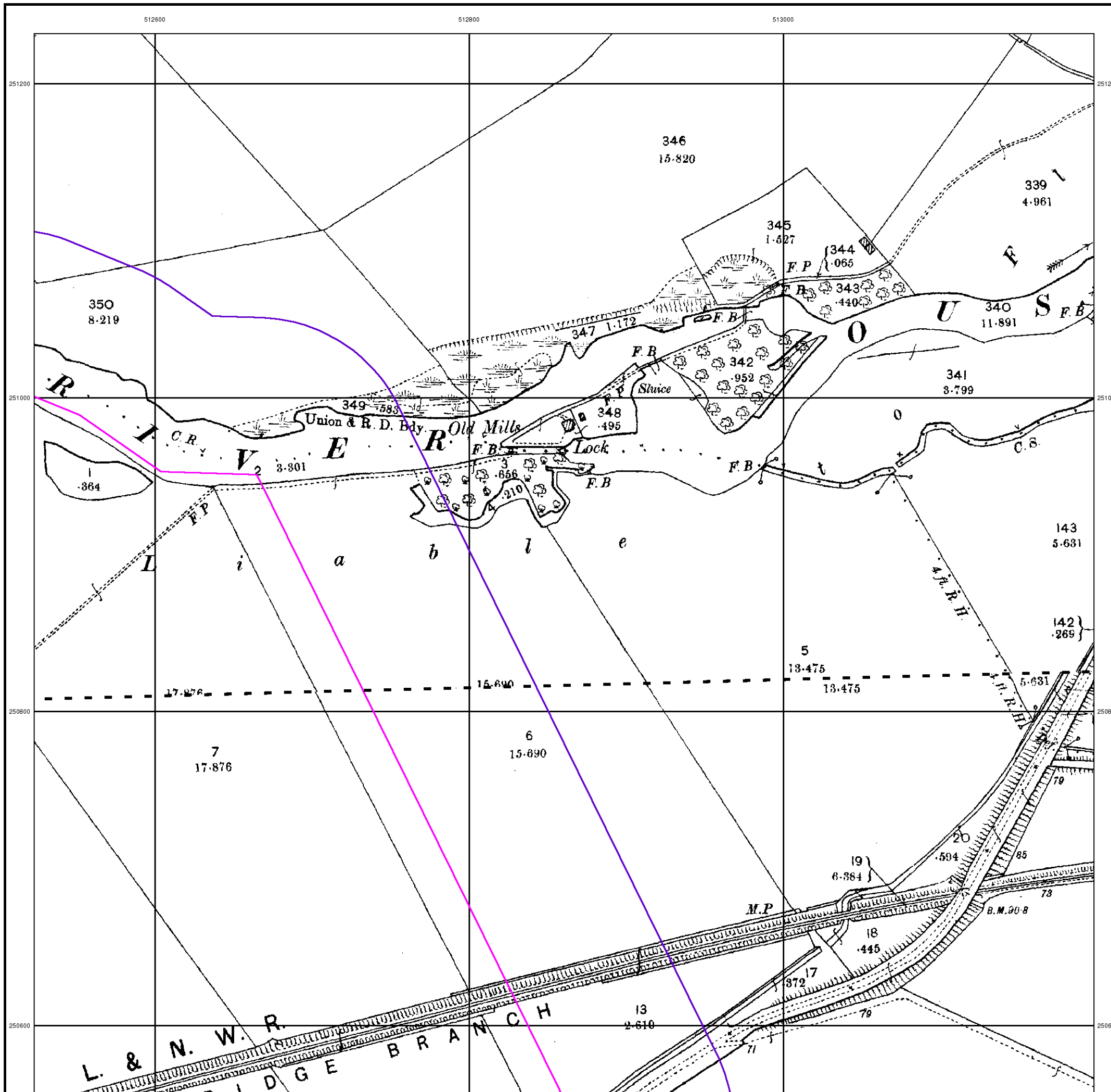


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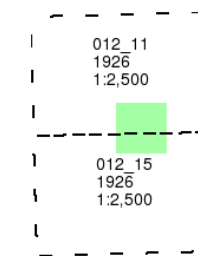
Site Details

Willington Lock

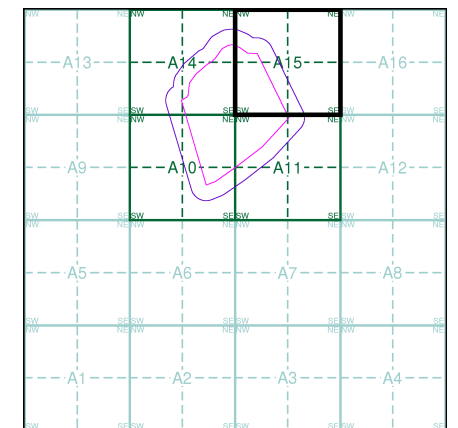


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Map Name(s) and Date(s)



Historical Map - Segment A15

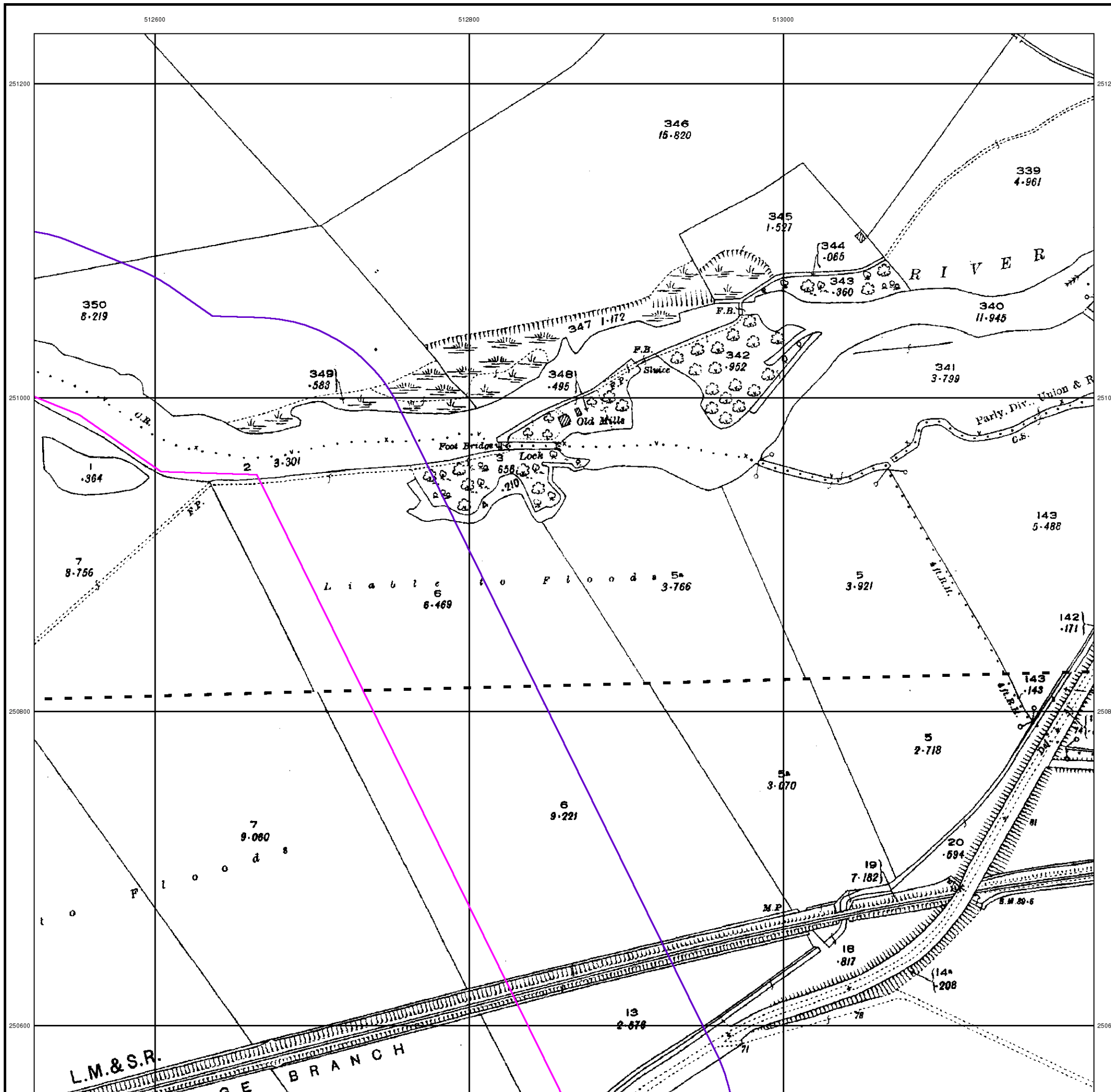


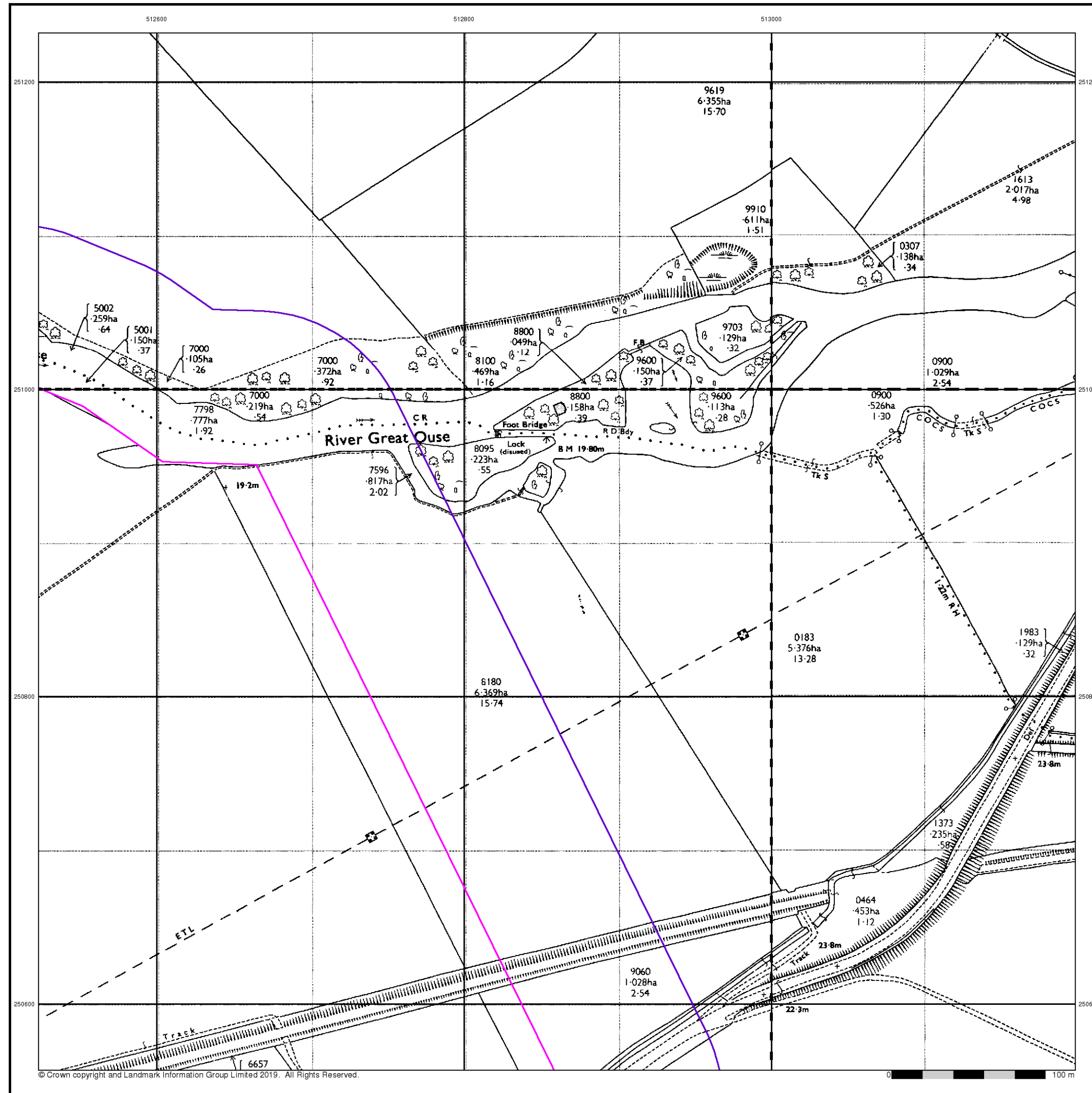
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 Slice: A
 Site Area (Ha): 37.42
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Site Details

Willington Lock





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Ordnance Survey Plan

Published 1973

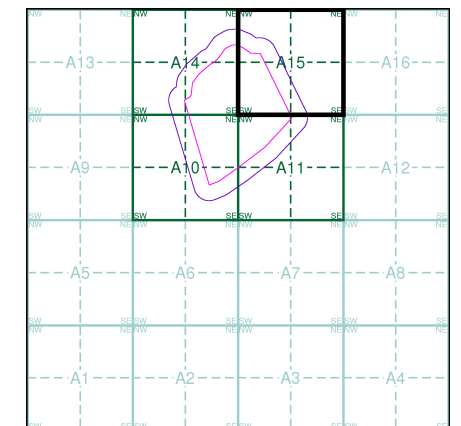
Source map scale - 1:2,500

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)

TL1251 1973 12,500	TL1351 1973 12,500
TL1250 1973 12,500	TL1350 1973 12,500

Historical Map - Segment A15



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock

Large-Scale National Grid Data

Published 1994

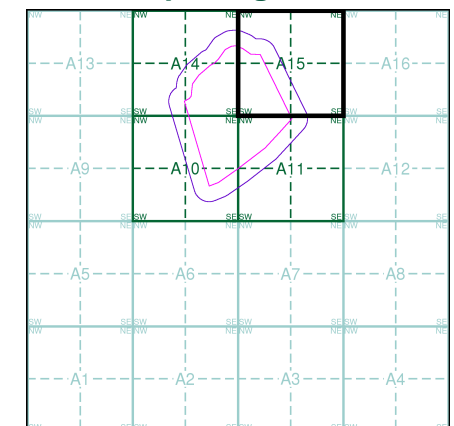
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

TL 1251 1994 12,500	TL 1351 1994 12,500
TL 1250 1994 12,500	TL 1350 1994 12,500

Historical Map - Segment A15

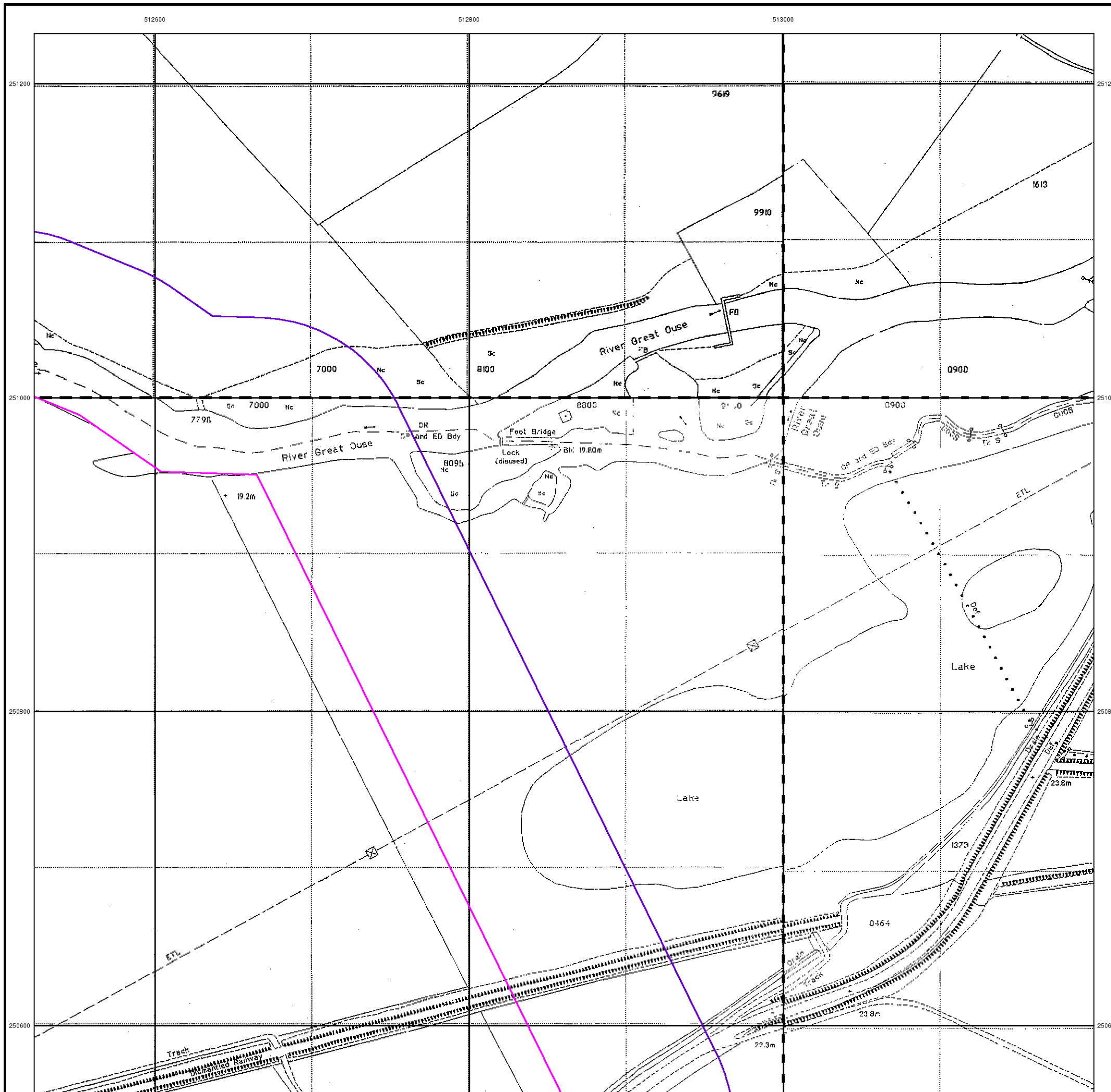


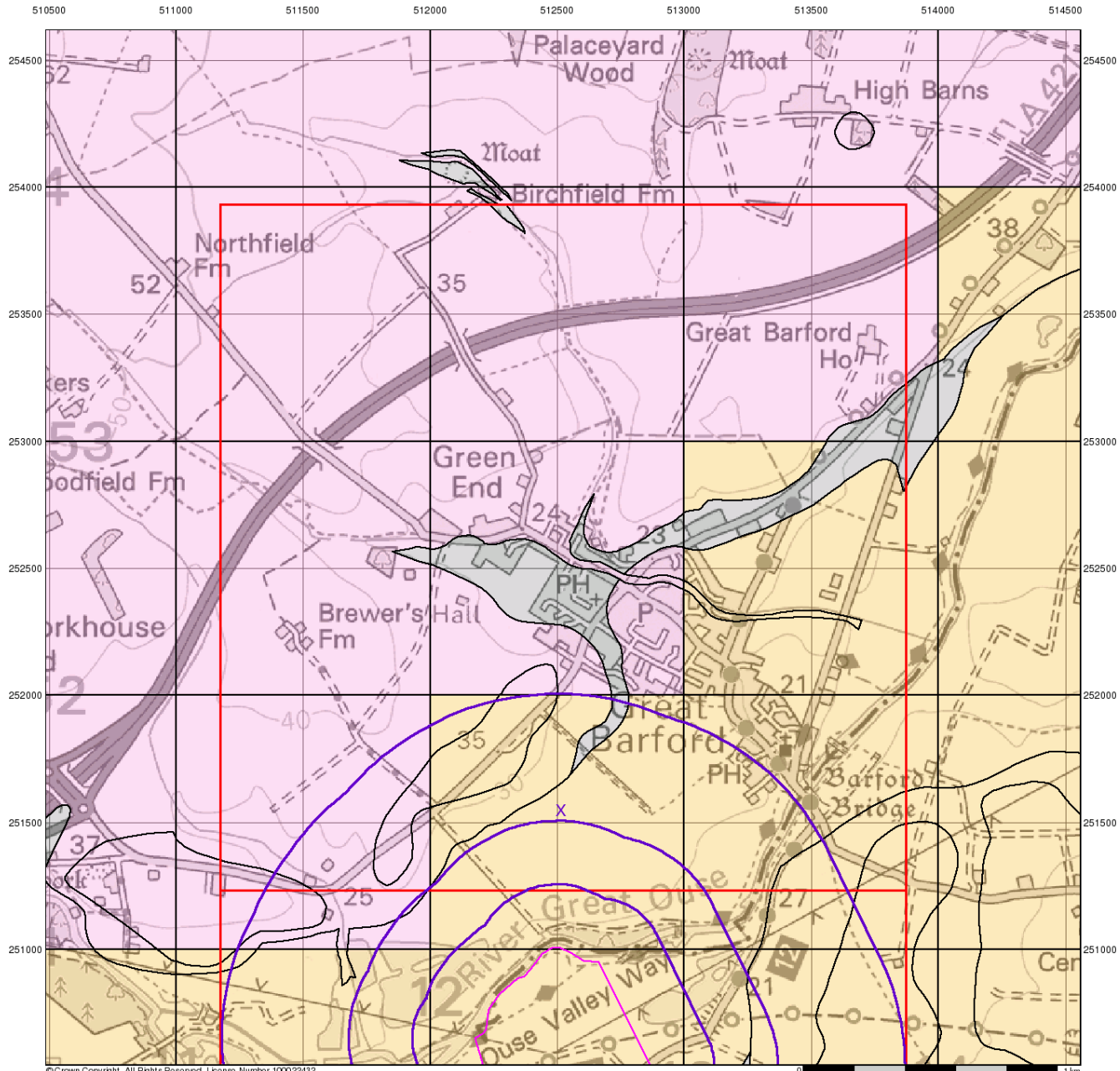
Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512490, 250300
 Slice: A
 Site Area (Ha): 37.42
 Search Buffer (m): 100

Site Details

Willington Lock





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Groundwater Vulnerability

General

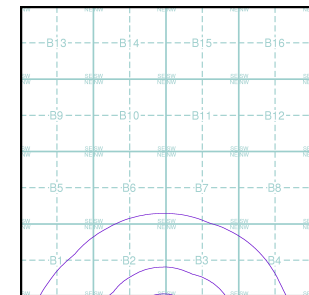
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- | Bedrock Aquifers | Superficial Aquifers |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |

- Unproductive Aquifer
- Soluble Rock

Site Sensitivity Context Map - Slice B



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

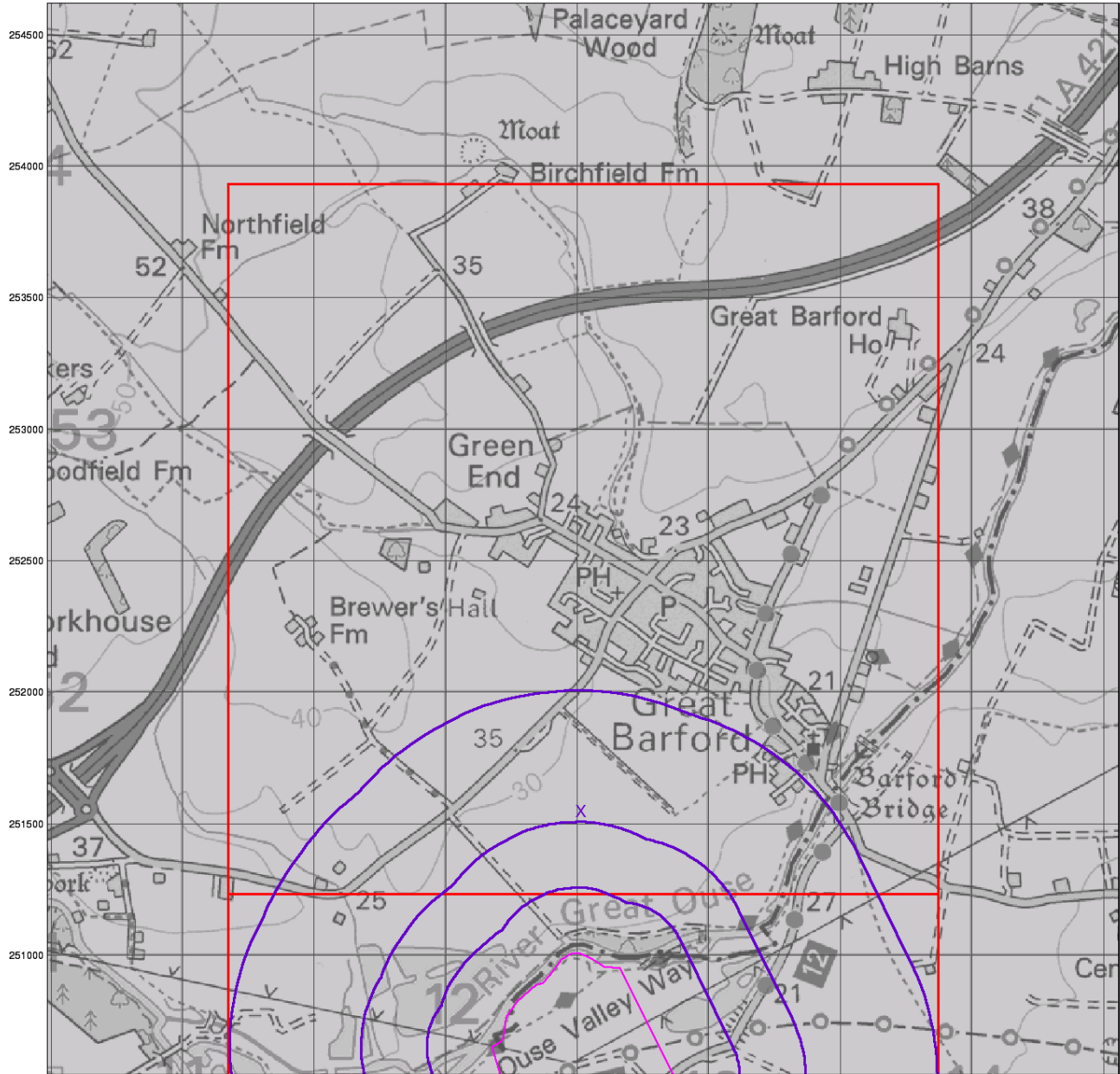
Site Details

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Bedrock Aquifer Designation

General

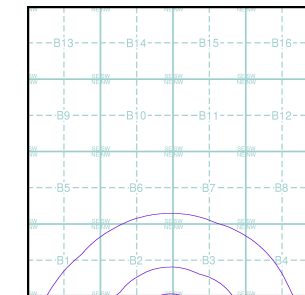
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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 B



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

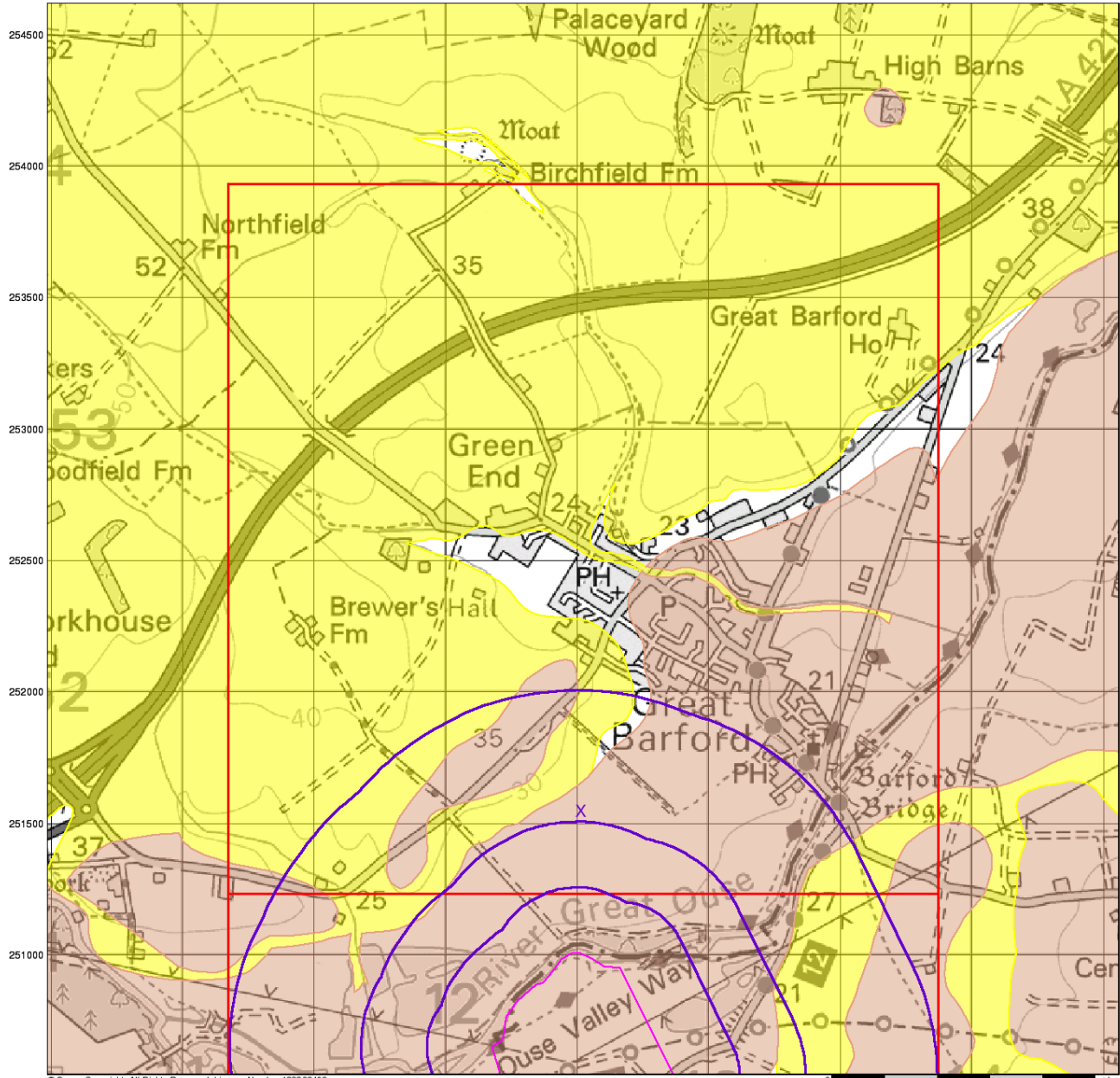
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Superficial Aquifer Designation

General

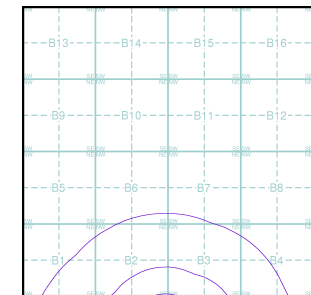
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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 B



Order Details

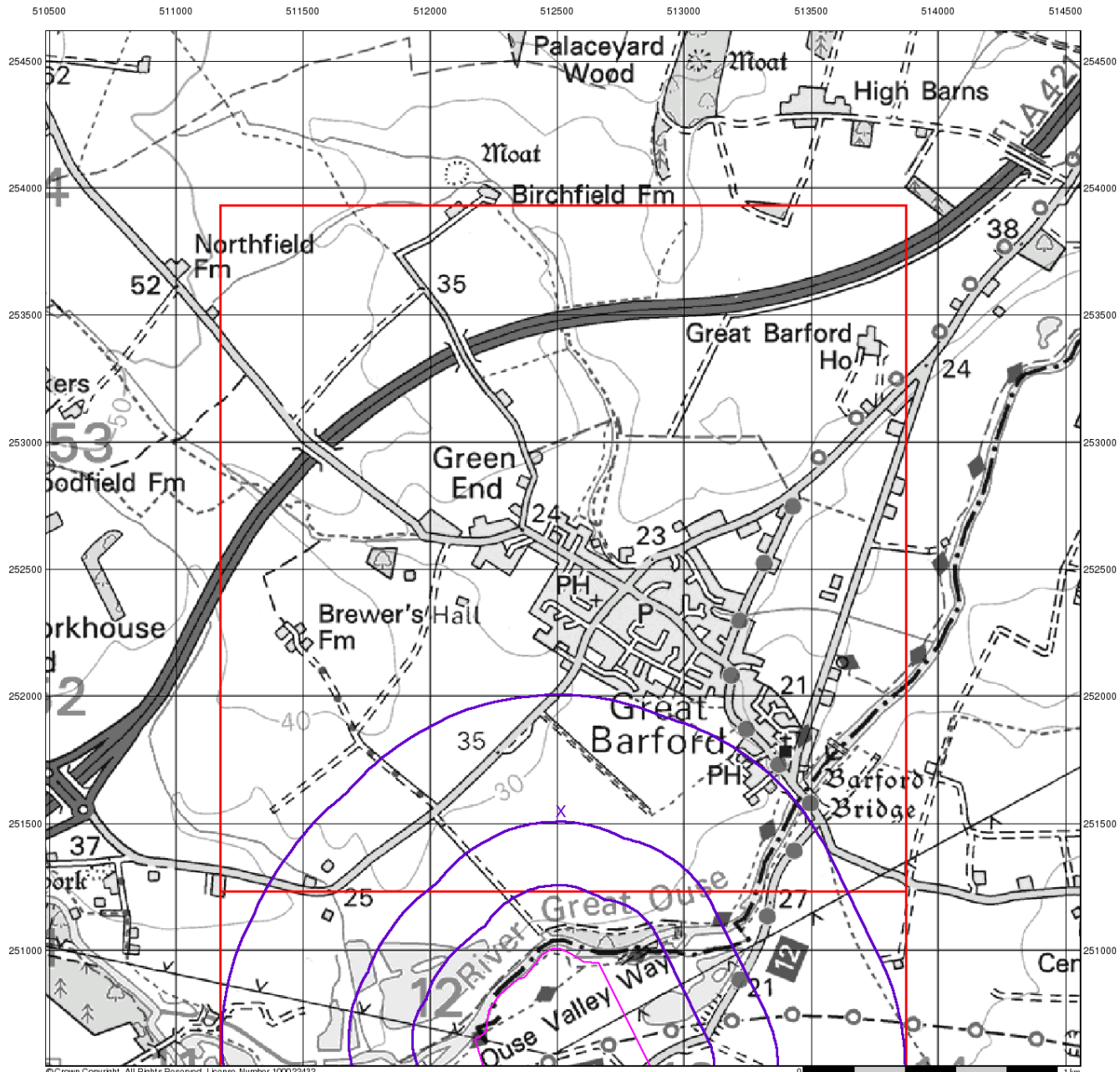
Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

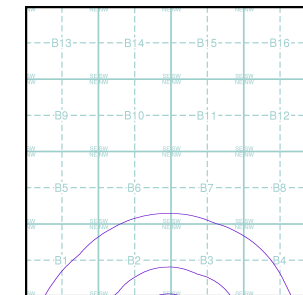
General

-  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 B



Order Details

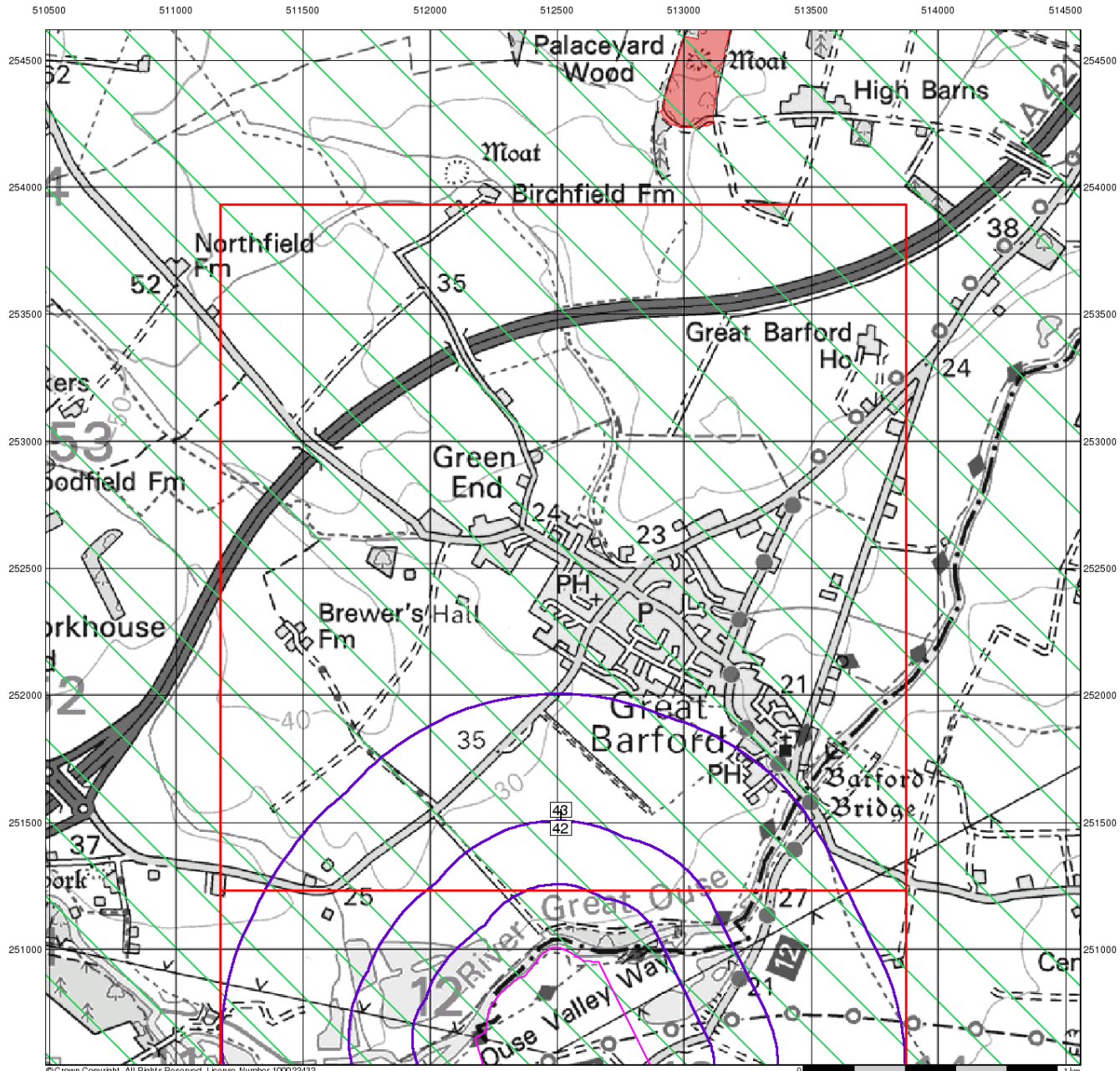
Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

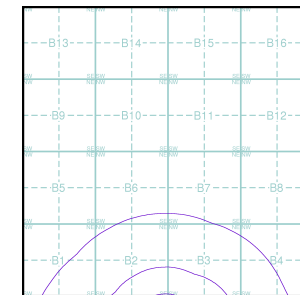
General

- 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 B



Order Details

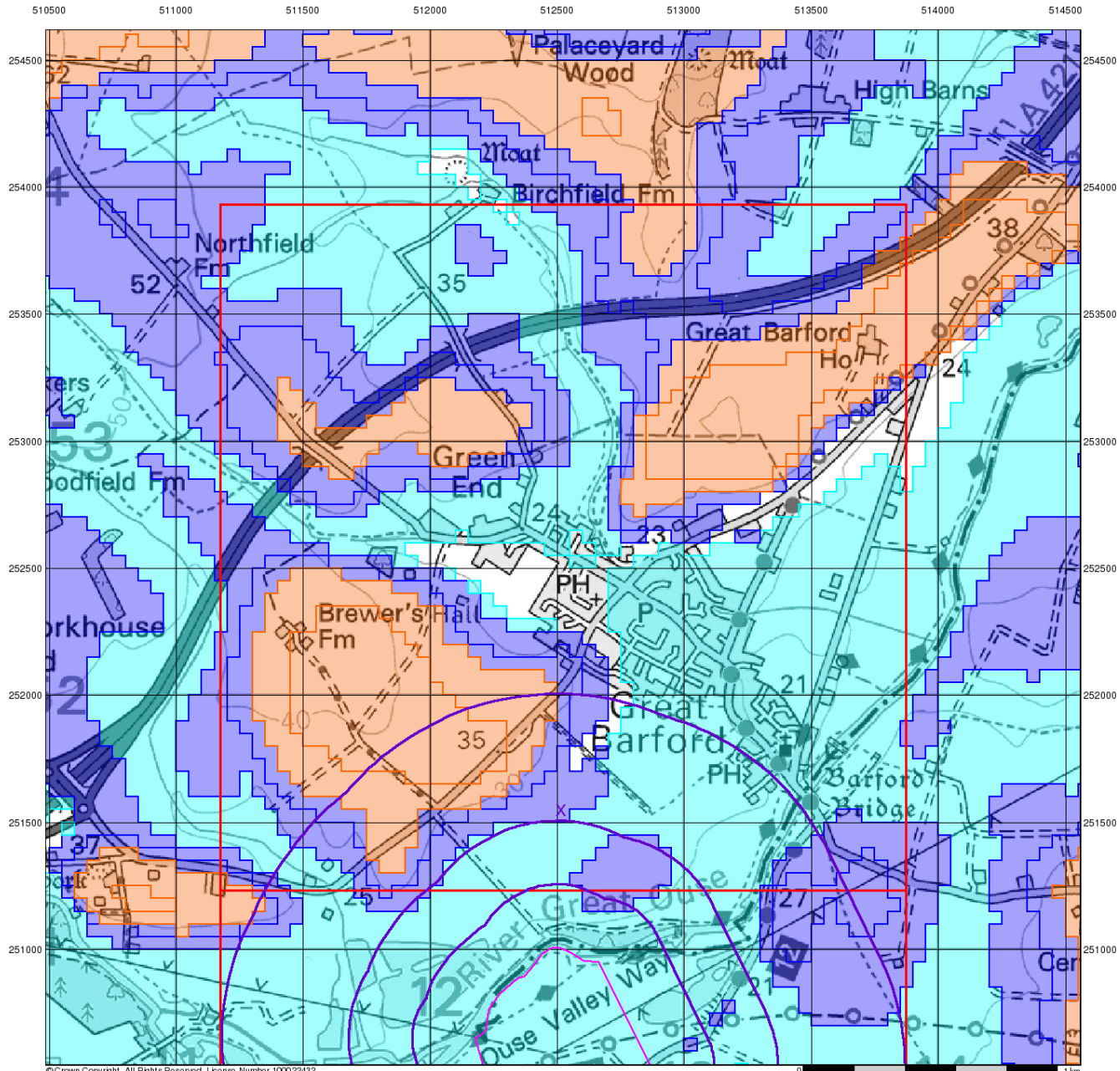
Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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BGS Flood GFS Data

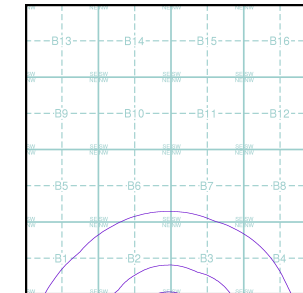
General

- 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 B



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

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Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

222376098_1_1

Customer Reference:

BRE/WL/SE/1759/01

National Grid Reference:

512520, 251550

Slice:

B

Site Area (Ha):

37.42

Search Buffer (m):

1000

Site Details:

Willington Lock

Client Details:

J Amphlett

MJCA

Baddesley Collier Offices

Main Road

Baxterley

Atherstone

Warwickshire

CV9 2LE

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	14
Hazardous Substances	-
Geological	15
Industrial Land Use	16
Sensitive Land Use	17
Data Currency	18
Data Suppliers	22
Useful Contacts	23

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 this 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

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				1
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 1		Yes		
Pollution Incidents to Controlled Waters	pg 1				1
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 1		1		
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 2			1	10 (*18)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 9	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 9	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 9	Yes		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		1	2	28

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					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 14	3	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 15	Yes	n/a	n/a	n/a
BGS Recorded Mineral Sites					
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				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 15	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 15	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 15	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 15	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 15	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

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					
Gas Pipelines	pg 16			1	
Underground Electrical Cables					
Sensitive Land Use					
Ancient Woodland					
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 17	2			
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
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	B3SW (E)	0	1	512550 251549
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	147	1	513000 250650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B3SW (SE)	168	1	512650 251400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	280	1	513100 250750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	347	1	513150 250800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B2SE (SE)	461	1	512517 251549
1	Discharge Consents Operator: Oakfield Management (Gt B) Ltd Property Type: Domestic Property (Multiple) Location: Oakfields, High Street, Great Barford, Bedfordshire, Mk44 3lg Authority: Environment Agency, Anglian Region Catchment Area: Not Supplied Reference: Eprhb3690dk Permit Version: 1 Effective Date: 15th January 2018 Issued Date: 15th January 2018 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Great Ouse Status: New issued under EPR 2010 Positional Accuracy: Located by supplier to within 10m	B4SW (E)	902	2	513324 251566
	Nearest Surface Water Feature	B2SE (SW)	229	-	512214 251270
2	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bedford District Authority: Environment Agency, Anglian Region Pollutant: Unknown Note: River Ouse Incident Date: 17th May 1992 Incident Reference: 1516 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	B4SW (E)	1000	2	513500 251500
	River Quality Name: Ouse GQA Grade: River Quality B Reach: Willington Confl. lvel Estimated Distance (km): 5.9 Flow Rate: Flow less than 20 cumecs Flow Type: River Year: 2000	(S)	34	2	512492 251062

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p>Water Abstractions</p> <p>Operator: Messrs H Reid And Sons Licence Number: 6/33/12/*s/063 Permit Version: Not Supplied Location: Brook, MOGERHANGER Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 1 Yearly Rate (m3): 113630 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	B3SW (SE)	469	2	512800 251400
4	<p>Water Abstractions</p> <p>Operator: L V Davison & Son Licence Number: 6/33/12/*S/0019 Permit Version: 100 Location: River Great Ouse U/S Barford Bridge Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st October 1975 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	B2NE (NW)	719	2	512300 251700
5	<p>Water Abstractions</p> <p>Operator: R P Gates And Sons Licence Number: 6/33/12/*s/022 Permit Version: Not Supplied Location: R Greouse, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 20 Yearly Rate (m3): 777000 Details: Status: Time Limit Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B4SW (E)	817	2	513350 251395
5	<p>Water Abstractions</p> <p>Operator: R P Gates And Sons Licence Number: 6/33/12/*s/022 Permit Version: Not Supplied Location: R Greouse, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Frost Protection Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 11 Yearly Rate (m3): 777270 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	B4SW (E)	820	2	513350 251400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	<p>Water Abstractions</p> <p>Operator: R P Gates And Sons Licence Number: 6/33/12/*s/022 Permit Version: Not Supplied Location: R Greouse, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Unspecified Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 11 Yearly Rate (m3): 777270 Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	B4SW (E)	821	2	513355 251395
5	<p>Water Abstractions</p> <p>Operator: R P Gates And Sons Licence Number: 6/33/12/*s/022 Permit Version: Not Supplied Location: R Greouse, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Frost Protection Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 11 Yearly Rate (m3): 777270 Details: Status: Time Limit Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B4SW (E)	824	2	513355 251400
5	<p>Water Abstractions</p> <p>Operator: A. Smith And Sons Licence Number: 6/33/12/*s/065 Permit Version: Not Supplied Location: River At, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 227270 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B4SW (E)	862	2	513400 251400
6	<p>Water Abstractions</p> <p>Operator: Messrs H Reid And Sons Licence Number: 6/33/12/*s/063 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 1 Yearly Rate (m3): 113630 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	B3NE (E)	867	2	513100 251700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p>Water Abstractions</p> <p>Operator: F Southall Esq Licence Number: 6/33/12/*s/060 Permit Version: Not Supplied Location: River Ouse And Gadsey Brook, GREAT BARFORD Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 16 Yearly Rate (m3): 200000 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B4NW (E)	981	2	513400 251600
8	<p>Water Abstractions</p> <p>Operator: R Eyre Licence Number: 6/33/12/*S/0015 Permit Version: 100 Location: R Great Ouse And Gadsey Brook Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st October 1979 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B1SW (W)	989	2	511400 251300
9	<p>Water Abstractions</p> <p>Operator: L V Davison And Son Licence Number: 6/33/12/*s/019 Permit Version: Not Supplied Location: R Ouse Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 5 Yearly Rate (m3): 681810 Details: Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	B7SW (N)	993	2	512600 251995
	<p>Water Abstractions</p> <p>Operator: Messrs Wilsher Bros Licence Number: 6/33/12/*s/002 Permit Version: Not Supplied Location: Watercourse At, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 1 Yearly Rate (m3): 68180 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B4NW (E)	1061	2	513300 251800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: Messrs Wilsher Bros Licence Number: 6/33/12/*s/002 Permit Version: Not Supplied Location: Watercourse At, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 1 Yearly Rate (m3): 68180 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B4NW (E)	1092	2	513350 251800
	<p>Water Abstractions</p> <p>Operator: R Eyre Esq Licence Number: 6/33/12/*s/015 Permit Version: Not Supplied Location: R Great Ouse And Gadsey Brook Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 7 Yearly Rate (m3): 204540 Details: Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B1SW (W)	1137	2	511400 251550
	<p>Water Abstractions</p> <p>Operator: Burlington Farms Limited Licence Number: 6/33/12/*s/099 Permit Version: Not Supplied Location: River Ouse, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 2 Yearly Rate (m3): 195180 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B8SE (E)	1617	2	513850 252050
	<p>Water Abstractions</p> <p>Operator: F Reed Licence Number: 6/33/12/*S/0032 Permit Version: 100 Location: R Ouse At Blunham Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st September 1972 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1626	2	513880 252030

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: C J Partridge Esq Licence Number: 6/33/12/*s/054 Permit Version: Not Supplied Location: River Ouse At, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 4 Yearly Rate (m3): 531810 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1628	2	513900 252010
	<p>Water Abstractions</p> <p>Operator: Burlington Farms Ltd Licence Number: 6/33/12/*S/0100 Permit Version: 100 Location: River Ouse Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Perpetuity Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st March 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1654	2	513900 252050
	<p>Water Abstractions</p> <p>Operator: Burlington Farms Limited Licence Number: 6/33/12/*s/099 Permit Version: Not Supplied Location: River Ouse, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 2 Yearly Rate (m3): 195180 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(E)	1688	2	513900 252100
	<p>Water Abstractions</p> <p>Operator: J Hinckley & Sons Licence Number: 6/33/12/*G/0058 Permit Version: 100 Location: Well At Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st May 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B8NW (NE)	1756	2	513500 252495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0152 Permit Version: 1 Location: River Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 30 September Permit Start Date: 30th October 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(NE)	1757	2	513900 252200
	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0141 Permit Version: 100 Location: River Ouse At Great Barford Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Temporary Authorised Start: 01 May Authorised End: 30 September Permit Start Date: 1st June 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	(NE)	1757	2	513900 252200
	<p>Water Abstractions</p> <p>Operator: Messrs J Hinckley And Sons Licence Number: 6/33/12/*g/058 Permit Version: Not Supplied Location: Well , BARFORD Authority: Environment Agency, Anglian Region Abstraction: Unspecified Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 1 Yearly Rate (m3): 15900 Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B8NW (NE)	1758	2	513505 252495
	<p>Water Abstractions</p> <p>Operator: J Hinckley & Sons Licence Number: 6/33/12/*G/0058 Permit Version: 100 Location: Well At Barford Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Fluvial Sand and Gravel; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st May 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	B8NW (NE)	1760	2	513500 252500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: R P Gates & Sons Licence Number: 6/33/12/*S/0152/R01 Permit Version: 1 Location: River Great Ouse At Barford, Bedfordshire Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 30 September Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(NE)	1808	2	513981 252190
	<p>Water Abstractions</p> <p>Operator: Burlington Farms Ltd Licence Number: 6/33/12/*S/0123 Permit Version: 100 Location: River Great Ouse - Blunham Authority: Environment Agency, Anglian Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Status: Time Limit Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(NE)	1829	2	514000 252200
	<p>Water Abstractions</p> <p>Operator: Burlington Farms Ltd Licence Number: 6/33/12/*s/047 Permit Version: Not Supplied Location: River Ouse At, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 14 Yearly Rate (m3): 463630 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(NE)	1862	2	514050 252195
	<p>Water Abstractions</p> <p>Operator: Burlington Farms Limited Licence Number: 6/33/12/*s/100 Permit Version: Not Supplied Location: River Ouse Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 3 Yearly Rate (m3): 336640 Details: Status: Perpetuity Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	(NE)	1866	2	514050 252200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Burlington Farms Limited Licence Number: 6/33/12*/s/102 Permit Version: Not Supplied Location: River Ouse At, BLUNHAM Authority: Environment Agency, Anglian Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Stream Daily Rate (m3): 43 Yearly Rate (m3): 1390910 Details: Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NE)	1866	2	514055 252195
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Unproductive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: >70% Superficial: >90% Patchiness: Superficial Superficial Thickness: 3-10m Superficial Recharge: High	B2SE (SE)	0	3	512517 251549
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Unproductive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: >70% Superficial: >90% Patchiness: Superficial Superficial Thickness: <3m Superficial Recharge: High	(S)	0	3	512517 251000
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	B2SE (SE)	0	3	512517 251549
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	B2SE (SE)	0	3	512517 251549
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	(S)	0	2	512562 251100
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	(SE)	183	2	512741 251155
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	(S)	0	2	512460 251100
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flood Defences None				
10	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 298.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SE (SW)	71	4	512214 251270
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SE (SW)	366	4	512210 251275
12	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 293.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SE (SW)	373	4	512203 251284
13	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 315.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3SE (E)	524	4	513007 251361
14	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 194.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3SW (E)	530	4	512838 251491
15	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3SE (E)	532	4	512990 251371
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3SW (E)	568	4	512833 251495
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3SW (E)	570	4	512832 251496
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3SE (E)	601	4	512864 251517

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 568.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3NW (NE)	606	4	512653 251709
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 400.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3SE (E)	606	4	512869 251521
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 384.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	649	4	513318 251312
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SW (W)	694	4	512024 251538
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 279.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SW (W)	694	4	512013 251529
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SW (W)	695	4	512025 251539
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SW (W)	718	4	512006 251554
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 152.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B1SE (W)	724	4	511786 251357
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B1SE (W)	724	4	511790 251361

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 203.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B2SW (W)	724	4	512001 251558
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 82.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B1SE (W)	745	4	511670 251259
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 676.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	(W)	791	4	511586 251221
31	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 15.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	905	4	513331 251564
32	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 2.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	915	4	513346 251561
33	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 1.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	915	4	513346 251561
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 82.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	916	4	513348 251561
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	916	4	513347 251563
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 82.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	918	4	513347 251564

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B1NE (W)	923	4	511844 251687
38	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B3NE (E)	924	4	513089 251771
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 195.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B1NE (W)	927	4	511842 251689
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 241.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Great Ouse Catchment Name: Cam Ely Ouse and South Level Primacy: 1	B4SW (E)	945	4	513418 251521

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Mid Bedfordshire District Council - Has supplied landfill data		0	5	512531 251018
	Local Authority Landfill Coverage Name: Bedford Borough Council - Has supplied landfill data		0	7	512517 251549
	Local Authority Landfill Coverage Name: Bedfordshire County Council - Has no landfill data to supply		0	6	512517 251549

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Kellaways Formation And Oxford Clay Formation (Undifferentiated)	B2SE (SE)	0	1	512517 251549
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(S)	0	1	512432 251117
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(E)	0	1	513341 251225
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B2SE (SE)	97	1	512517 251549
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	(S)	0	1	512432 251117
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(E)	0	1	513341 251225
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B2SE (SE)	97	1	512517 251549
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B2SE (SE)	0	1	512517 251549
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B2SE (SE)	0	1	512517 251549
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(E)	0	1	513341 251225
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	(S)	0	1	512432 251117
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B2SE (SE)	97	1	512517 251549
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	B2SE (SE)	0	1	512517 251549
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(SE)	0	1	512824 251152
	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	B2SE (SE)	0	1	512517 251549
	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	B2SE (SE)	0	1	512517 251549

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	<p>Gas Pipelines</p> <p>Name: FM07 - Tydd St Giles to Old Warden Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 81 Distance (m): Status: Active Pipe Length (m): 89381.6 Pipe Number: Feeder 7</p>	B1SE (W)	383	8	511836 251296

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	Nitrate Vulnerable Zones Name: Huntingdon River Gravels Description: Groundwater Source: Environment Agency, Head Office	B2SE (SE)	0	3	512517 251549
43	Nitrate Vulnerable Zones Name: Great Ouse Nvz Description: Surface Water Source: Environment Agency, Head Office	B2SE (SE)	0	3	512517 251549

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Bedford Borough Council - Environmental Health Department Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2014 July 2008 October 2017	Annual Rolling Update Not Applicable Annually
Discharge Consents Environment Agency - Anglian Region	July 2019	Quarterly
Enforcement and Prohibition Notices Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Integrated Pollution Controls Environment Agency - Anglian Region	October 2008	Variable
Integrated Pollution Prevention And Control Environment Agency - Anglian Region	July 2019	Quarterly
Local Authority Integrated Pollution Prevention And Control Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2008 March 2015 November 2014	Not Applicable Variable Variable
Local Authority Pollution Prevention and Controls Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2008 March 2015 November 2014	Not Applicable Annual Rolling Update Annually
Local Authority Pollution Prevention and Control Enforcements Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Bedford Borough Council - Environmental Health Department Central Bedfordshire Council - Environmental Health Department	December 2008 March 2015 November 2014	Not Applicable Variable Variable
Nearest Surface Water Feature Ordnance Survey	September 2019	
Pollution Incidents to Controlled Waters Environment Agency - Anglian Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Registered Radioactive Substances Environment Agency - Anglian Region	June 2016	
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 - Anglian Region - Central Area	July 2019	Quarterly
Water Abstractions Environment Agency - Anglian Region	July 2019	Quarterly
Water Industry Act Referrals Environment Agency - Anglian Region	October 2017	Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	July 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2019	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2019	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	August 2019	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	August 2019	Quarterly
Flood Defences Environment Agency - Head Office	August 2019	Quarterly
OS Water Network Lines Ordnance Survey	July 2019	Quarterly
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	July 2019	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Central Area	July 2018	Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Central Area	July 2019	Quarterly
Local Authority Landfill Coverage Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department	May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bedford Borough Council - Environmental Health Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department	April 2003 May 2000 May 2000	Not Applicable Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - Anglian Region - Central Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Anglian Region - Central Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Central 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	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council)	February 2016 February 2016 July 2008 May 2008	Variable Variable Annual Rolling Update Not Applicable
Planning Hazardous Substance Consents Bedford Borough Council Central Bedfordshire Council - Planning Department Bedfordshire County Council (now part of Central Bedfordshire Council) Mid Bedfordshire District Council (now part of Central Bedfordshire Council)	February 2016 February 2016 July 2008 May 2008	Variable Variable Annual Rolling Update Not Applicable
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	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	Annual Rolling Update
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	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	July 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	September 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Underground Electrical Cables National Grid	December 2015	
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	August 2018	Bi-Annually
Areas of Adopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department	March 2019 May 2011	As notified As notified
Areas of Unadopted Green Belt Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Central Bedfordshire Council - Planning Department	March 2019 May 2011	As notified As notified
Areas of Outstanding Natural Beauty Natural England	June 2019	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	March 2019	Bi-Annually
Marine Nature Reserves Natural England	July 2019	Bi-Annually
National Nature Reserves Natural England	July 2019	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	April 2019	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2019	Bi-Annually
Special Areas of Conservation Natural England	June 2019	Bi-Annually
Special Protection Areas Natural England	April 2019	Bi-Annually

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	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

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	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Mid Bedfordshire District Council (now part of Central Bedfordshire Council) - Environmental Health Department Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8301 Email: customers@centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
6	Bedfordshire County Council (now part of Central Bedfordshire Council) Priory House, Monks Walk, Chicksands, Shefford, Bedfordshire, SG17 5TQ	Telephone: 0300 300 8301 Email: www.centralbedfordshire.gov.uk Website: www.centralbedfordshire.gov.uk
7	Bedford Borough Council - Environmental Health Department Town Hall, St Pauls Street, Bedford, Bedfordshire, MK40 1SJ	Telephone: 01234 267422 Fax: 01234 325671 Email: enquiries@bedford.gov.uk Website: www.bedford.gov.uk
8	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
9	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

- Gravel Pit
- Sand Pit
- Other Pits
- Quarry
- Shingle
- Orchard
- Osiers
- Reeds
- Marsh
- Mixed Wood
- Deciduous
- Brushwood
- Fir
- Furze
- Rough Pasture
- Arrow denotes flow of water
- Trigonometrical Station
- Site of Antiquities
- Bench Mark
- Pump, Guide Post, Signal Post
- Well, Spring, Boundary Post
- 285** Surface Level
- Sketched Contour
- Instrumental Contour
- Main Roads
- Minor Roads
- 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
- County Borough Boundary (England)
- County Burgh Boundary (Scotland)
- 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
- Glasshouse
- Sloping Masonry
- Pylon
- Electricity Transmission Line
- Pole
- Cutting
- Embankment
- Standard Gauge Multiple Track
- 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
- Ch Church
- CH Club House
- F E Sta Fire Engine Station
- FB Foot Bridge
- Fn Fountain
- GP Guide Post
- MP Mile Post
- MS Mile Stone
- Pol Sta Police Station
- PO Post Office
- PC Public Convenience
- PH Public House
- SB Signal Box
- Spr Spring
- TCB Telephone Call Box
- TCP Telephone Call Post
- W Well

1:10,000 Raster Mapping

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

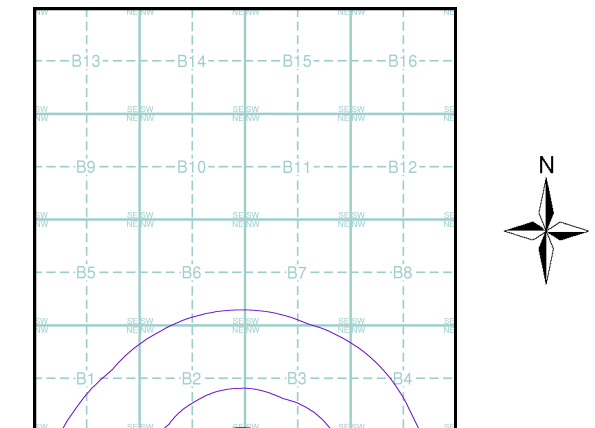
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Bedfordshire	1:10,560	1884 - 1885	2
Bedfordshire	1:10,560	1902	3
Bedfordshire	1:10,560	1927	4
Bedfordshire	1:10,560	1938 - 1948	5
Bedfordshire	1:10,560	1948	6
Ordnance Survey Plan	1:10,000	1960	7
Ordnance Survey Plan	1:10,000	1976	8
10K Raster Mapping	1:10,000	1999	9
Street View	Variable		10

Historical Map - Slice B



Order Details

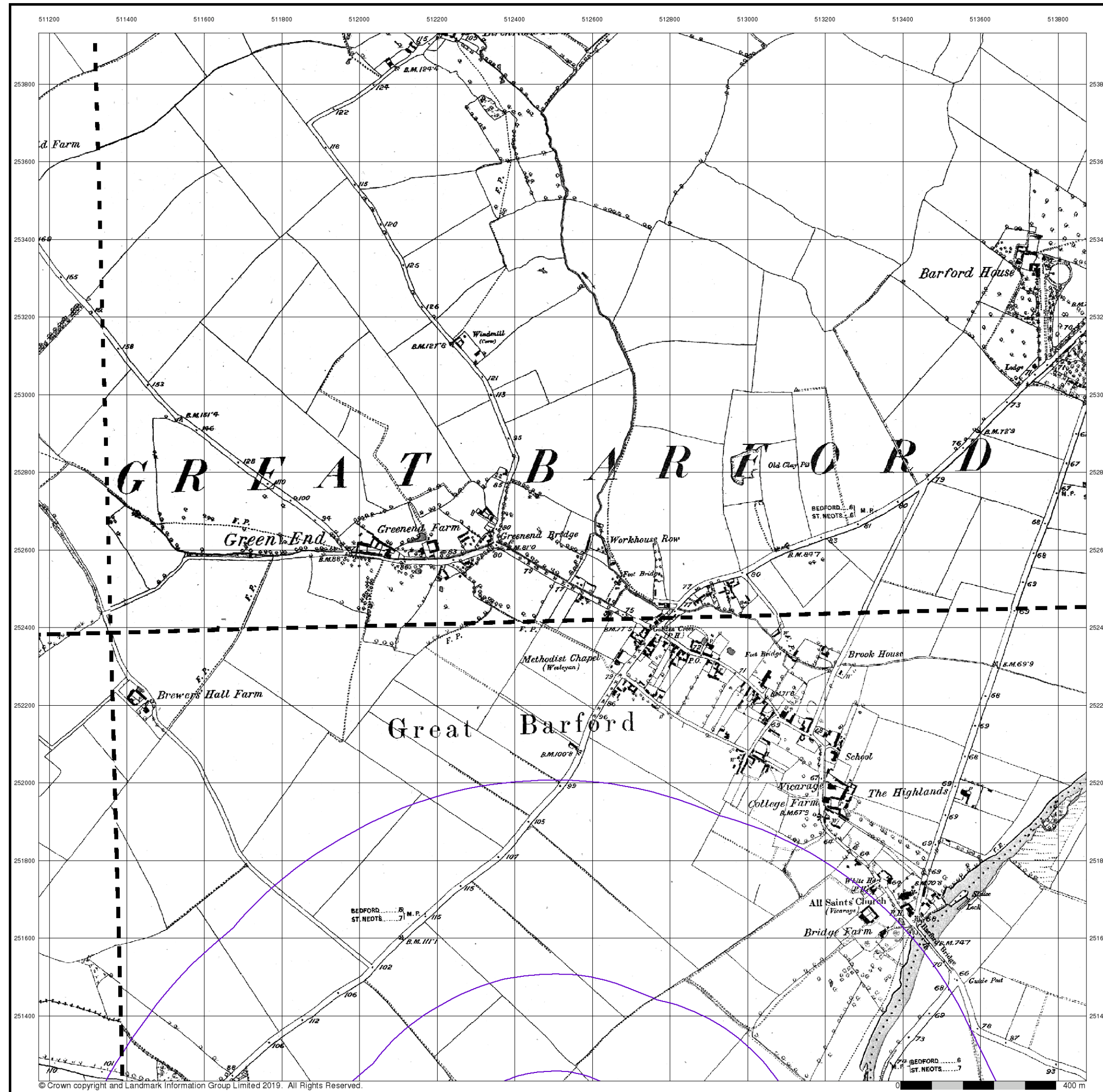
Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock

Landmark
 INFORMATION GROUP

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



Bedfordshire

Published 1884 - 1885

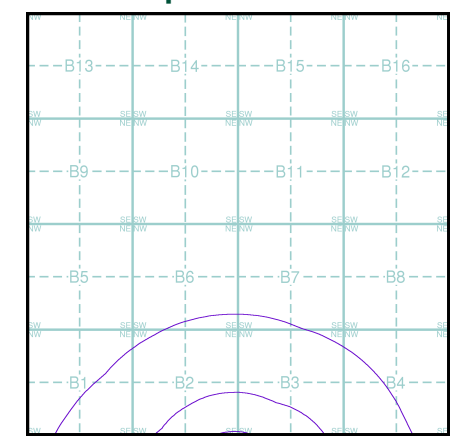
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

012NW 1884 1:10,560	012NE 1884 1:10,560
012SW 1885 1:10,560	012SE 1885 1:10,560

Historical Map - Slice B

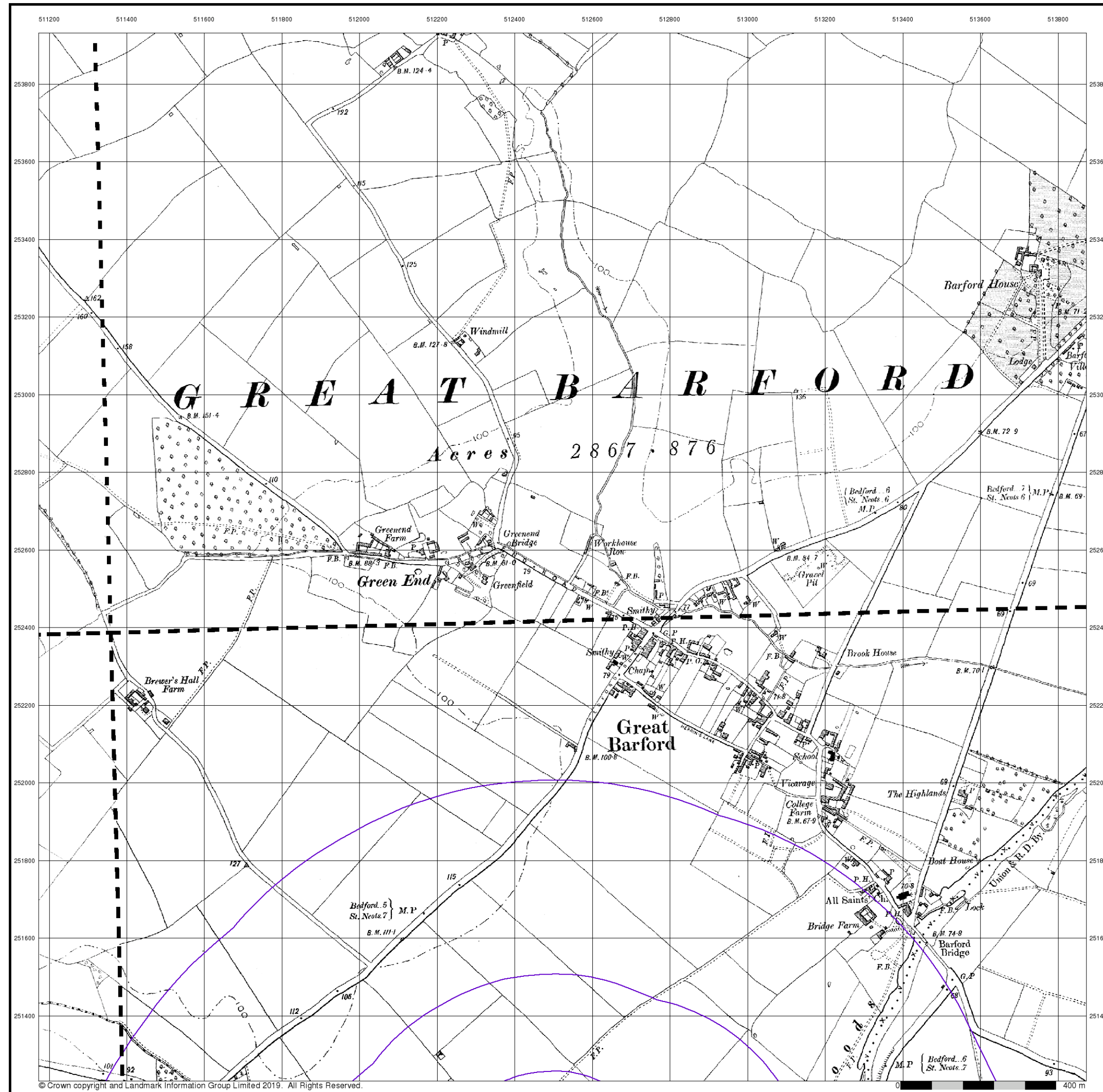


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Site Details

Willington Lock

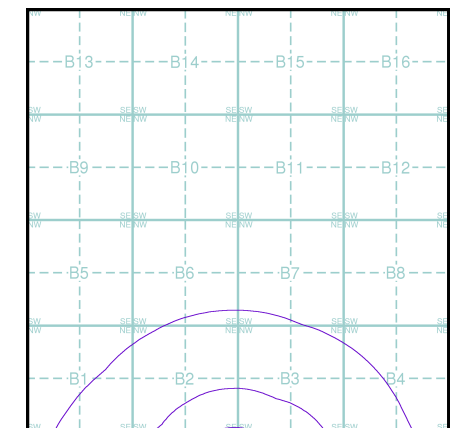


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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)

012NW 1902 1:10,560	012NE 1902 1:10,560
012SW 1902 1:10,560	012SE 1902 1:10,560

Historical Map - Slice B

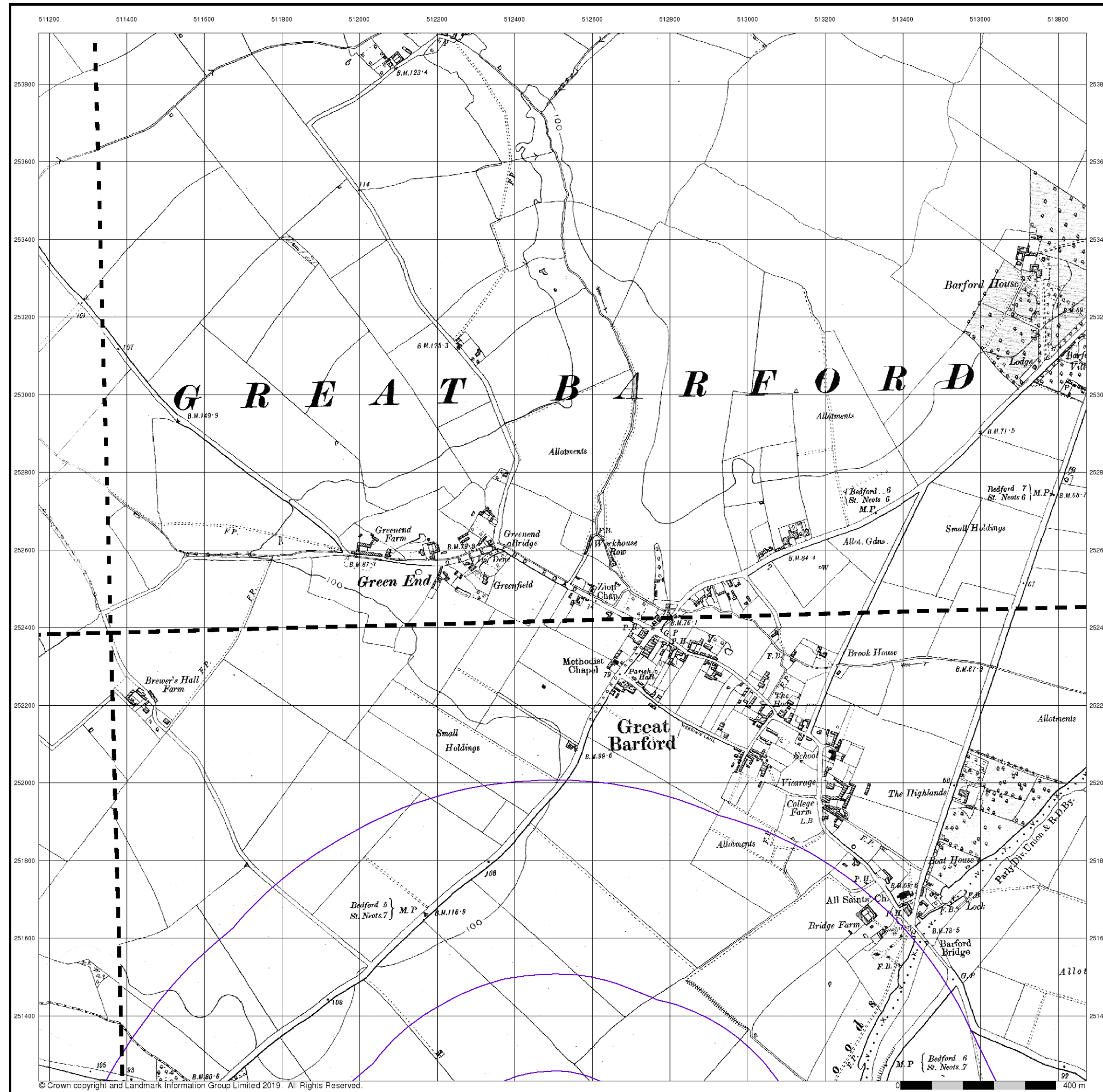


Order Details

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 National Grid Reference: 512520, 251550
 Slice: B
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 Search Buffer (m): 1000

Site Details

Willington Lock



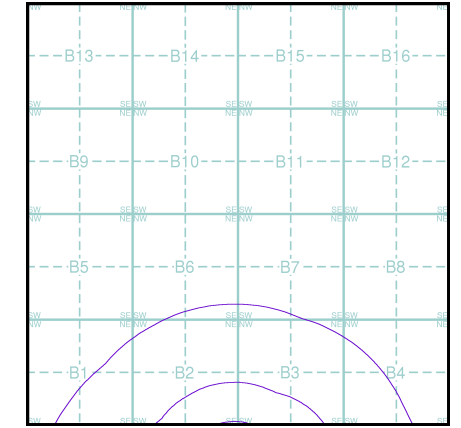
Bedfordshire
Published 1927
Source map scale - 1:10,560

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Map Name(s) and Date(s)

012NW 1927 1:10,560	012NE 1927 1:10,560
012SW 1927 1:10,560	012SE 1927 1:10,560

Historical Map - Slice B

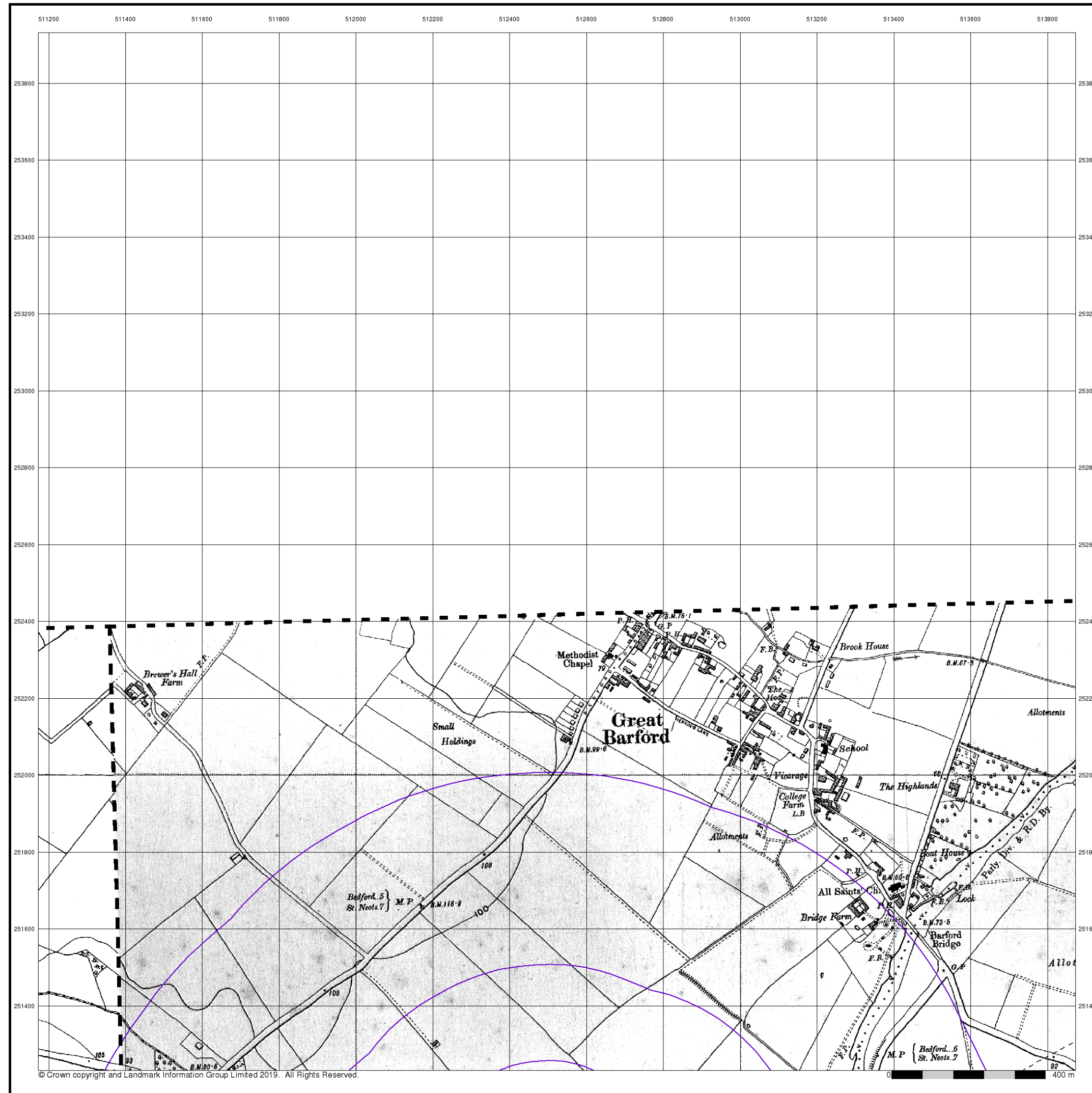


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Site Details

Willington Lock



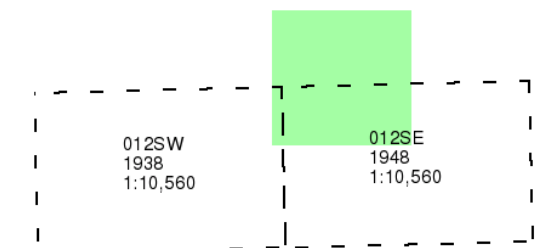
Bedfordshire

Published 1938 - 1948

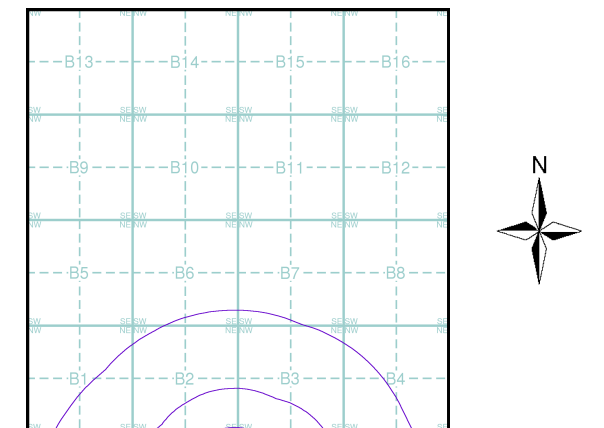
Source map scale - 1:10,560

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 B



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
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Site Details

Willington Lock

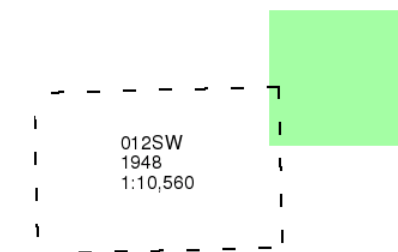
Bedfordshire

Published 1948

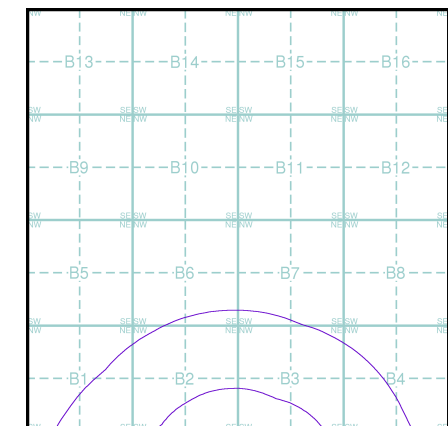
Source map scale - 1:10,560

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 B

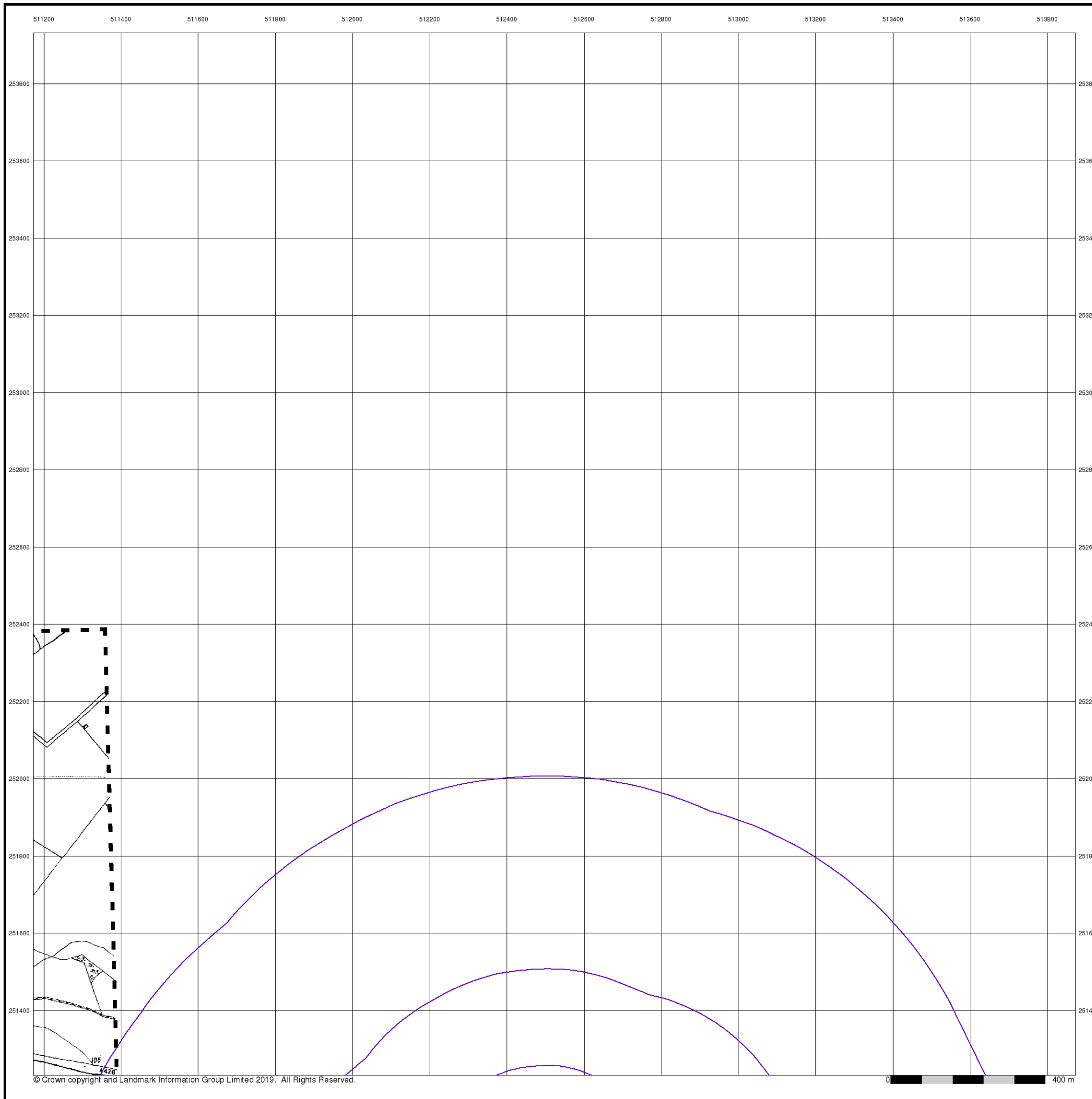


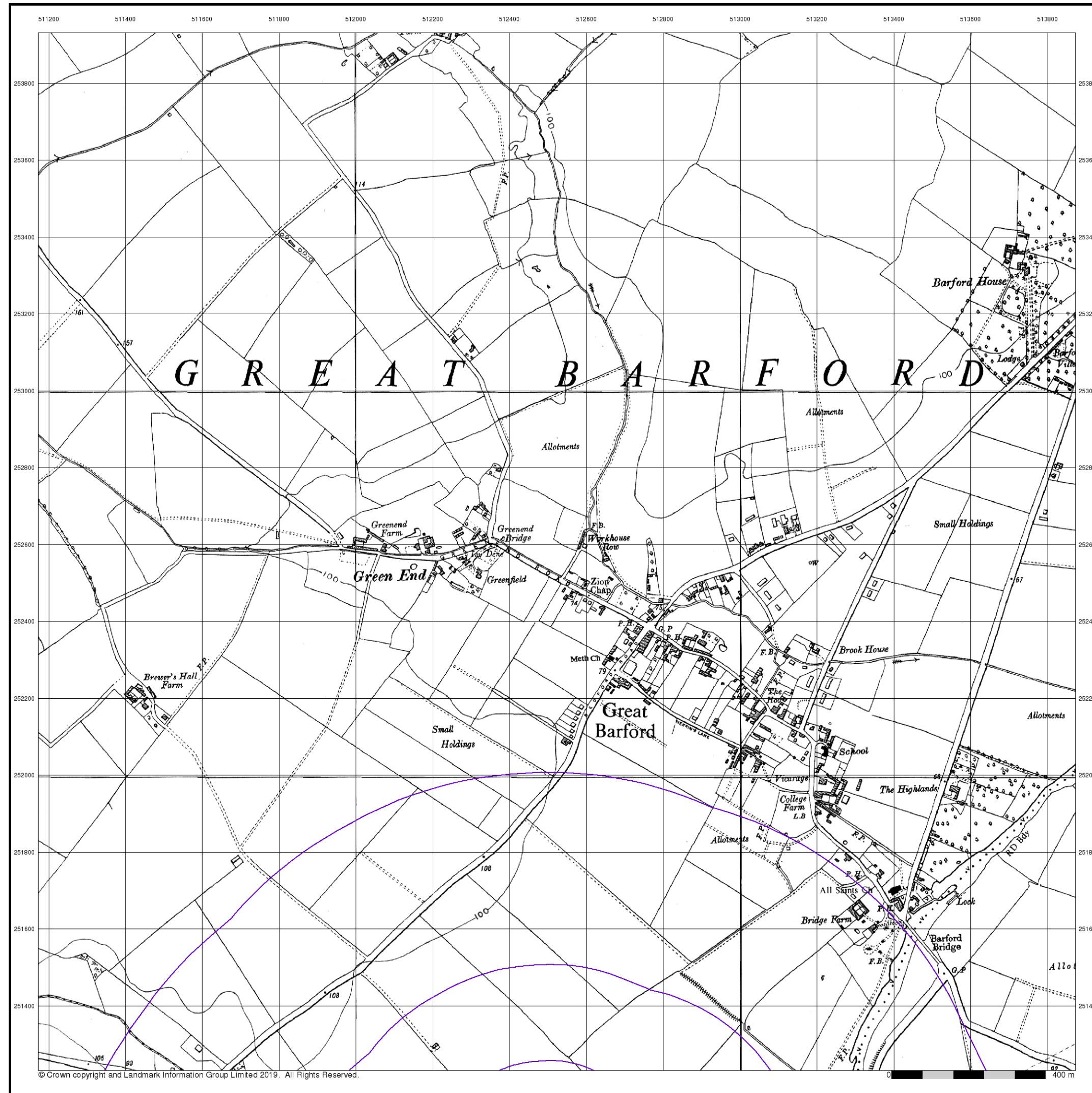
Order Details

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Slice: B
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Search Buffer (m): 1000

Site Details

Willington Lock





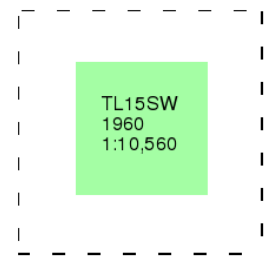
Ordnance Survey Plan

Published 1960

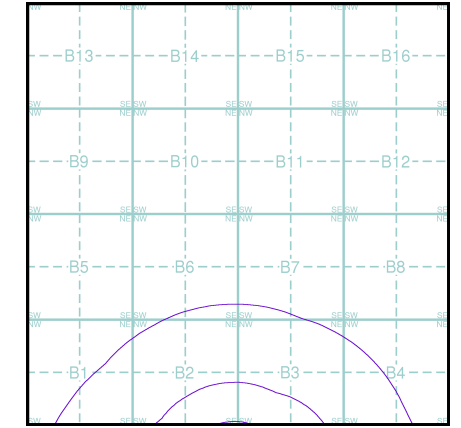
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice B

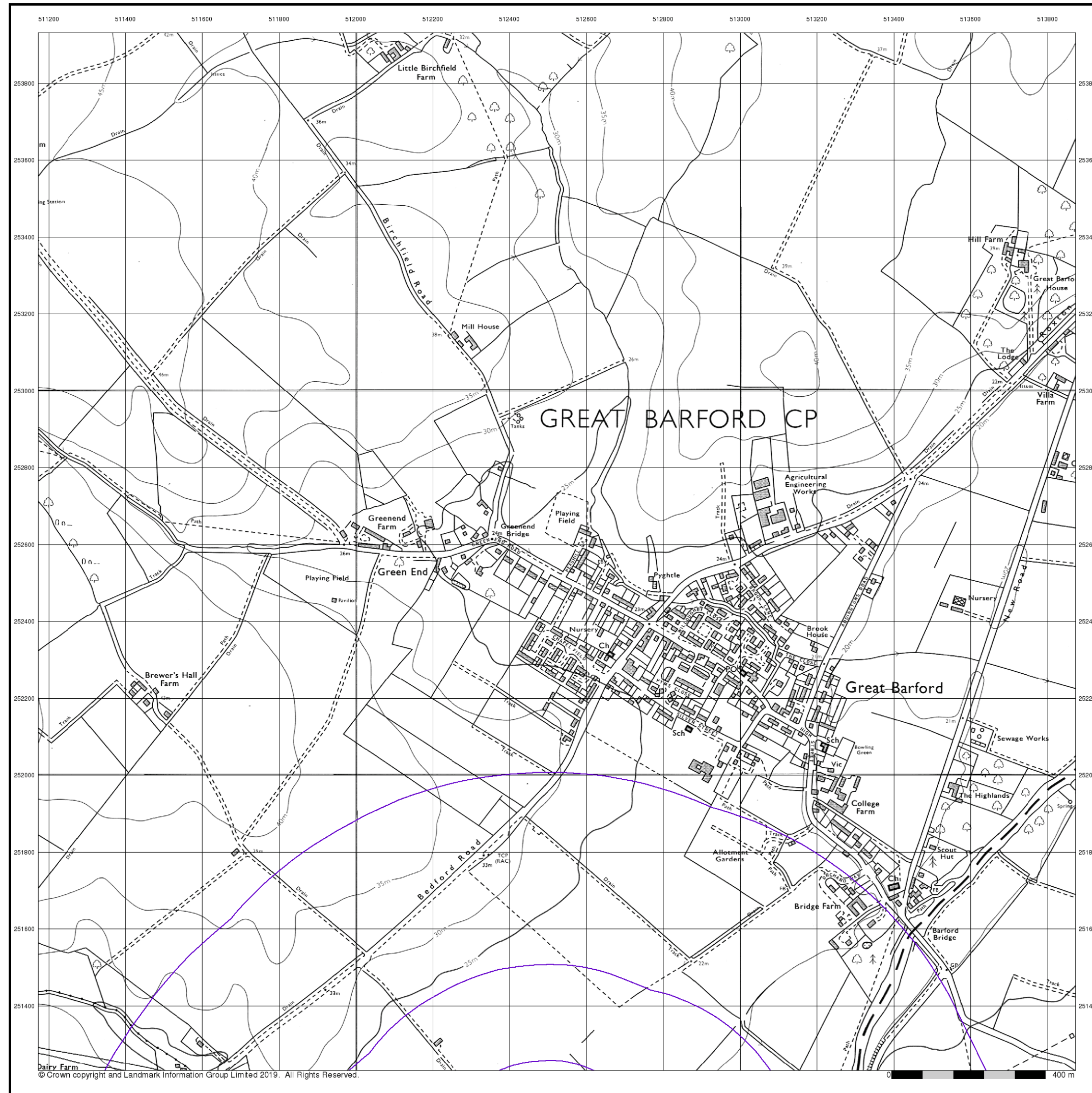


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock



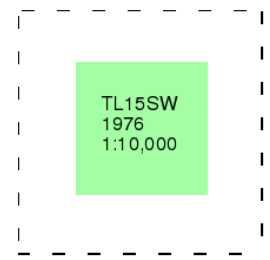
Ordnance Survey Plan

Published 1976

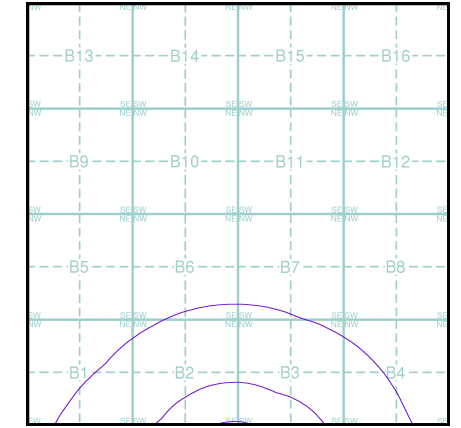
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice B

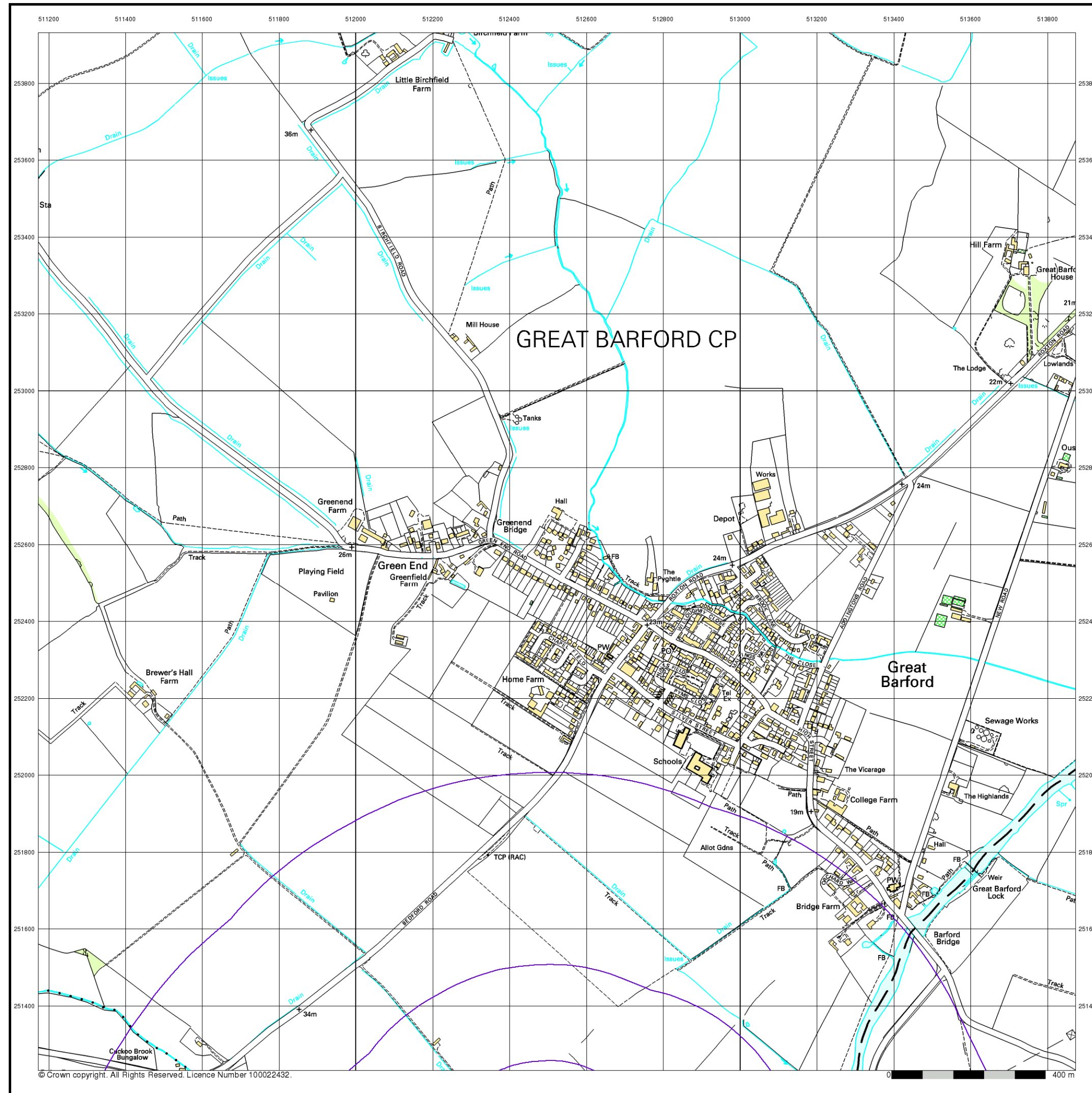


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock



Envirocheck®

● LANDMARK INFORMATION GROUP®

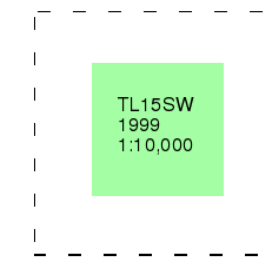
10k Raster Mapping

Published 1999

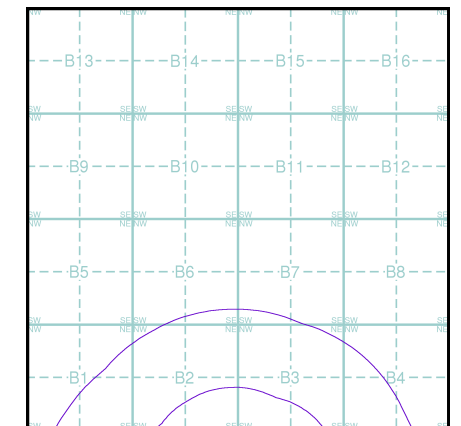
Source map scale - 1:10,000

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 B



Order Details

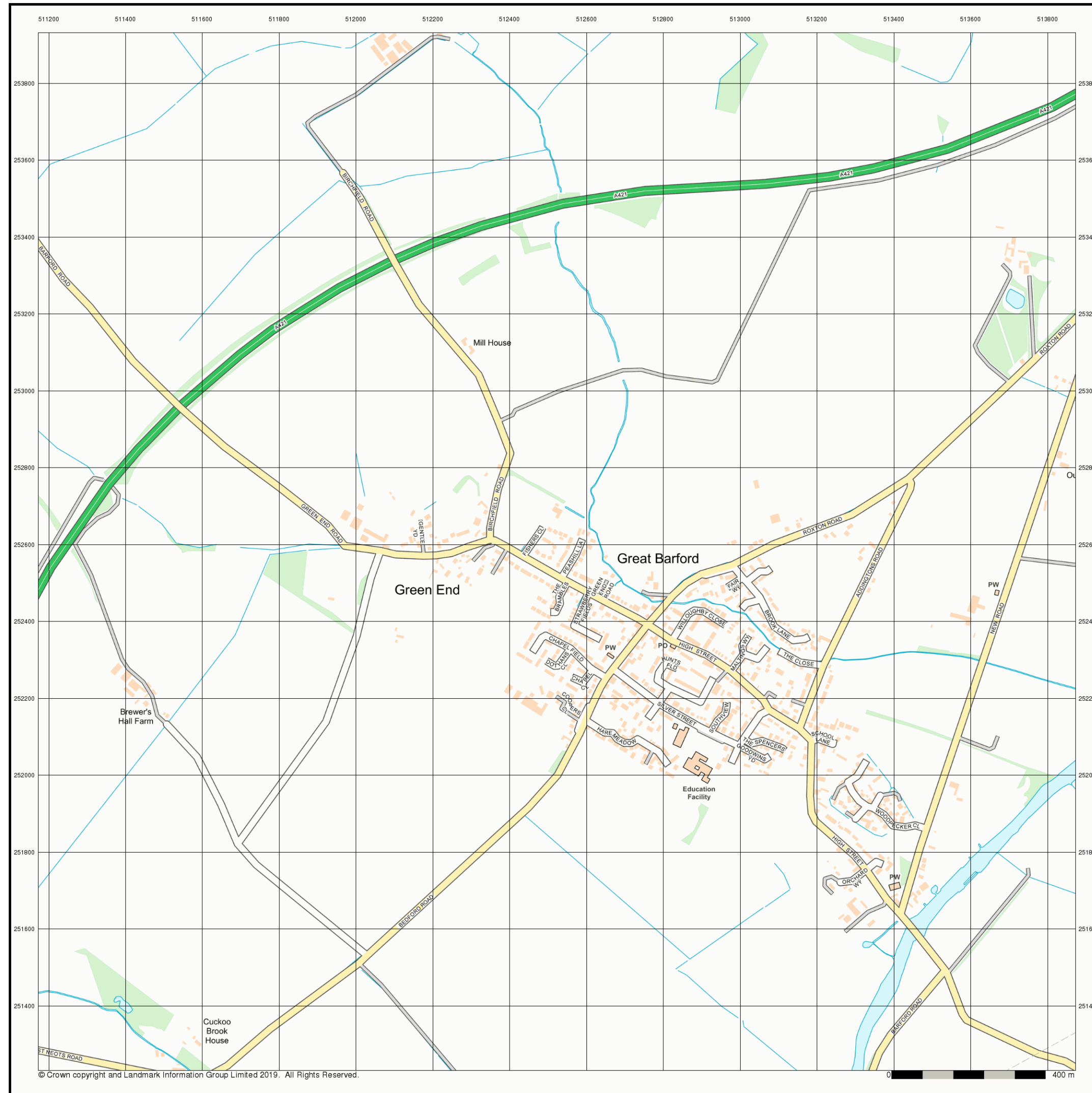
Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock

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 ●●● INFORMATION GROUP

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



Street View

Published 2019

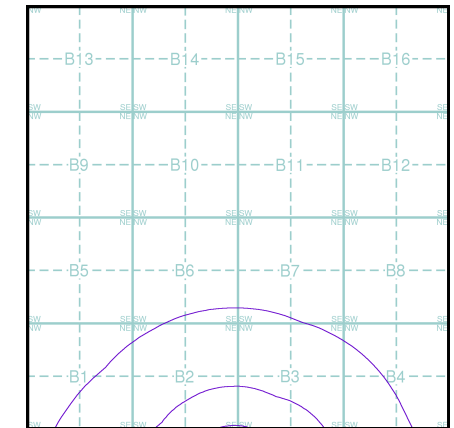
Source map scale - 1:10,000

Street View is a street-level map for the whole of Great Britain produced by the Ordnance Survey. These maps are provided at a nominal scale of 1:10,000

Map Name(s) and Date(s)



Street View Map - Slice B



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock

General

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

Agency and Hydrological

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

Waste

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

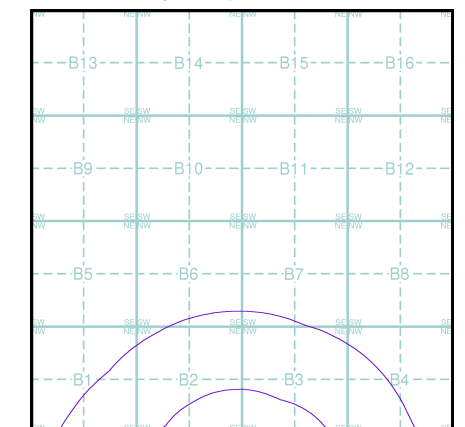
Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Slice B

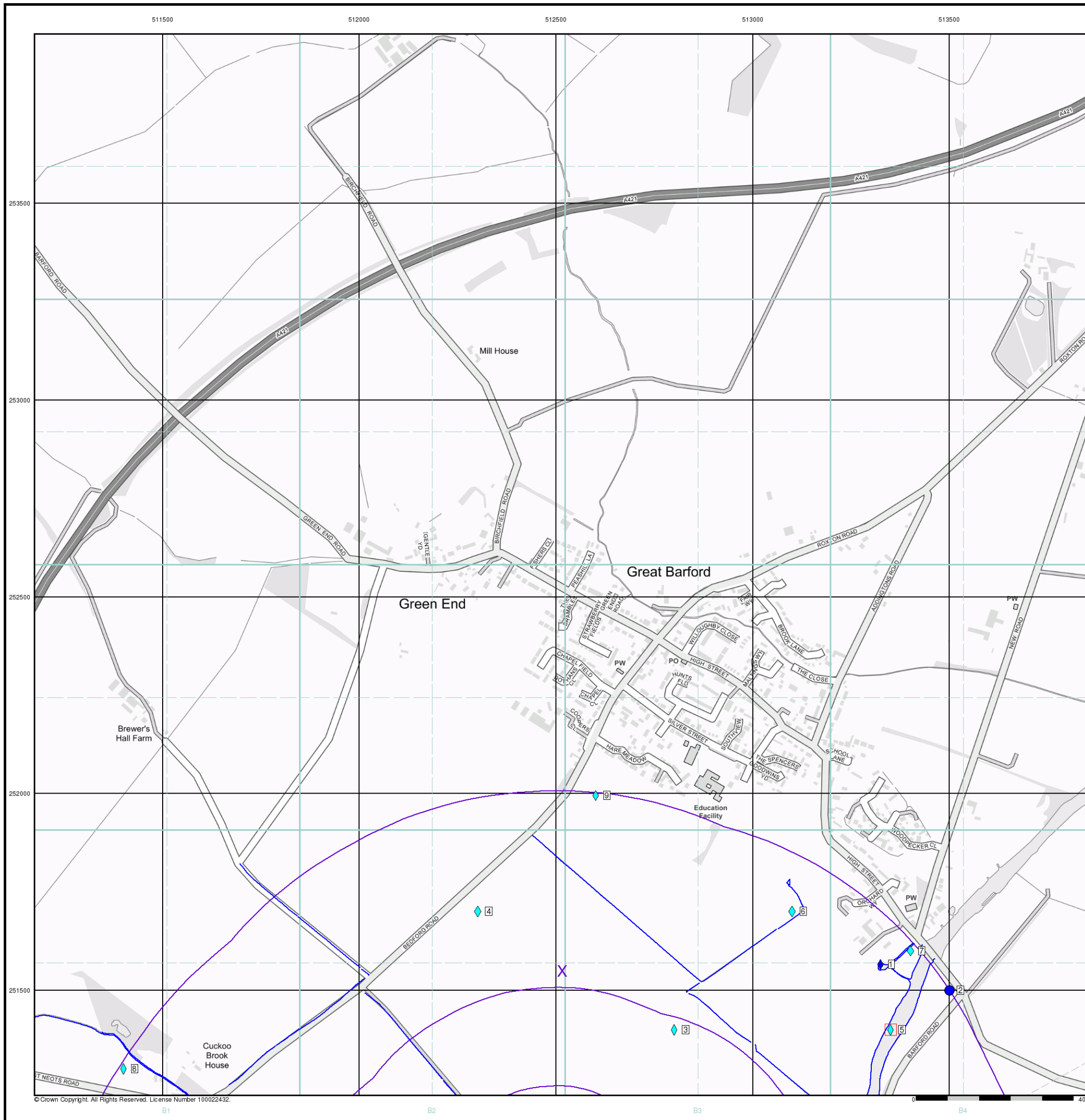


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000






Site Details

Willington Lock







Industrial Land Use Map

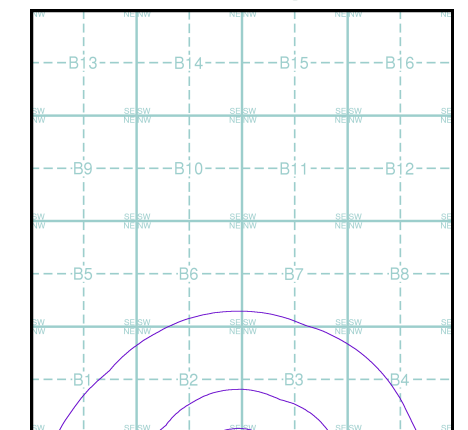
General

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

Industrial Land Use

-  Contemporary Trade Directory Entry
-  Fuel Station Entry
-  Gas Pipeline
-  Underground Electrical Cables

Industrial Land Use Map - Slice B



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000




Site Details

Willington Lock








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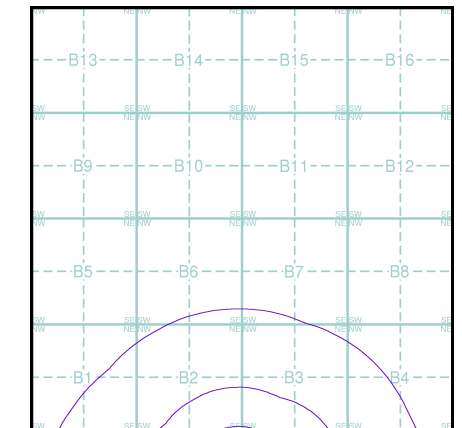
General

-  Specified Site
-  Specified Buffer(s)
-  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 B



Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000






Site Details

Willington Lock








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General

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

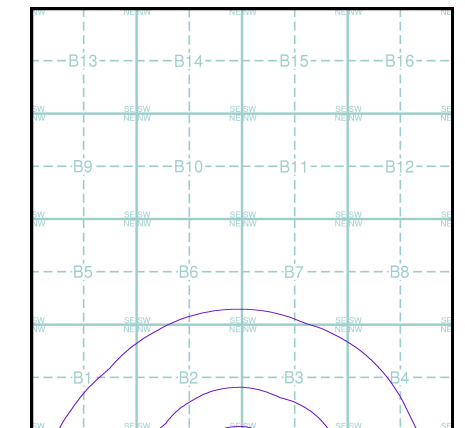
Agency and Hydrological (Boreholes)

-  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 B



Order Details




Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock



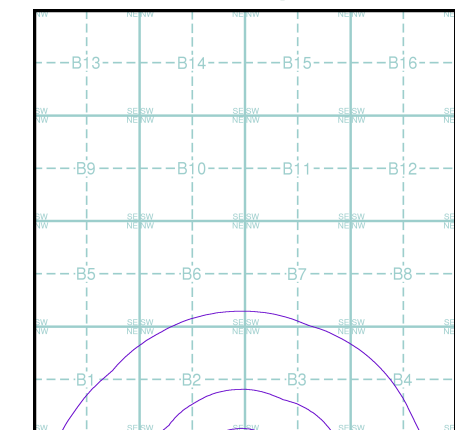
General

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

OS Water Network Data

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

OS Water Network Map - Slice B

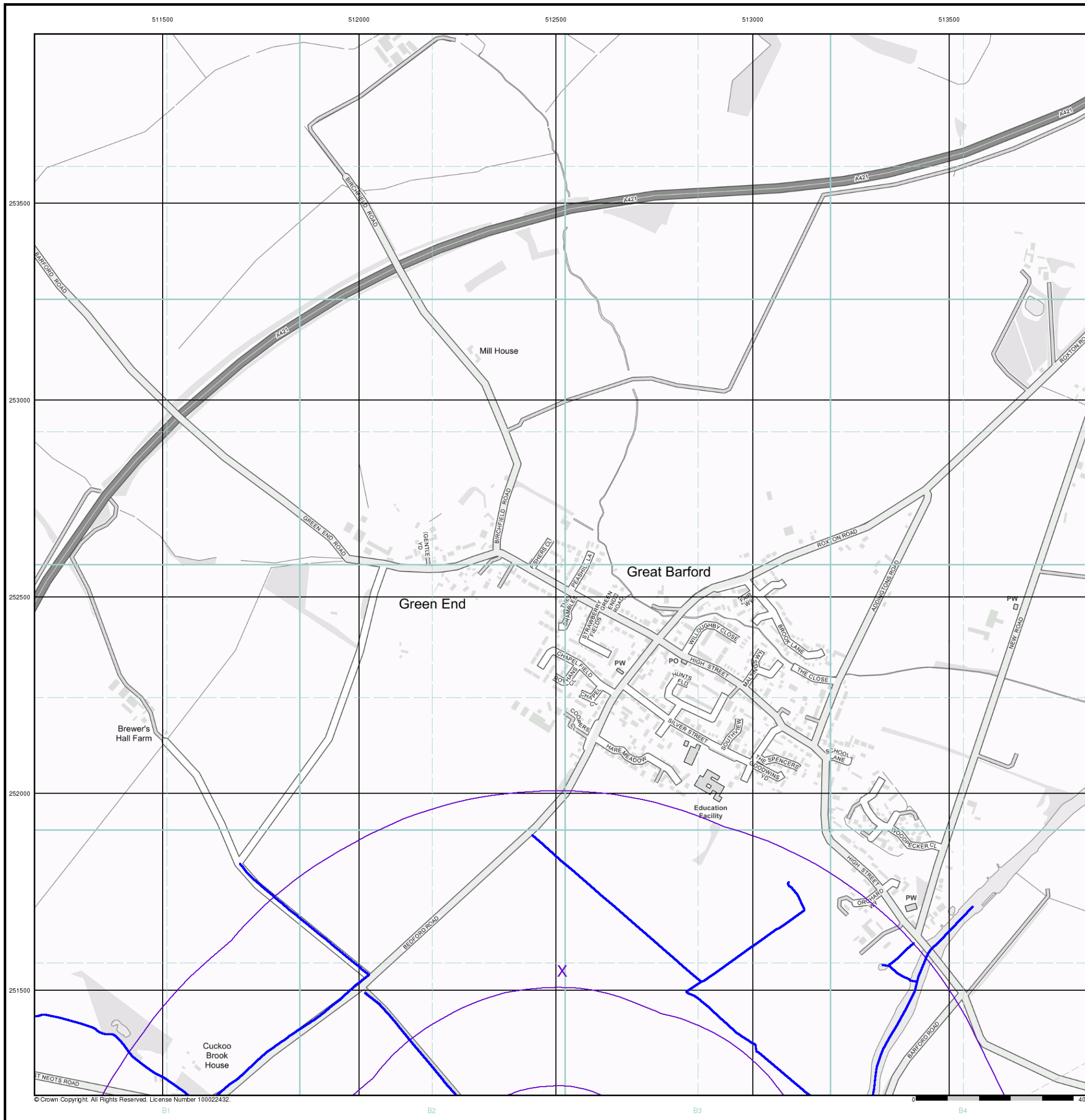


Order Details

Order Number: 222376098_1_1
 Customer Ref: BRE/WL/SE/1759/01
 National Grid Reference: 512520, 251550
 Slice: B
 Site Area (Ha): 37.42
 Search Buffer (m): 1000

Site Details

Willington Lock



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Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

J Amphlett, MJCA, Baddesley Collier Offices, Main Road, Baxterley, Atherstone, Warwickshire, CV9 2LE

Order Details

Order Number: 222376098_1_1
Customer Ref: BRE/WL/SE/1759/01
National Grid Reference: 512500, 250580
Site Area (Ha): 37.42
Search Buffer (m): 1000

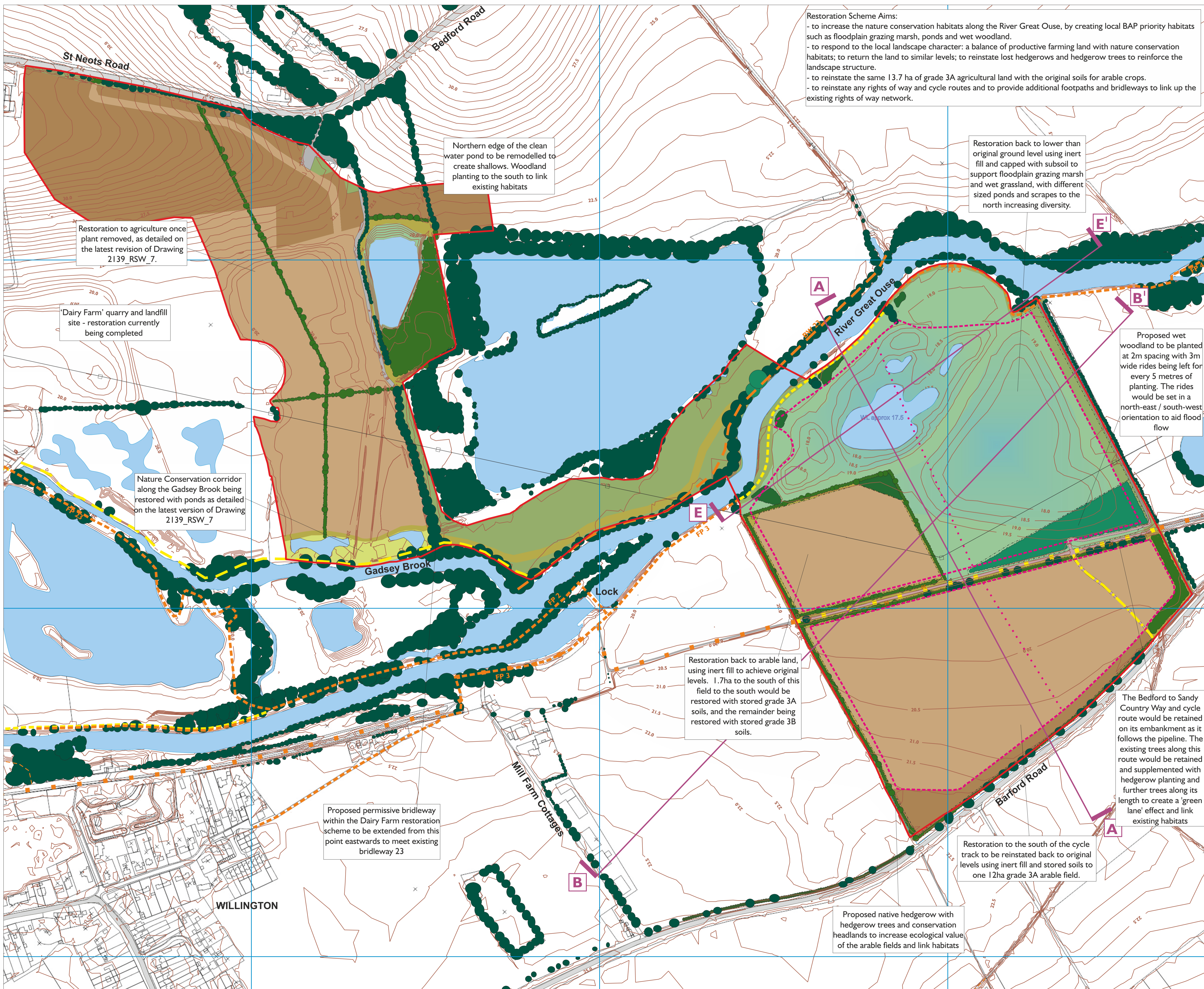
Site Details

Willington Lock

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>

APPENDIX ESSD F

**DRAWING REFERENCE W16_LAN_022 REV A ENTITLED RESTORATION STRATEGY
(PIPELINE RETAINED)**



Restoration Scheme Aims:

- to increase the nature conservation habitats along the River Great Ouse, by creating local BAP priority habitats such as floodplain grazing marsh, ponds and wet woodland.
- to respond to the local landscape character: a balance of productive farming land with nature conservation habitats; to return the land to similar levels; to reinstate lost hedgerows and hedgerow trees to reinforce the landscape structure.
- to reinstate the same 13.7 ha of grade 3A agricultural land with the original soils for arable crops.
- to reinstate any rights of way and cycle routes and to provide additional footpaths and bridleways to link up the existing rights of way network.

Northern edge of the clean water pond to be remodelled to create shallows. Woodland planting to the south to link existing habitats

Restoration back to lower than original ground level using inert fill and capped with subsoil to support floodplain grazing marsh and wet grassland, with different sized ponds and scrapes to the north increasing diversity.

Restoration to agriculture once plant removed, as detailed on the latest revision of Drawing 2139_RSW_7.

'Dairy Farm' quarry and landfill site - restoration currently being completed

Nature Conservation corridor along the Gadsey Brook being restored with ponds as detailed on the latest version of Drawing 2139_RSW_7

Restoration back to arable land, using inert fill to achieve original levels. 1.7ha to the south of this field to the south would be restored with stored grade 3A soils, and the remainder being restored with stored grade 3B soils.

Proposed permissive bridleway within the Dairy Farm restoration scheme to be extended from this point eastwards to meet existing bridleway 23

Proposed native hedgerow with hedgerow trees and conservation headlands to increase ecological value of the arable fields and link habitats

Restoration to the south of the cycle track to be reinstated back to original levels using inert fill and stored soils to one 12ha grade 3A arable field.

The Bedford to Sandy Country Way and cycle route would be retained on its embankment as it follows the pipeline. The existing trees along this route would be retained and supplemented with hedgerow planting and further trees along its length to create a 'green lane' effect and link existing habitats

- Legend**
- Site boundary
 - Limit of extraction
 - Phase boundary
 - Cross Section
 - Existing trees, woodland and hedges
 - Existing water bodies
 - Existing arable
 - Existing grassland
 - Existing track
 - Existing footpath
 - Existing Bridleway
 - Existing cycle route
 - Proposed broadleaved native woodland
 - Proposed wet woodland
 - Proposed hedgerow
 - Proposed fence
 - Proposed water body
 - Proposed arable
 - Proposed wet grassland
 - Proposed conservation grassland / headland
 - Proposed scrub
 - Proposed track
 - Proposed footpath (PROW)
 - Proposed bridleway (PROW)
 - Proposed permissive bridleway
 - Proposed cycle route
 - Proposed contour (m aOD)

Rev A: GEA/KB 270318 amendments following post submission comments

CLIENT

BREEDON

PROJECT

Willington Lock

TITLE

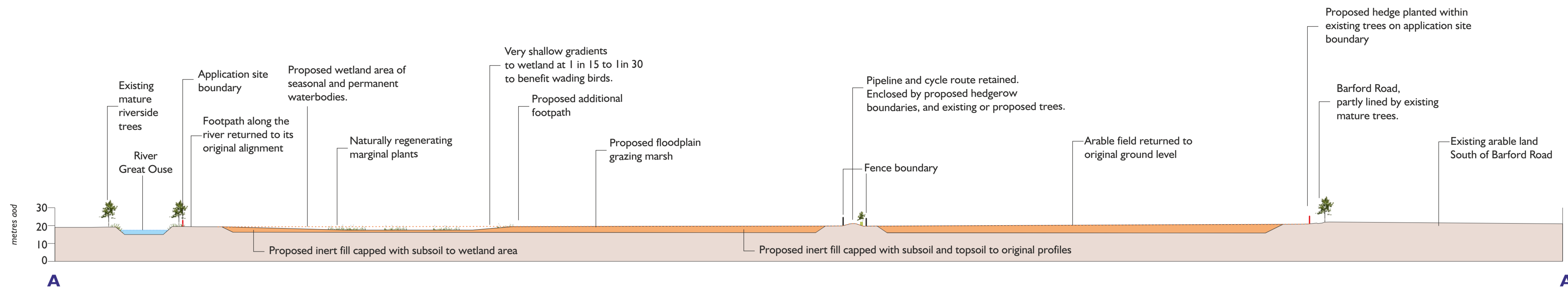
Restoration Strategy (pipeline retained)

SCALE 1:2500@ A1 **DRAWN BY** GA/TW **DATE** Oct 2017

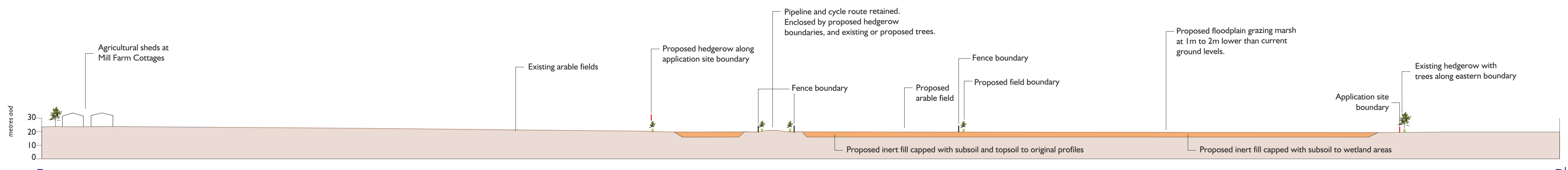
DRAWING NUMBER W16_LAN_022 **REV** A

APPENDIX ESSD G

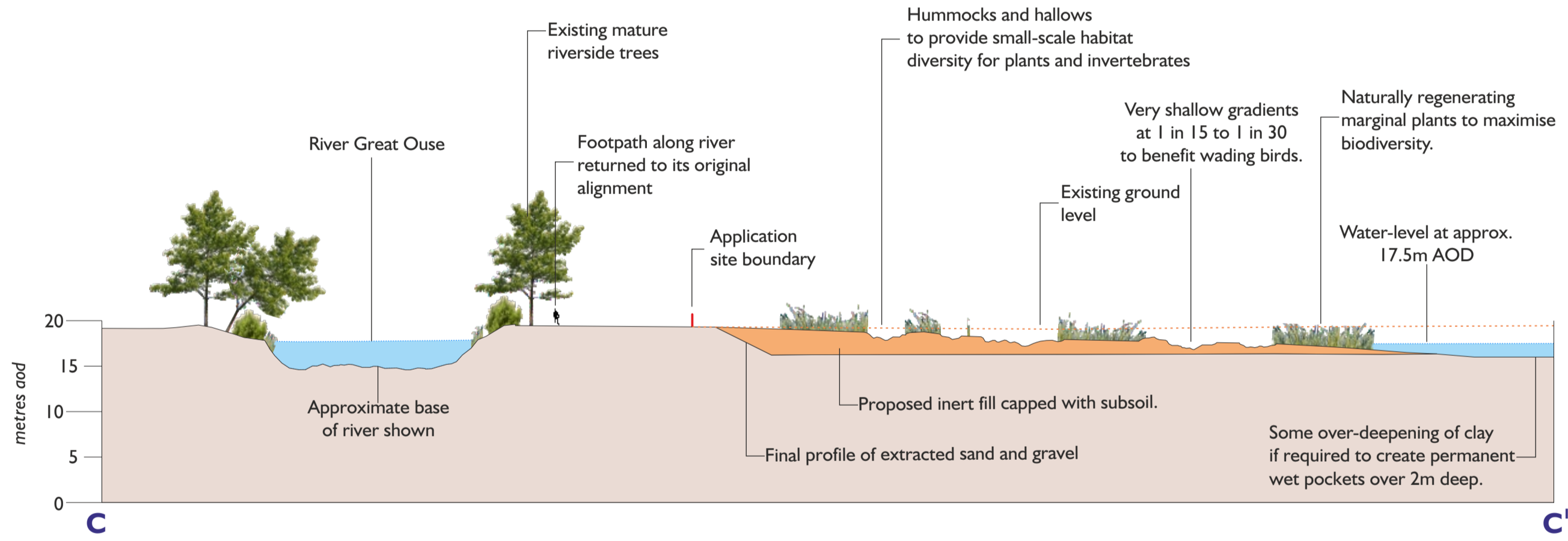
**DRAWING REFERENCE W16_LAN_023 REV A ENTITLED RESTORATION SECTIONS
(PIPELINE RETAINED)**



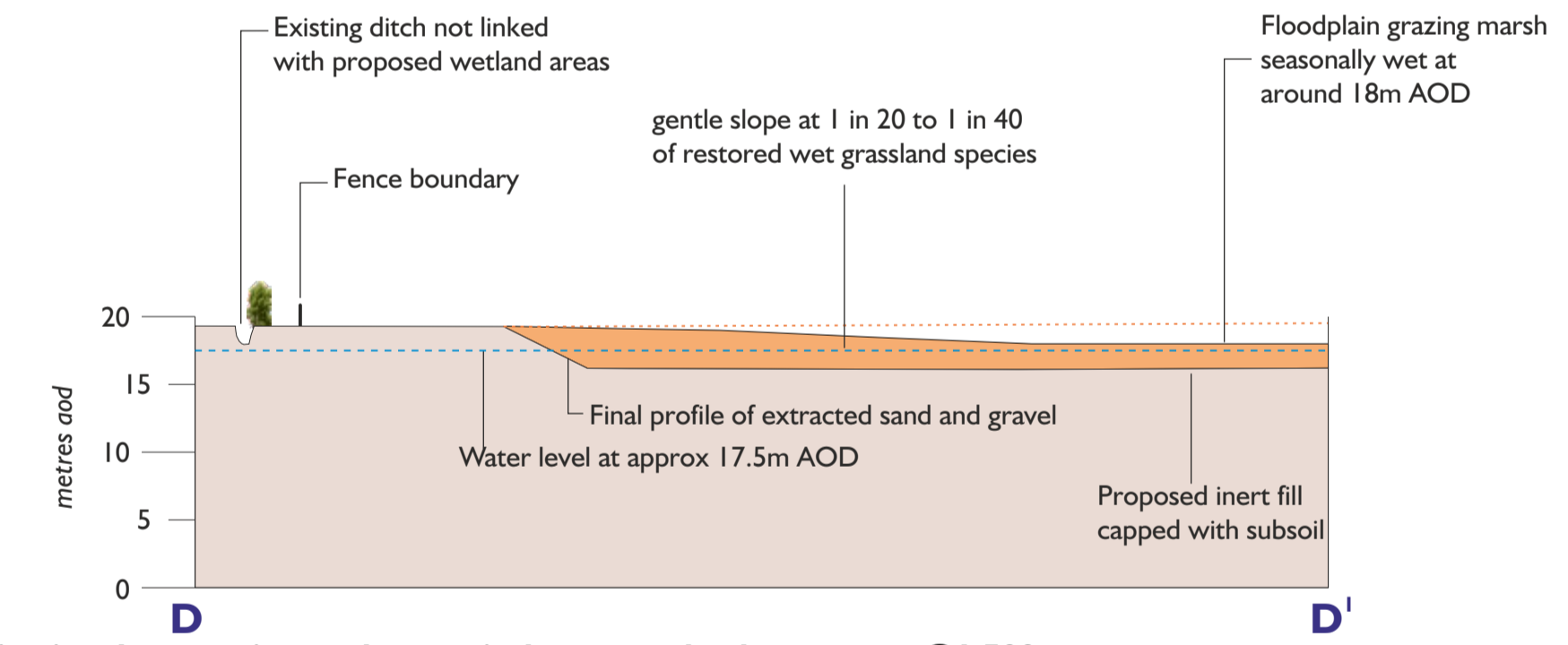
A
Long section @ 1:1500



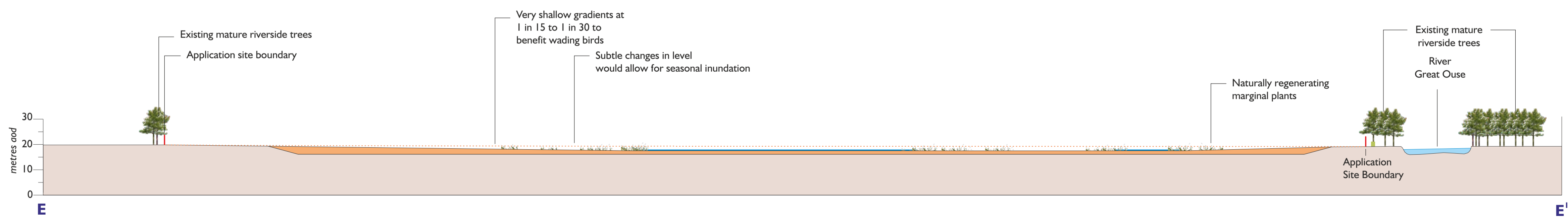
B
Long section @ 1:1500



C
Indicative short section to show typical wetland treatment @ 1:500



D
Indicative short section to show typical wet grassland treatment @ 1:500



E
Long section @ 1:1000

NOTES	CLIENT	PROJECT	TITLE	SCALE	DRAWN BY	DATE	DRAWING NUMBER	REV		
Rev A: 29/03/2018 GEA/TW Addition of long section E - E1		<p>Chartered Surveyors Chartered Landscape Architects Environmental Consultants Health and Safety Consultants</p>	<p>The Creative Industries Centre Glaisher Drive Wolverhampton WV10 9TG Tel: 01902 771311</p>	Willington Lock	RESTORATION SECTIONS (PIPELINE RETAINED)	Various scales @ A1	GA/TW	Oct 2017	W16_LAN_023	A

APPENDIX ESSD H
BOREHOLE LOGS



HOPE
Construction Materials

Hope Cement works,
Hope Valley,
Derbyshire, S33 6RP.
tel: +44(0)1433 622 311

Borehole number: WILL/11/15 (P)

Site: Willington (Hope Freehold)

Ground level: 19.687

Easting: 512450.035

Northing: 250512.9

Inclination: Vertical

Direction:

Contractor: Hughes drilling

Drill rig: RC40

Type of drilling: 8"flight auguring

Casing: None

Date: 01.11.2015

Logged by: Rebecca Emery

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.8	0.8	18.887	OVERBURDEN, TOPSOIL, CLAY RICH SOIL, Dark brown colour.		0
1	0.2	18.687	OVERBURDEN, SUBSOIL, CLAY WITH GRAVEL, Dark brown, Moderately soft, Coarse sized gravel; up to 40mm .		1
2	1	17.687	GRAVELLY SAND, Mid brown, Clean, Sand is medium to coarse grained, Gravels are predominately medium in size with a high proportion of coarse; up to 45mm, Water level is intersected at 2m.		2
3.2	1.2	16.487	GRAEVLY SAND, Mid brown, Very slightly silty, Wet, (~40%Gravel/60%Sand), Sand is predominately medium grained, Gravels are fine to medium in size with a high proportion of coarse; up to 40mm.		3
4	0.8	15.687	CLAY, Mid grey, No chalk, Moderately stiff, End of hole.		4
					5
					6
					7

Comments: 50mm piezometer inserted at 3.2m. 1m slotted. 2.2m plain.



Hope Cement works,
 Hope Valley,
 Derbyshire, S33 6RP.
 tel: +44(0)1433 622 311

Borehole number: WILL/22/15 (P)

Site: Willington (Hope Freehold)

Ground level: 19.532

Contractor: Hughes drilling

Date: 01.11.2015

Easting: 512317.44

Drill rig: RC40

Logged by: Rebecca Emery

Northing: 250838.683

Type of drilling: 8"flight auguring

Inclination: Vertical

Casing: None

Direction:

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
1.6	1.6	17.932	OVERBURDEN, CLAY, Dark to mid brown, Moderately stiff.		0
1.8	0.2	17.732	CLAY, Dark grey, Traces of peat, Soft, Water level intersected at 1,7m.		1
3.3	1.5	16.232	SANDY GRAVEL, Mid brown, Slightly silty, Wet, (~75%Gravel/25%Sand), Gravels are predominately fine to medium in size, Some coarse up to 35mm, Sand is predominately fine to medium grained, Gravels are flint and quartzite, clay rich, possibly not workable.		2
4	0.7	15.532	CLAY, Dark grey, End of hole.		3
					4
					5
					6
					7

Comments: 50mm piezometer inserted at 3.5m. 1m slotted. 2m plain.



Hope Cement works,
Hope Valley,
Derbyshire, S33 6RP.
tel: +44(0)1433 622 311

HOPE
Construction Materials

Borehole number: WILL/41/15 (P)

Site: Willington (Hope Freehold)

Ground level: 19.642

Contractor: Hughes drilling

Date: 01.11.2015

Easting: 512622.868

Drill rig: RC40

Logged by: Rebecca Emery

Northing: 250941.506

Type of drilling: 8"flight auguring

Inclination: Vertical

Casing: None

Direction:

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
2.4	2.4	17.242	OVERBURDEN, TOPSOIL, Mid brown, Moderately firm.		0
2.6	0.2	17.042	CLAY WITH GRAVEL, Soft, very dark colour - organic, Gravels are flint.		1
3.5	0.9	16.142	GRAVELLY SAND, Mid to dark brown, Silty, Wet, (~35%Gravel/65%Sand), Clay rich (Possibly contamination from above), Sand is medium grained, Gravels are fine to medium in size with a large proportion of coarse, Gravels are flint and quartzite, NOT WORKABLE.		2
4	0.5	15.642	CLAY, Mid grey, Contains chalk, End of hole.		3
					4
					5
					6
					7

Comments: 50mm peizometer inserted at 3.5m. 1m slotted. 2.5m plain.



Hope Cement works,
Hope Valley,
Derbyshire, S33 6RP.
tel: +44(0)1433 622 311

HOPE
Construction Materials

Borehole number: WILL/45/15 (P)

Site: Willington (Hope Freehold)

Ground level: 19.562

Easting: 512794.336

Northing: 250602.13

Inclination: Vertical

Direction:

Contractor: Hughes drilling

Drill rig: RC40

Type of drilling: 8"flight auguring

Casing: None

Date: 01.11.2015

Logged by: Rebecca Emery

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.5	0.5	19.062	OVERBURDEN, TOPSOIL, CLAY, Dark brown colour.		0
1	0.5	18.562	OVERBURDEN, SUBSOIL, SANDY CLAY, Few gravels.		1
3.4	2.4	16.162	GRAVELLY SAND,, Mid brown, Dry, Very slightly silty, (~40%Gravel/60%Sand) Sand is medium grained, Gravels are predominately fine to medium in size with occasional coarse; up to 35mm, Gravels are flint and quartzite, General increase in coarse size and freq		2 3
4	0.6	15.562	CLAY, Dark grey, Minimal chalk present, End of hole.		4
					5 6 7

Comments: 50mm piezometer inserted at 3.5m. 1m slotted. 2.5m plain.



Hope Cement works,
 Hope Valley,
 Derbyshire, S33 6RP.
 tel: +44(0)1433 622 311

Borehole number: WILL/48/15 (P)

Site: Willington (The Bedford Councils "South")

Ground level: 20.892

Contractor: Hughes drilling

Date: 01.11.2015

Easting: 512995.609

Drill rig: RC40

Logged by: Chris Burgess

Northing: 250475.453

Type of drilling: 8"flight auguring

Inclination: Vertical

Casing: None

Direction:

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
1	1	19.892	SILTY SAND, Medium brown, Very silty, Sand is fine grained, Occasional medium gravel, (NOT WORKABLE).		0
1.6	0.6	19.292	SILTY SAND WITH GRAVEL, Medium brown, Very Silty, Sand is very fine to fine grained, Gravels are medium in size, (probably not workable).		1
4.7	3.1	16.192	SAND, Medium brown, (~30%Gravel/70% Sand), Sand is medium to coarse grained, Gravels are fine to medium in size, up to 40mm, Sand becomes cleaner with depth, Water level intersected at 2m, At 2-3m there is good, clean material, Gravel with an average size of 10mm.		2
5	0.3	15.892	CLAY, Dark grey, Stiff, Lack of chalk, End of hole.		3
					4
					5
					6
					7

Comments: 50mm piezometer inserted at 5m. 2m slotted, 3m plain.



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Borehole number: WILL/59/15 (P)

Site: Willington (The Bedford Councils "South")

Ground level: 22.037

Contractor: Hughes drilling

Date: 01.11.2015

Easting: 513251.58

Drill rig: RC40

Logged by: Chris Burgess

Northing: 250543.45

Type of drilling: 8"flight auguring

Inclination: Vertical

Casing: None

Direction:

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.3	0.3	21.737	TOPSOIL, CLAY, Dark brown, Moderately firm, Contains some gravel, Gravels are medium to coarse in size.		0
1	0.7	21.037	SUBSOIL, CLAY WITH GRAVEL, Medium-dark brown/Gravels are medium to coarse in size.		1
2	1	20.037	SILTY SAND AND GRAVEL, Orange/brown, Silty, Sand is medium to fine grained, Gravels are medium to coarse in size, (overburden?).		2
4	2	18.037	SILTY SAND, Medium brown, Damp, Very silty, Sand is medium to fine grained, Occasional medium to coarse gravel, Proportion of gravel increases with depth up to 30%.		3
5.7	1	17.037	SILTY SAND, As above but less gravel, Wet, Brown to orange in colour, Sand is medium grained, At 4,5m Gravels reach up to 40mm, Water level intersected at 5m.		4
6	0.3	16.037	CLAY, Dark grey/green, Stiff, End of hole.		6
					7

Comments: 50mm piezometer inserted at 6m. 2m Slotted, 4m Plain



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HOPE
Construction Materials

Borehole number: WILL/67/15 (P)

Site: Willington (The Bedford Councils "South")

Ground level: 21.422

Contractor: Hughes drilling

Date: 01.11.2015

Easting: 513236.013

Drill rig: RC40

Logged by: Chris Burgess

Northing: 250689.612

Type of drilling: 8"flight auguring

Inclination: Vertical

Casing: None

Direction:

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.5	0.5	20.922	TOPSOIL, Sandy, Medium brown, Sand is fine to medium grained with silt, Gravels are medium to coarse in size, up to 40mm, Gravels are quartzite predominately, (~45%Gravel) .		0
6.4	5.9	15.022	SAND AND GRAVEL, Medium brown, Damp, Very slightly silty to clean, (~40%Gravel/60%Sand), Sand is medium grained with grit, Gravels are medium to coarse in size, up to 50mm, At 2,5m the sand becomes medium to fine grained, At 3,5m sand appears to wash out,		1 2 3 4 5 6
7	0.6	14.422	CLAY, Dark grey, Stiff, No chalk, End of hole.		7

Comments: 50mm piezometer installed at 5m, 1m slotted, 4m Plain



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HOPE
Construction Materials

Borehole number: WILL/231/16

Site: Willington (Gates Freehold)

Ground level: 19.736

Easting: 512165

Northing: 250627

Inclination: Vertical

Direction:

Contractor: Hughes Drilljng

Drill rig: RC40

Type of drilling: 8" flight augering

Casing: None

Date: 4/29/2016

Logged by: Chris Burgess

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.4	0.4	19.336	TOPSOIL, Dark Brown, Clayey with occasional Medium Flits Gravels		0
2.6	2.2	17.136	SILTY SAND, Mid Orange Brown, Medium, Very Silty, Sand becomes Stiff Clay to the base		1
3.5	0.9	16.236	CLAY, Dark Grey Green, Stiff Clay. No Chalk. End of Hole		3
					4
					5
					6
					7

Comments: 50mm piezometer installed to 3mbgl (1.5m slotted, 1.5m plain, 0.5m plain above ground), backfilled with 10mm gravel to 0.8



HOPE
Construction Materials

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Borehole number: WILL/224/16

Site: Willington (Gates Freehold)

Ground level: 22.743

Easting: 512442

Northing: 250184

Inclination: Vertical

Direction:

Contractor: Hughes Drilljng



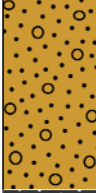

Drill rig: RC40

Type of drilling: 8" flight augering

Casing: None

Date: 4/29/2016

Logged by: Chris Burgess

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.4	0.4	22.343	TOPSOIL, Very Dark Brown, with Soft Clay		0
1.5	1.1	21.243	SUBSOIL, Dark Red Brow, Very Silty		1
2.5	1	20.243	SAND AND GRAVEL, Dark Orange Brown, Very Silty. Not workable		2
3	0.5	19.743	CLAY, Dark Grey Blue, with Fine to Medium Chalk Gravels in a stiff Clay Matrix. End of Hole		3
					4
					5
					6
					7

Comments: 50mm piezometer installed to 2.5mbgl (1.5m slotted, 1.7m plain, 0.5m plain above ground), backfilled with 10mm gravel to C



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HOPE
Construction Materials

Borehole number: WILL/255/16

Site: Willington (Gates Freehold)

Ground level: 21.514

Easting: 511922

Northing: 250350

Inclination: Vertical

Direction:

Contractor: Hughes Drilljng

Drill rig: RC40

Type of drilling: 8" flight augering

Casing: None

Date: 4/29/2016

Logged by: Chris Burgess

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.2	0.2	21.314	TOPSOIL, Dark Brown, Clay with Medium Gravels		0
0.7	0.5	20.814	SUBSOIL, Dark Red Brow, Very Silty		
3	2.3	18.514	SAND AND GRAVEL, Mid Brown, Medium, Slightly Silty Sand with Medium to Coarse Gravels. 60/40. Becomes predominately gravels with depth		1 2 3
4	1	17.514	CLAY, Dark Grey Blue, Stiff Clay. End of Hole		4
					5 6 7

Comments: 50mm piezometer installed to 2.5mbgl (1.5m slotted, 1m plain, 0.5m plain above ground), backfilled with 10mm gravel to 0.8



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HOPE
Construction Materials

Borehole number: WILL/264/16

Site: Willington (Gates Freehold)

Ground level: 23.744

Easting: 512044

Northing: 250109

Inclination: Vertical

Direction:

Contractor: Hughes Drilljng

Drill rig: RC40

Type of drilling: 8" flight augering

Casing: None

Date: 4/29/2016

Logged by: Chris Burgess

Depth (m)	Thickness (m)	Level (m AOD)	Description	Log	Sample Depth (m)
0.4	0.4	23.344	TOPSOIL, Dark Brown with Soft Clays		0
2.6	2.2	21.144	SAND AND GRAVEL, Mid Brown, Medium, Very Slightly Silty Sand with Medium Angular Gravel.		1 2
3	0.4	20.744	CLAY, Dark grey, stiff clay with very occasional medium chalks. End of Hole		3
					4 5 6 7

Comments: 50mm piezometer installed to 3mbgl (1.5m slotted, 1.5m plain, 0.5m plain above ground), backfilled with 10mm gravel to 0.8

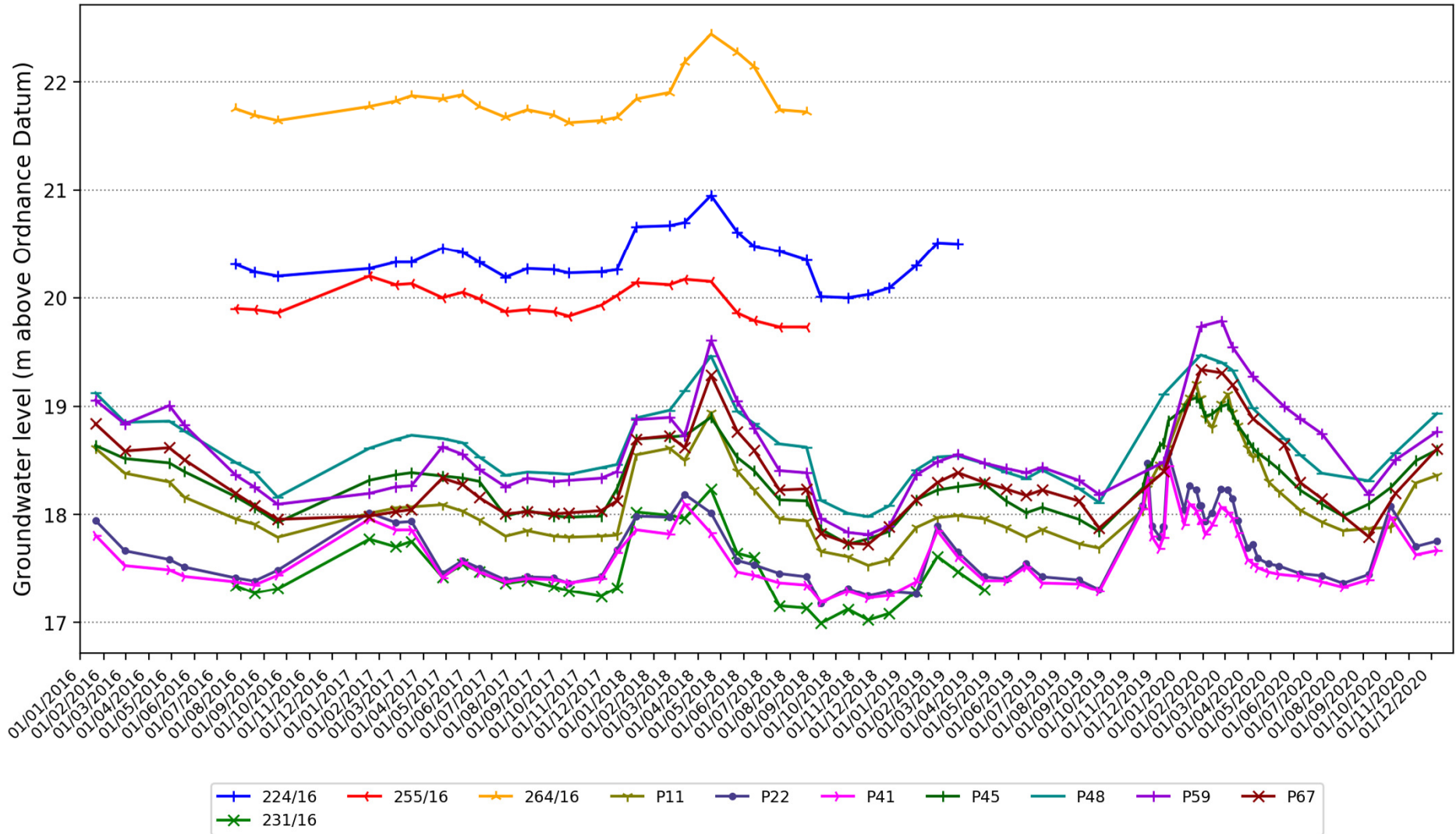
APPENDIX ESSD I

**DATA PROVIDED BY THE ENVIRONMENT AGENCY AND BEDFORD BOROUGH
COUNCIL**

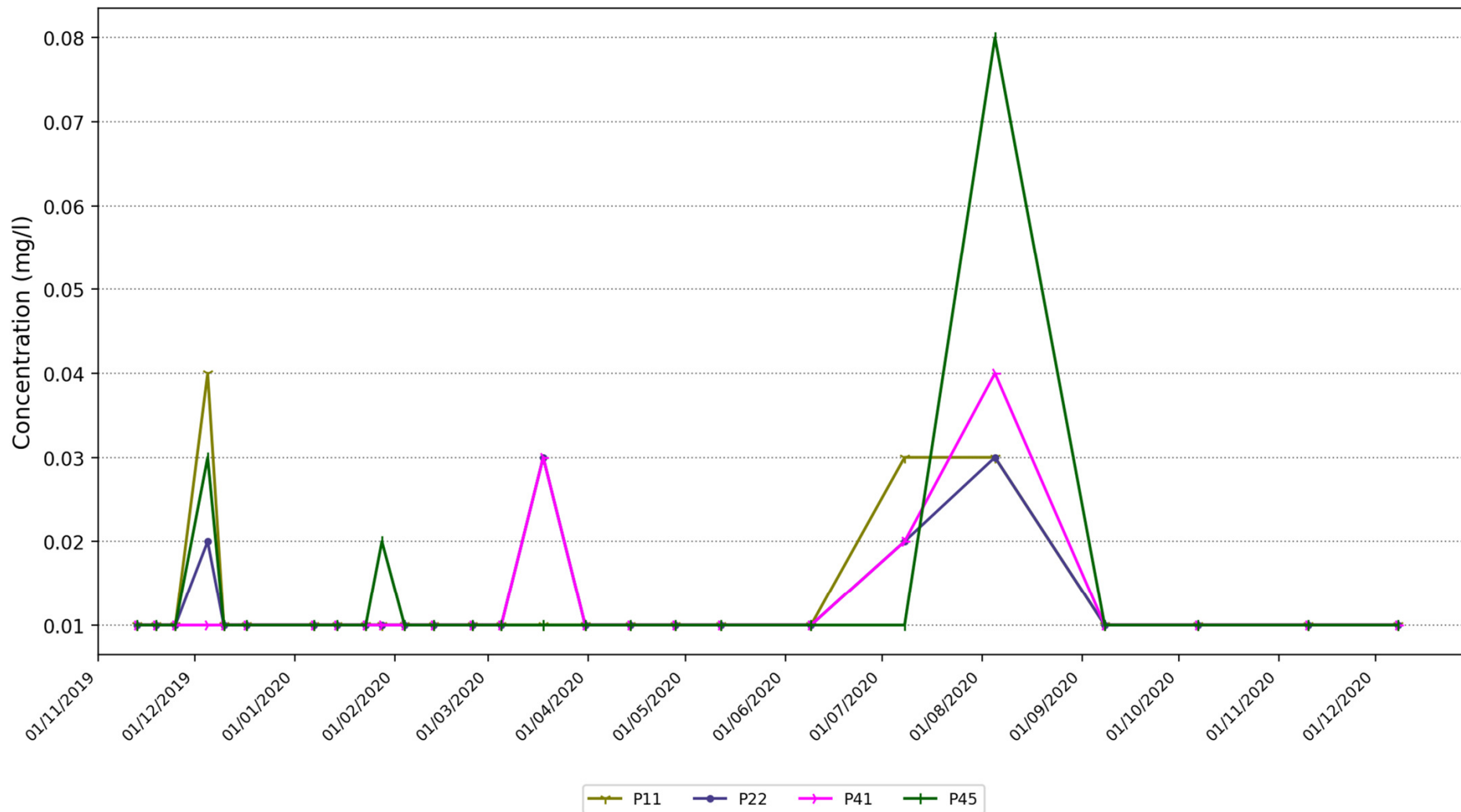
APPENDIX ESSD J
THE MONITORING DATABASE FOR THE SITE

APPENDIX ESSD K
GRAPHICAL SUMMARIES OF GROUNDWATER LEVELS AND GROUNDWATER
QUALITY AT THE SITE

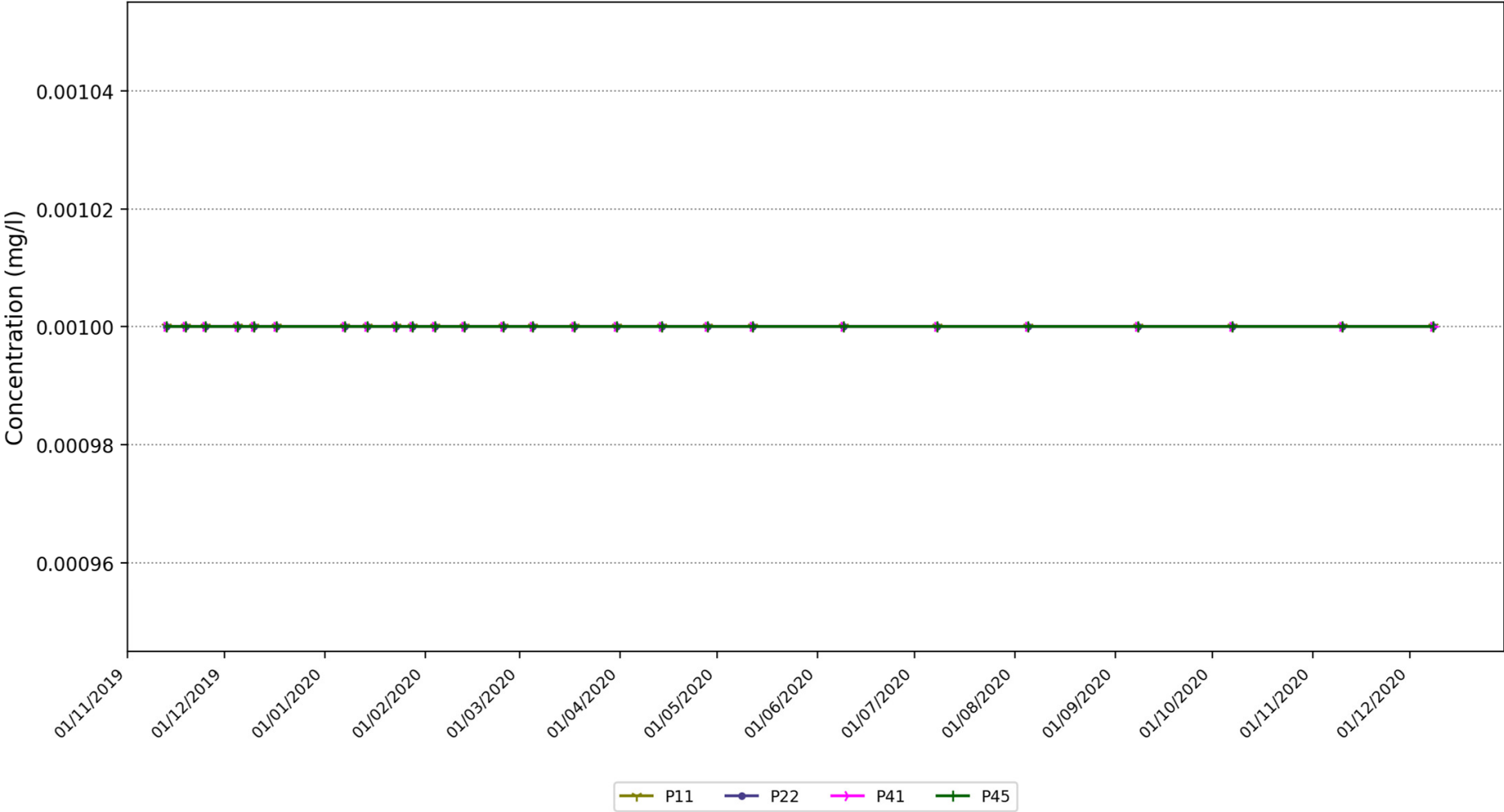
Graph showing the variation in groundwater levels in the groundwater monitoring boreholes in the vicinity of Willington Lock



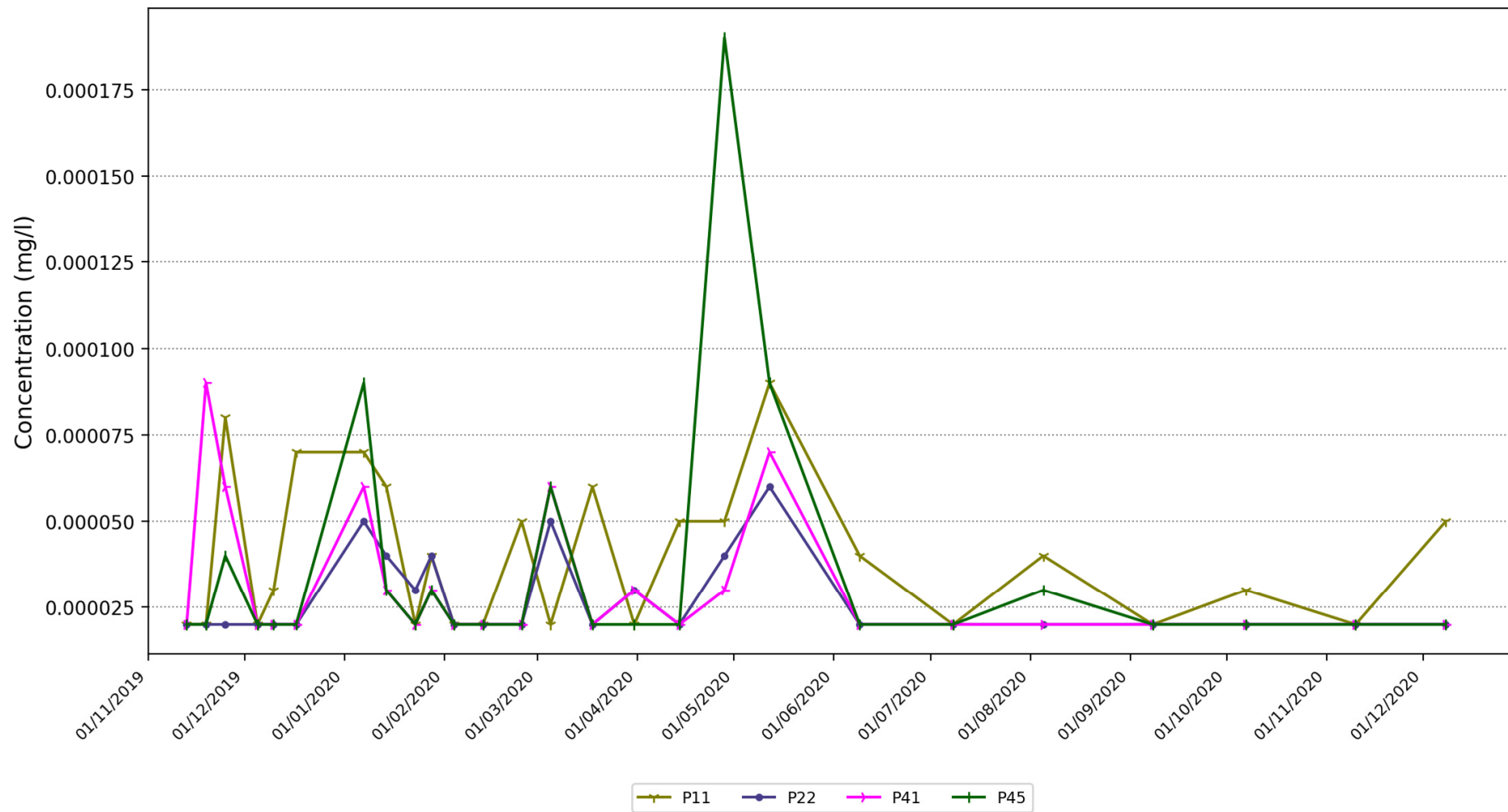
Graph showing the variation in ammoniacal nitrogen at monitoring locations in the vicinity of Willington Lock



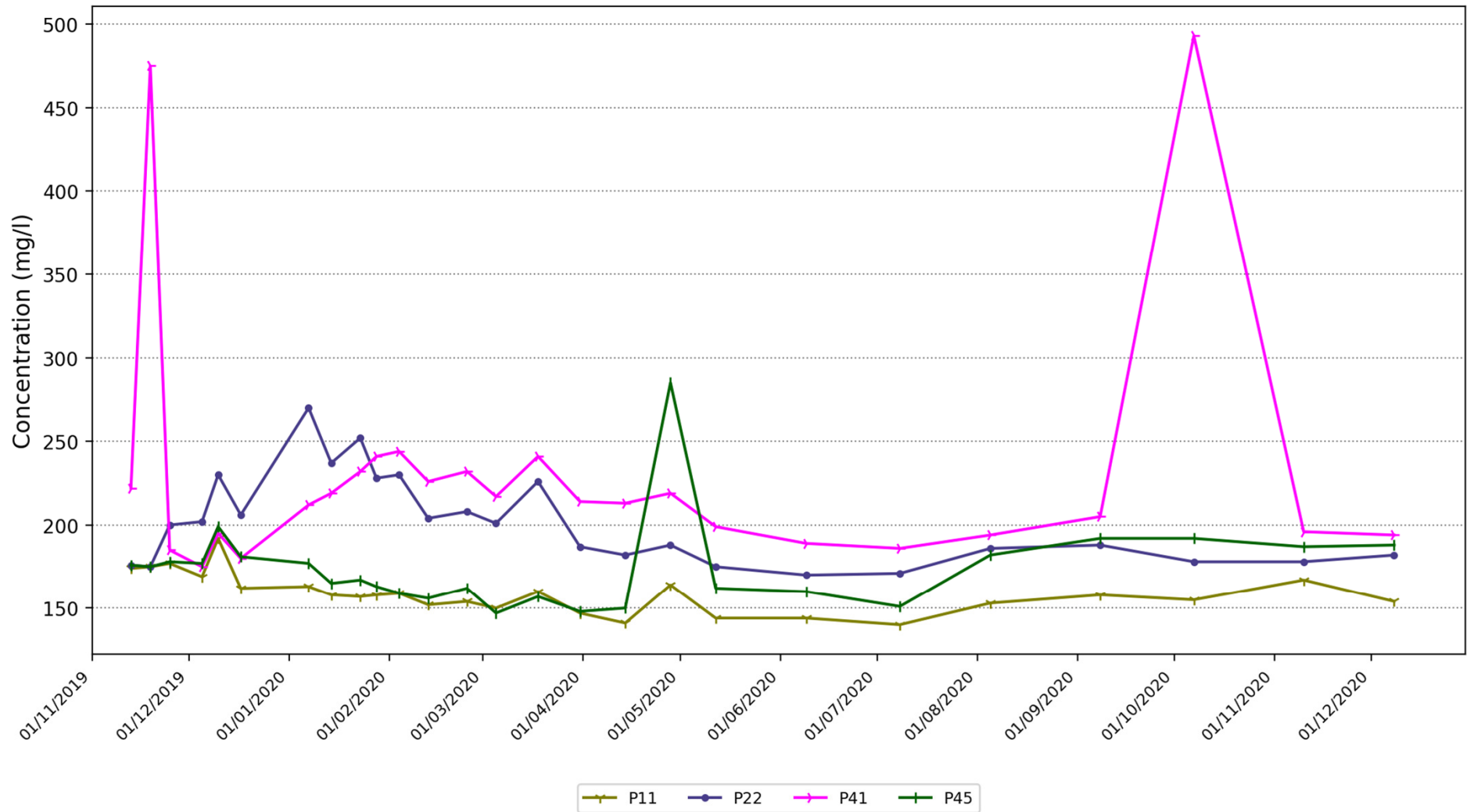
Graph showing the variation in arsenic at monitoring locations in the vicinity of Wellington Lock



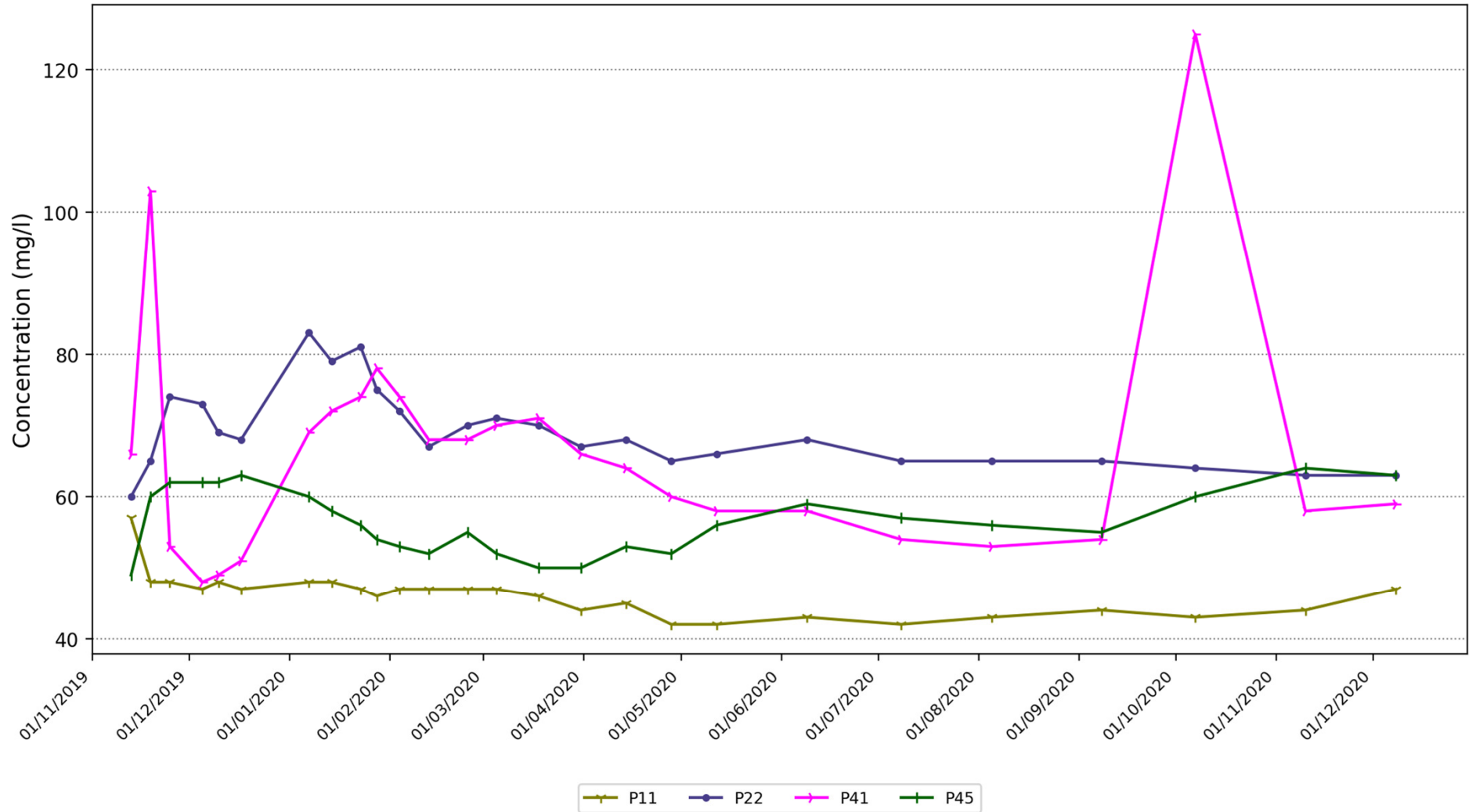
Graph showing the variation in cadmium at monitoring locations in the vicinity of Willington Lock



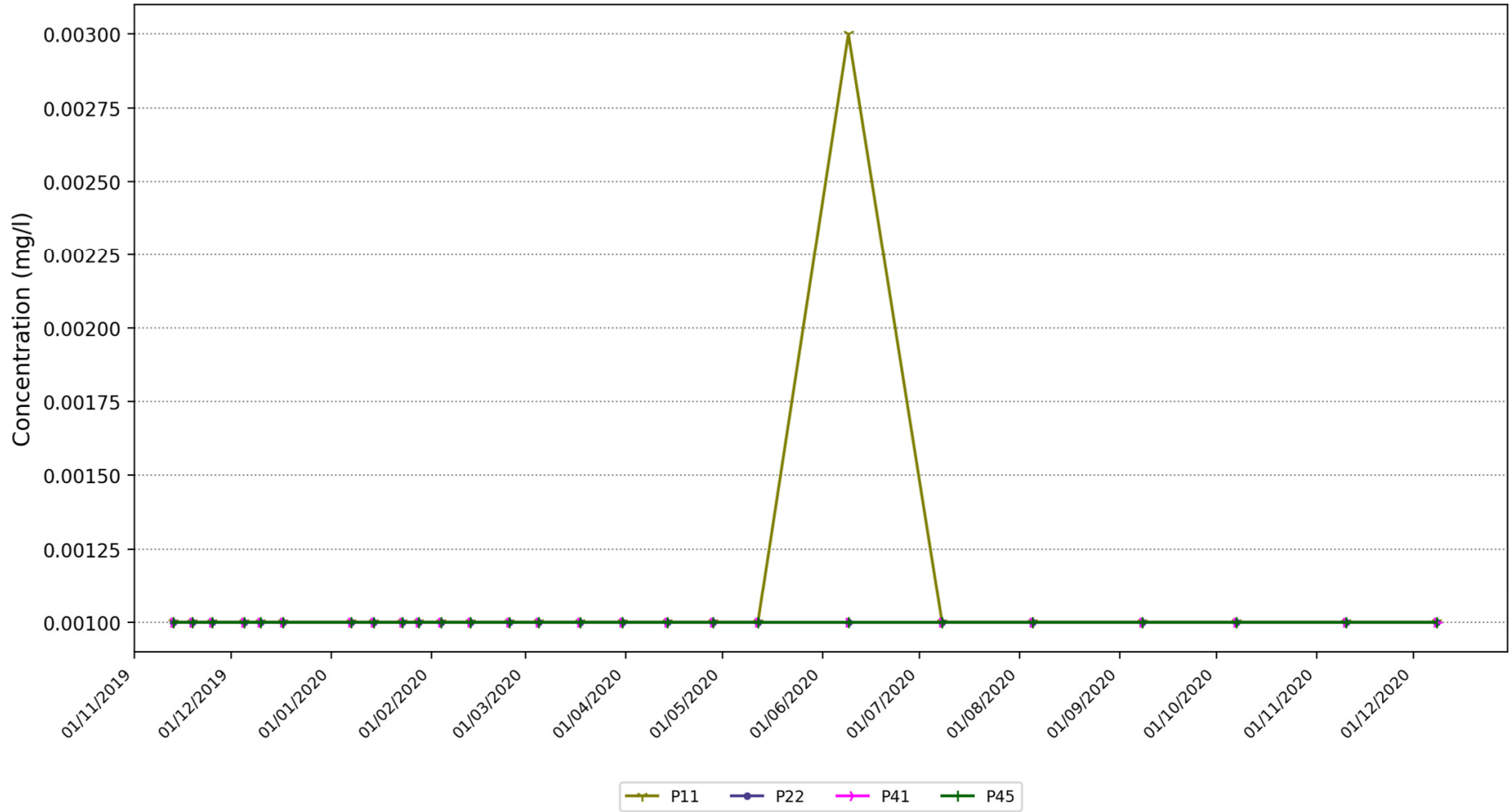
Graph showing the variation in calcium at monitoring locations in the vicinity of Willington Lock



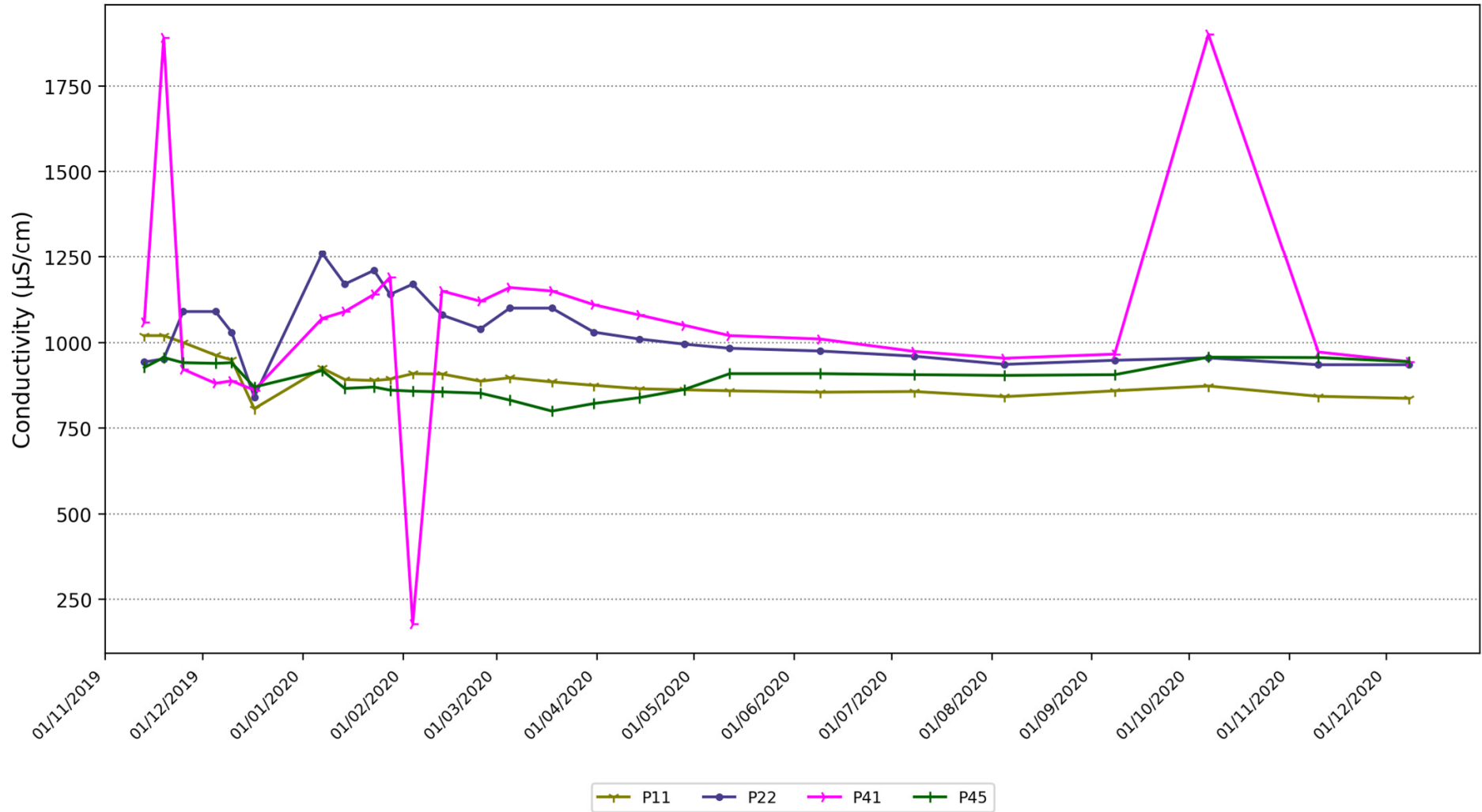
Graph showing the variation in chloride at monitoring locations in the vicinity of Wellington Lock



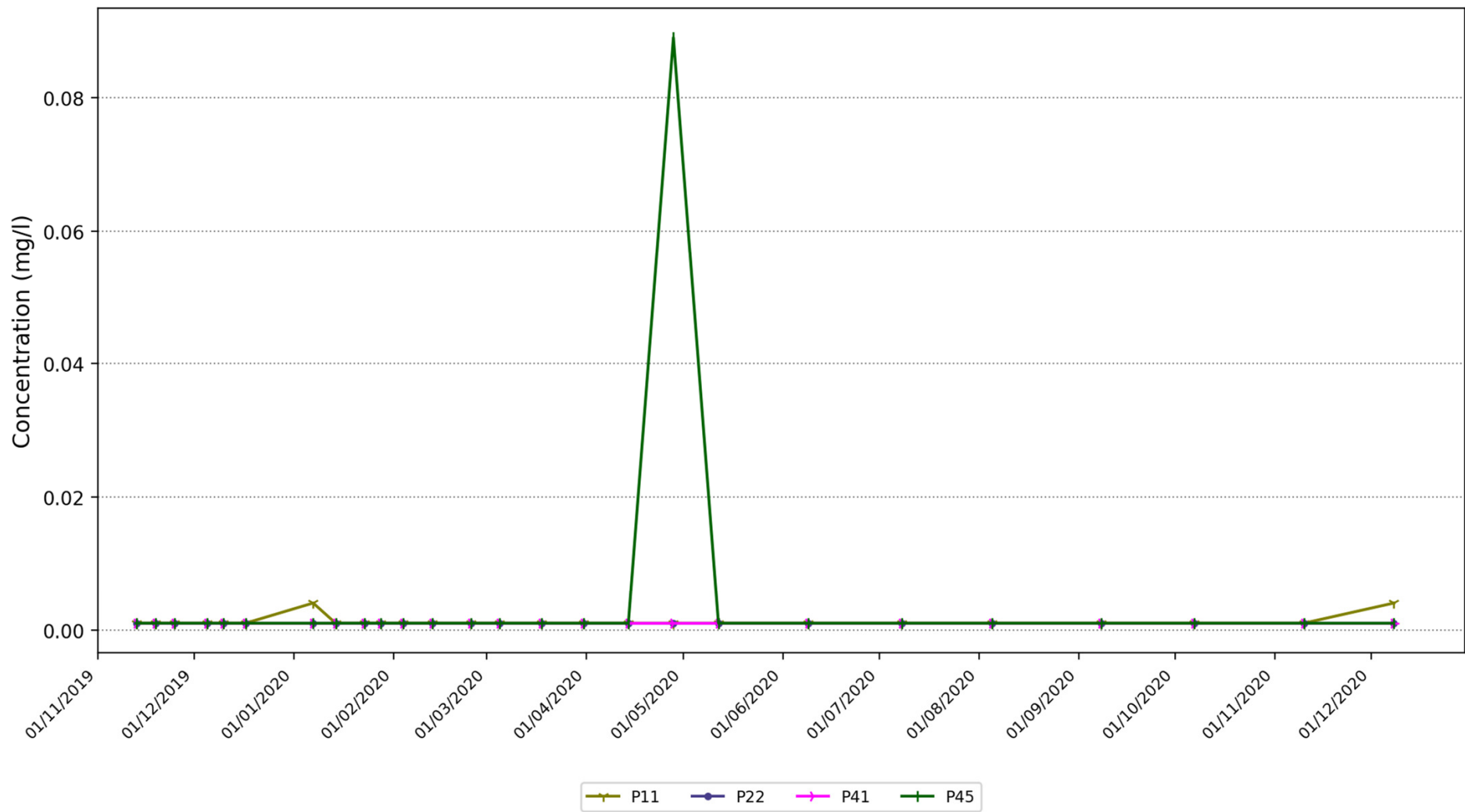
Graph showing the variation in chromium at monitoring locations in the vicinity of Wellington Lock



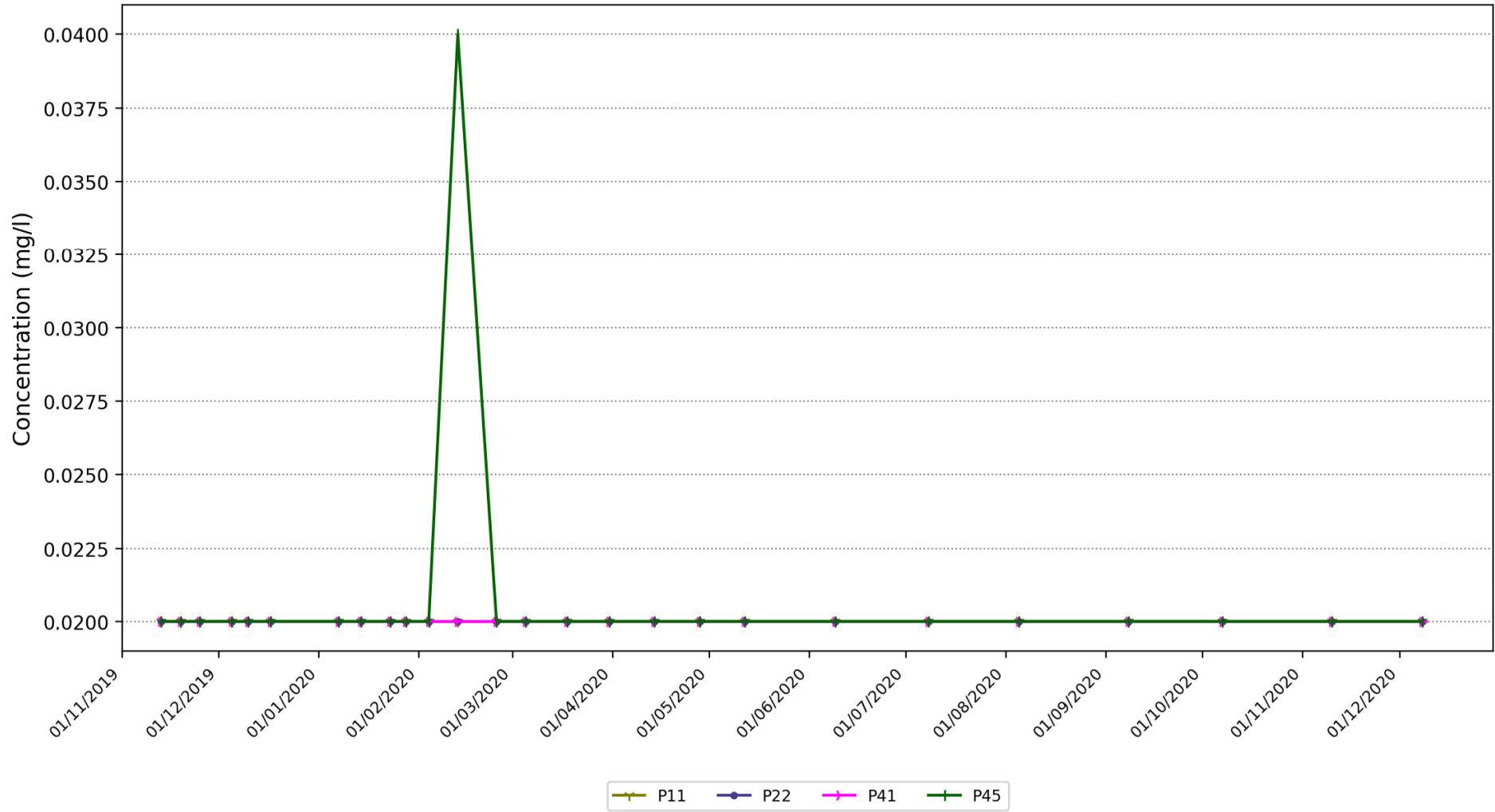
Graph showing the variation in conductivity at monitoring locations in the vicinity of Wellington Lock



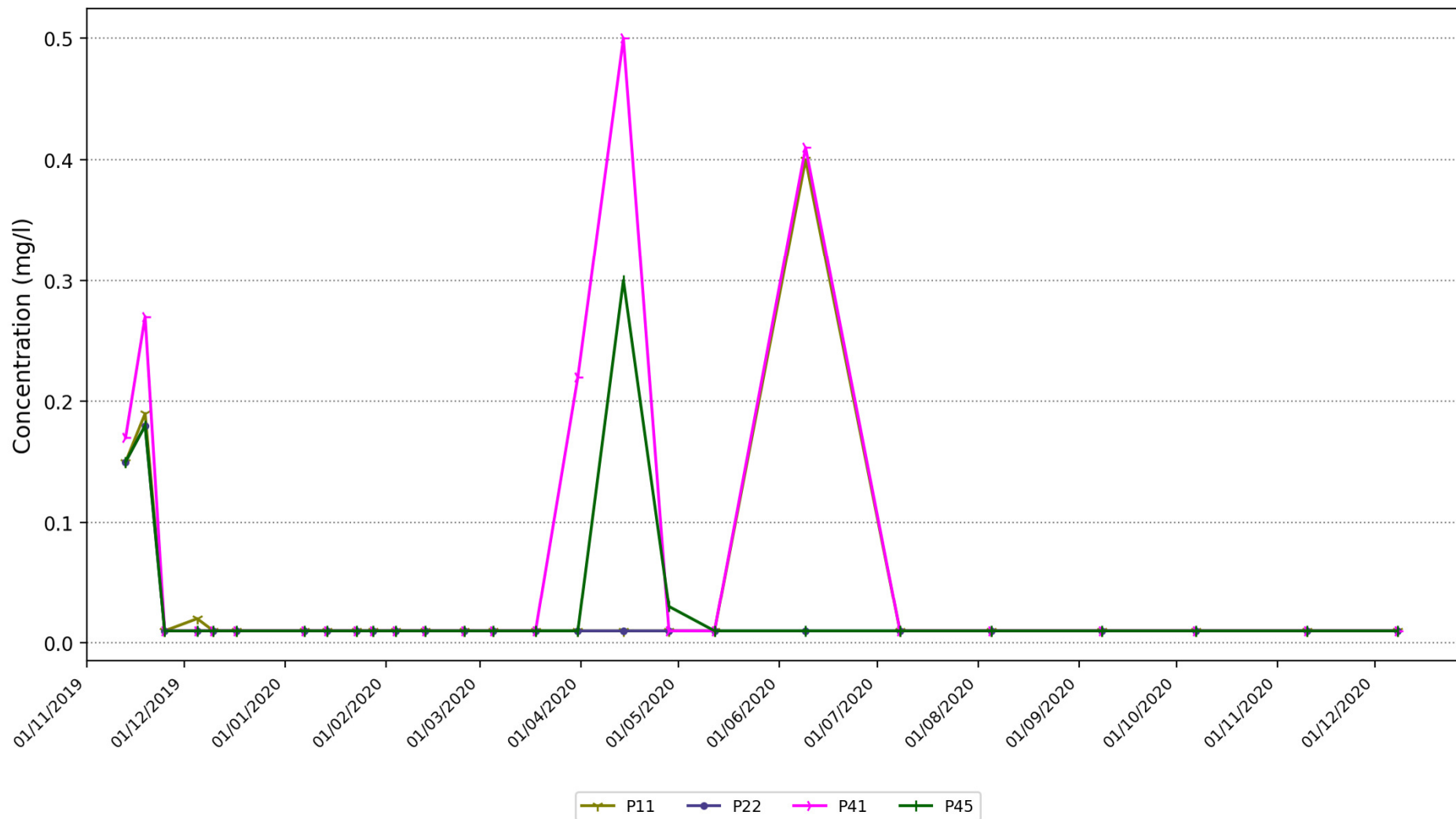
Graph showing the variation in copper at monitoring locations in the vicinity of Willington Lock



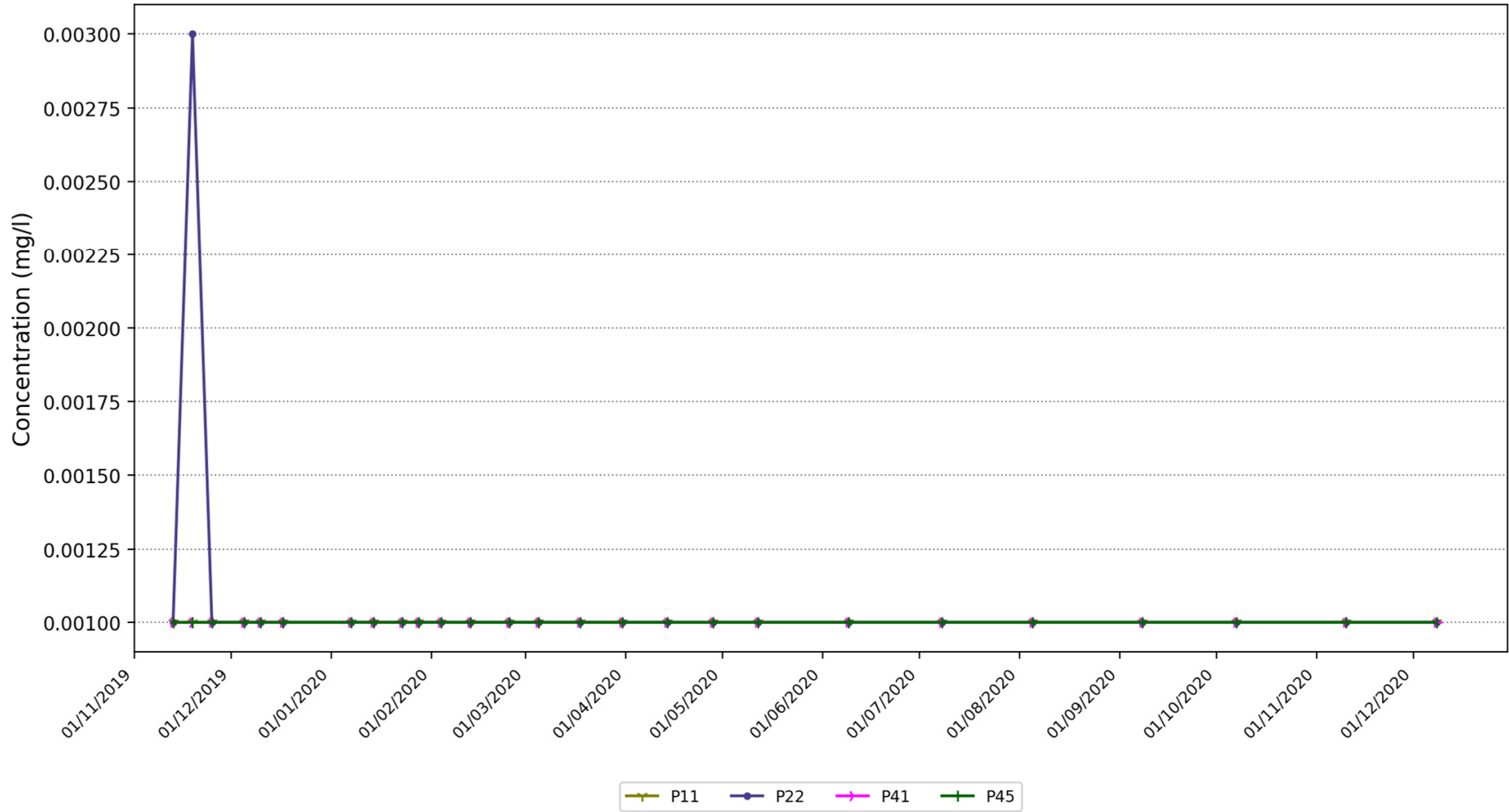
Graph showing the variation in cyanide at monitoring locations in the vicinity of Wellington Lock



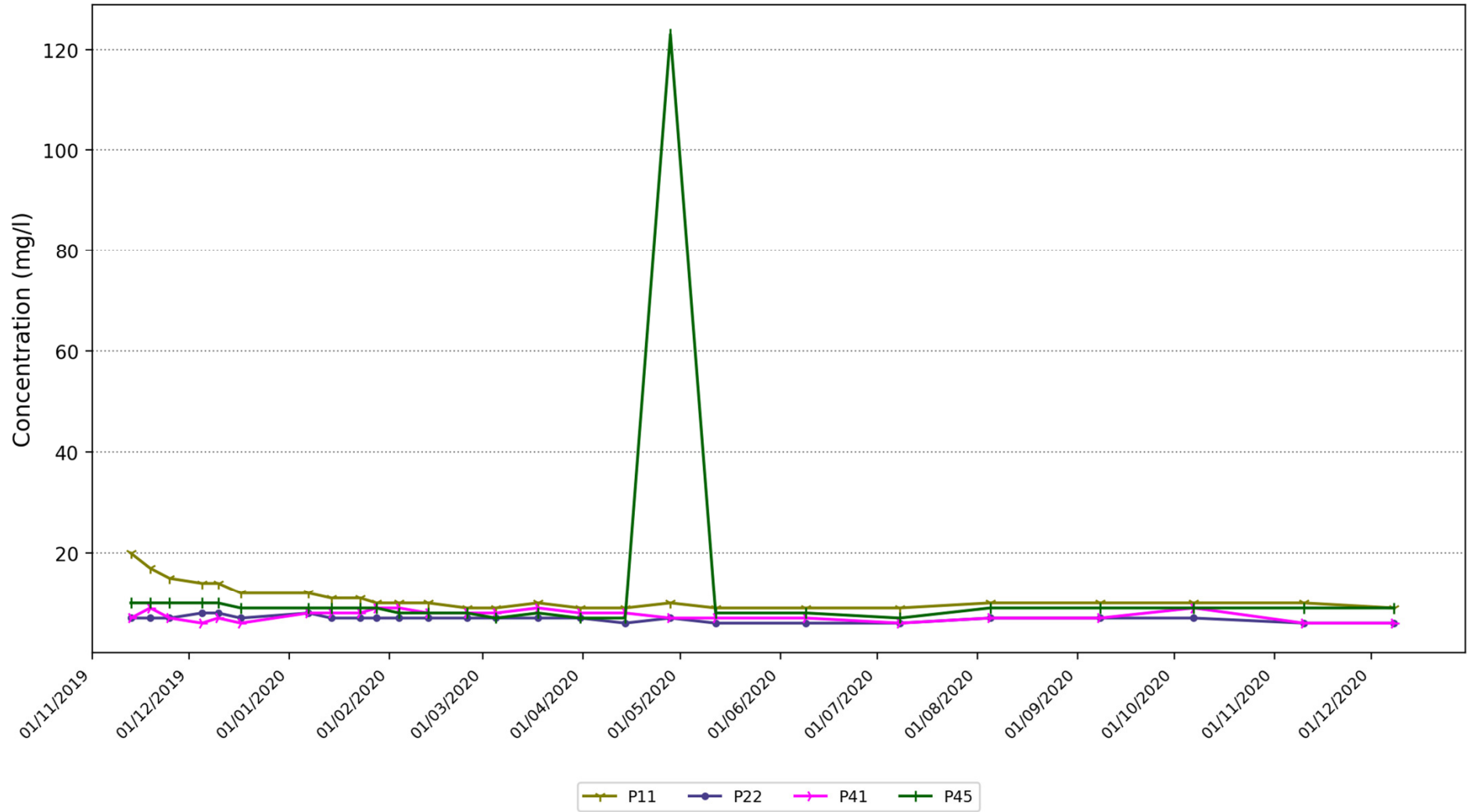
Graph showing the variation in iron at monitoring locations in the vicinity of Willington Lock



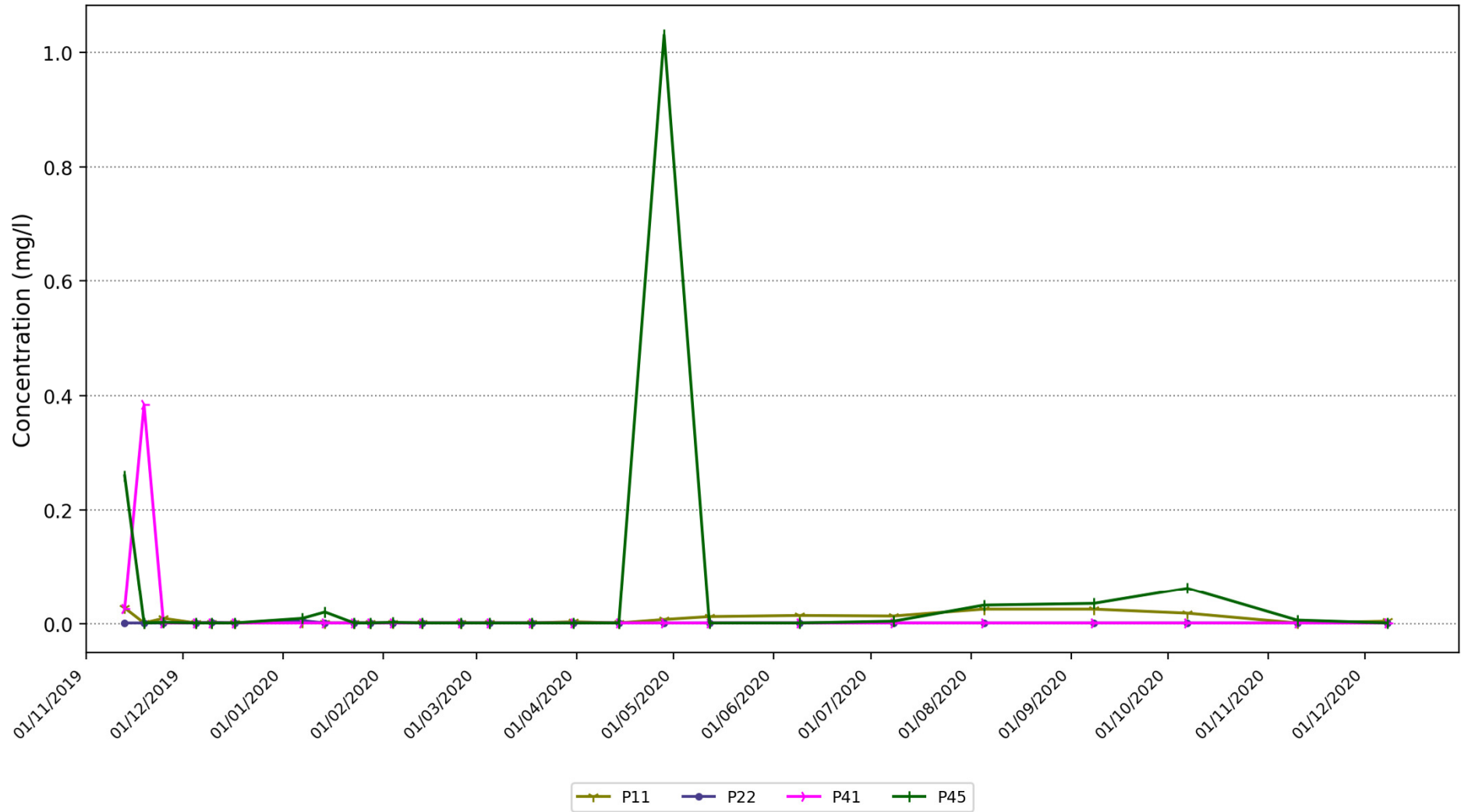
Graph showing the variation in lead at monitoring locations in the vicinity of Wellington Lock



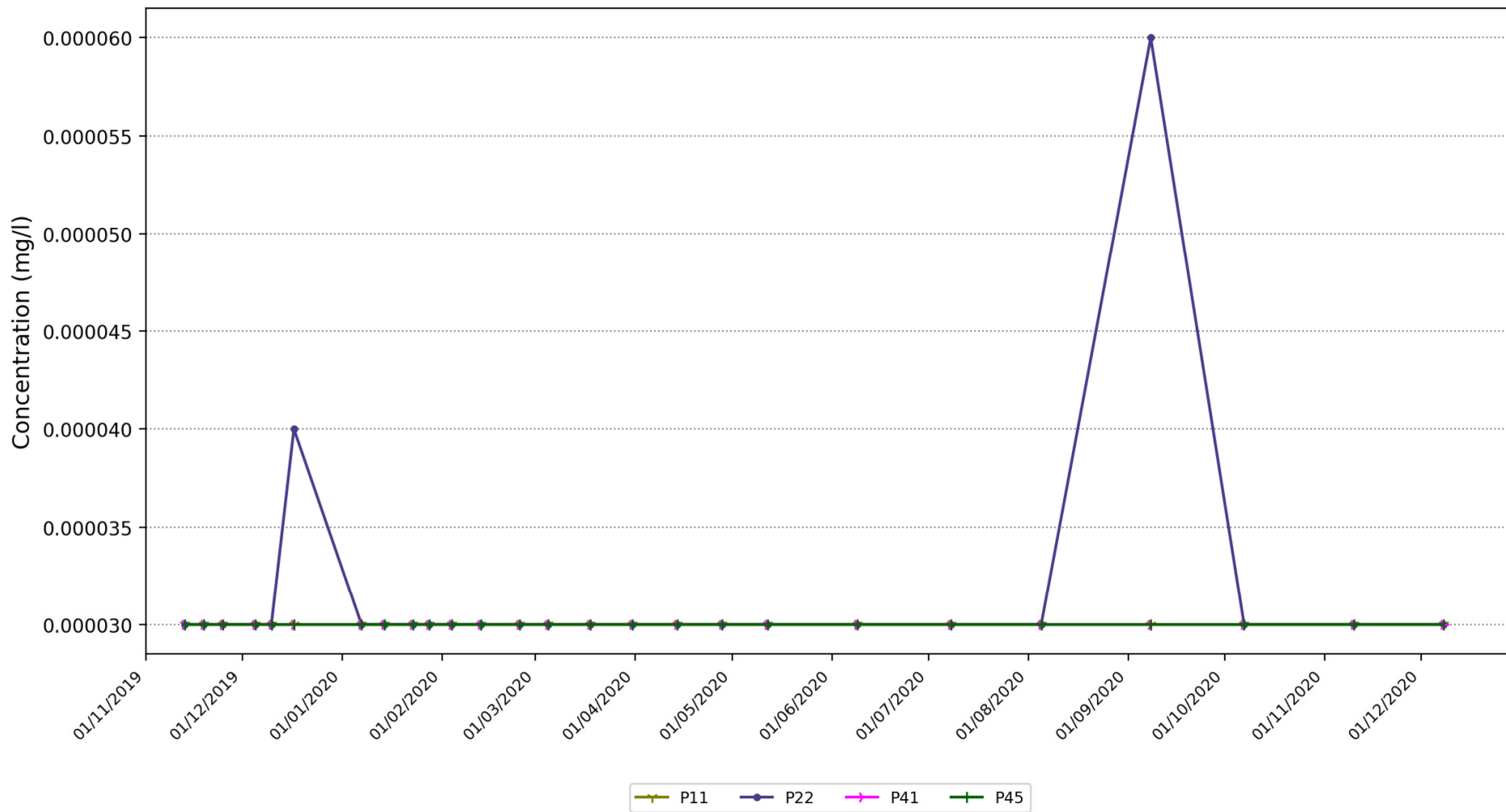
Graph showing the variation in magnesium at monitoring locations in the vicinity of Willington Lock



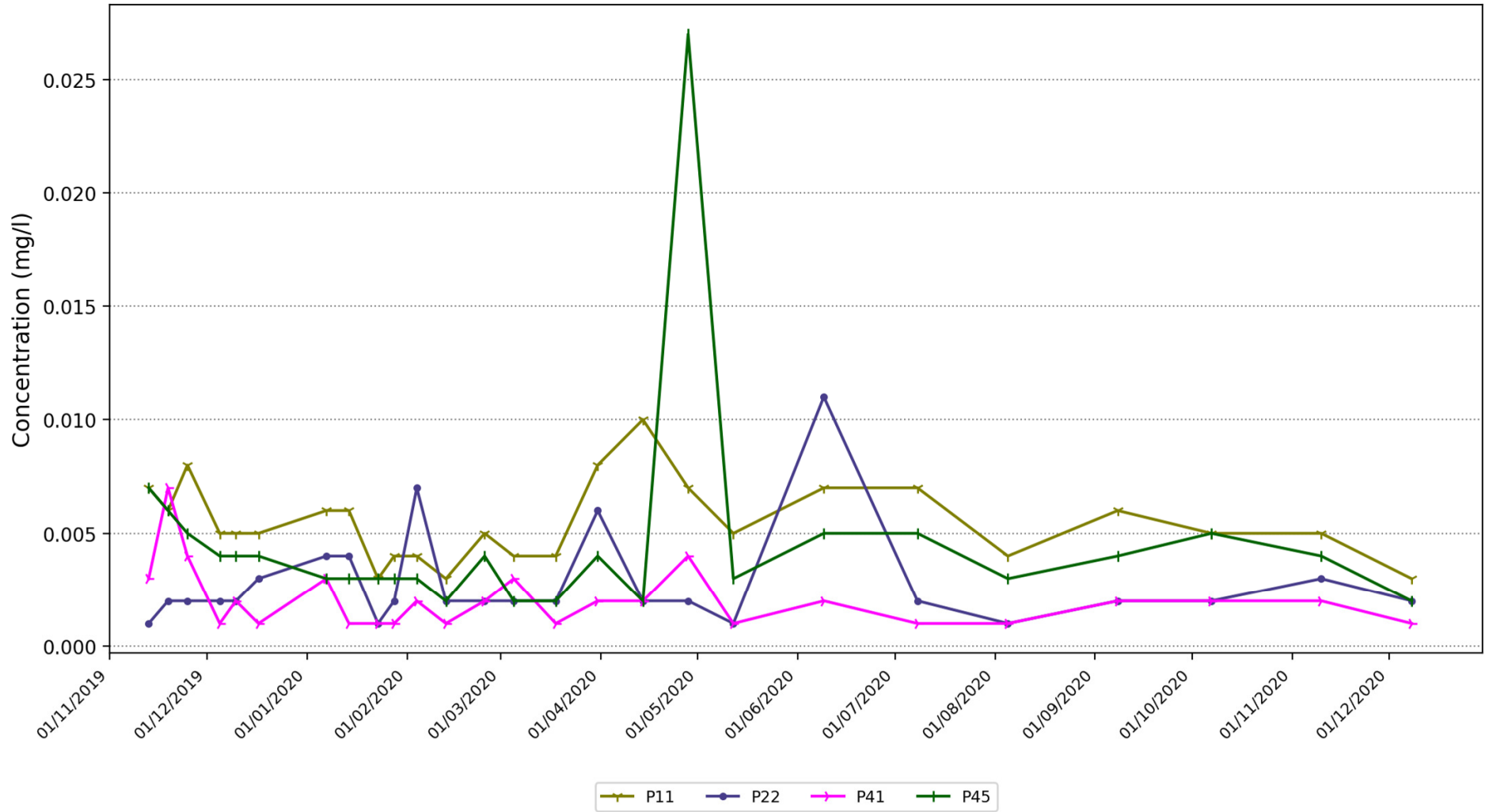
Graph showing the variation in manganese at monitoring locations in the vicinity of Willington Lock



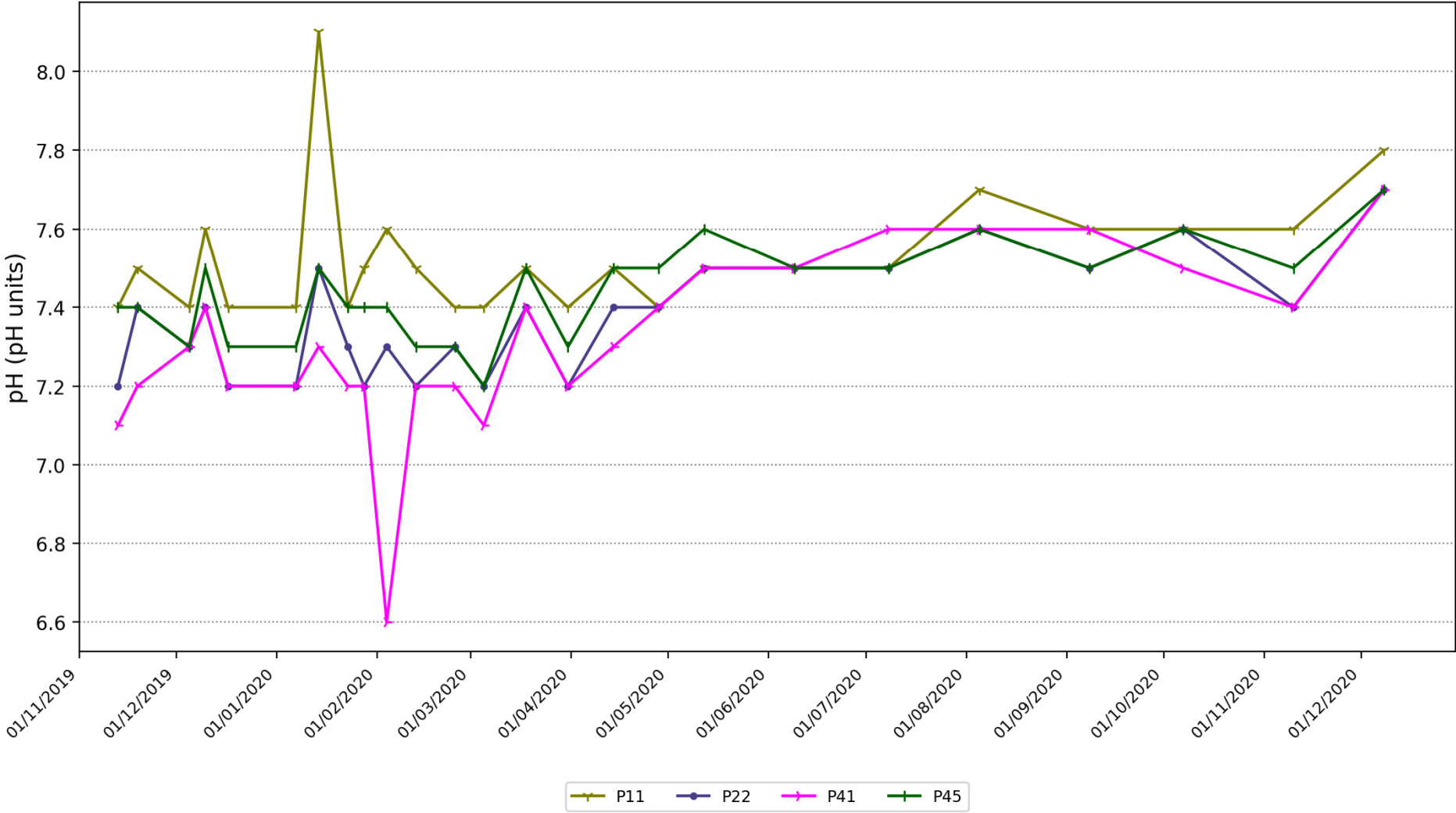
Graph showing the variation in mercury at monitoring locations in the vicinity of Willington Lock



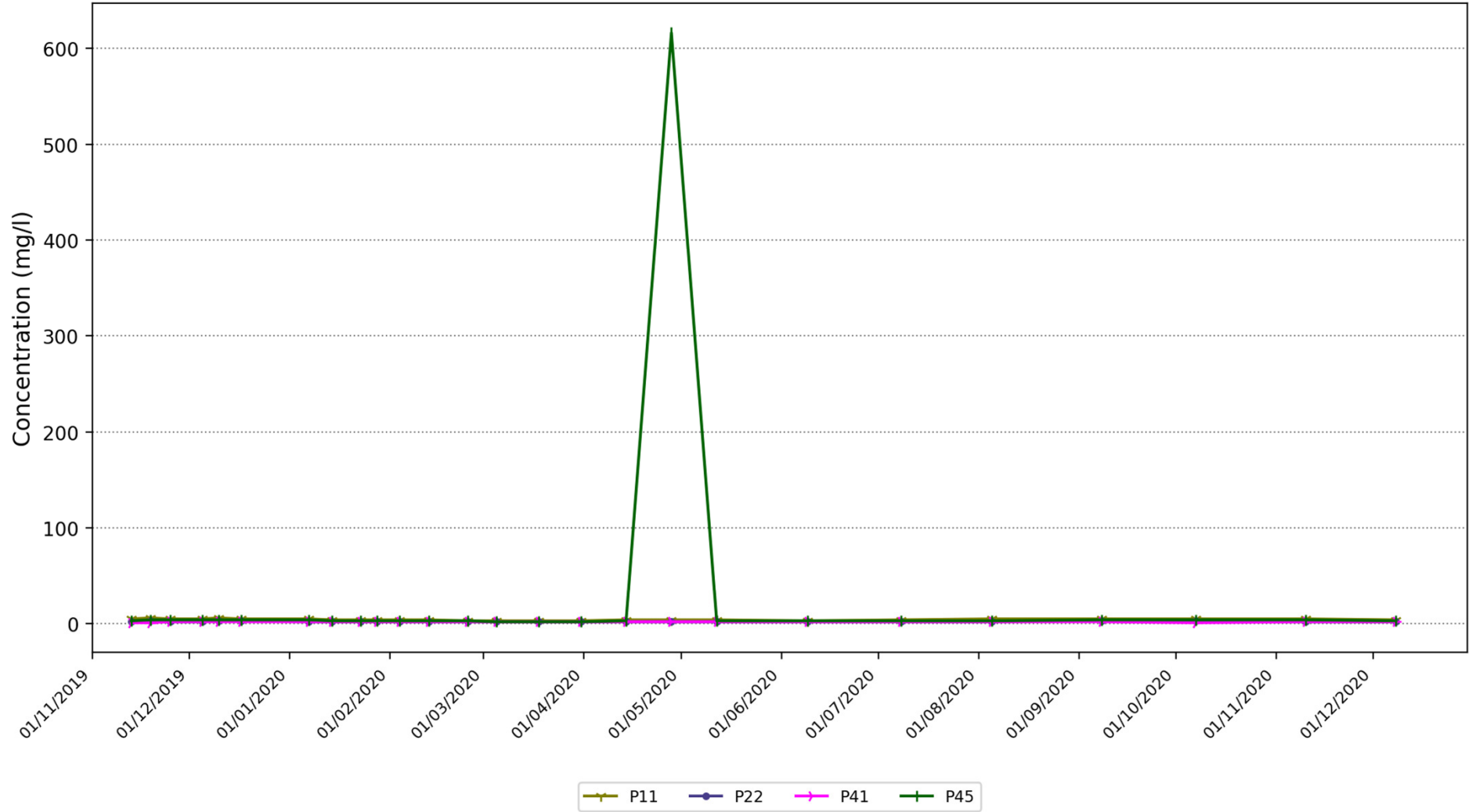
Graph showing the variation in nickel at monitoring locations in the vicinity of Wellington Lock



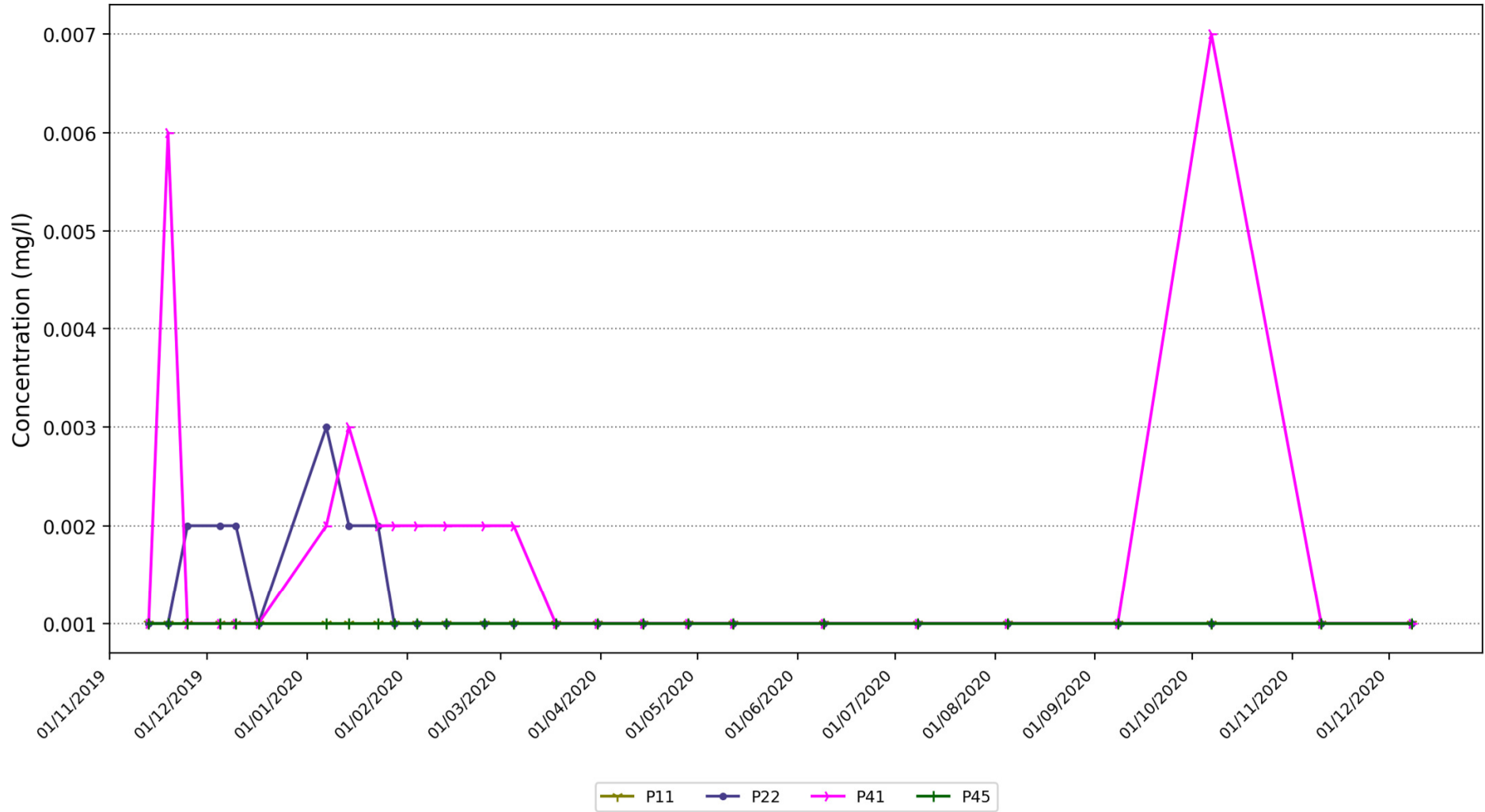
Graph showing the variation in pH (pH units) at monitoring locations in the vicinity of Willington Lock



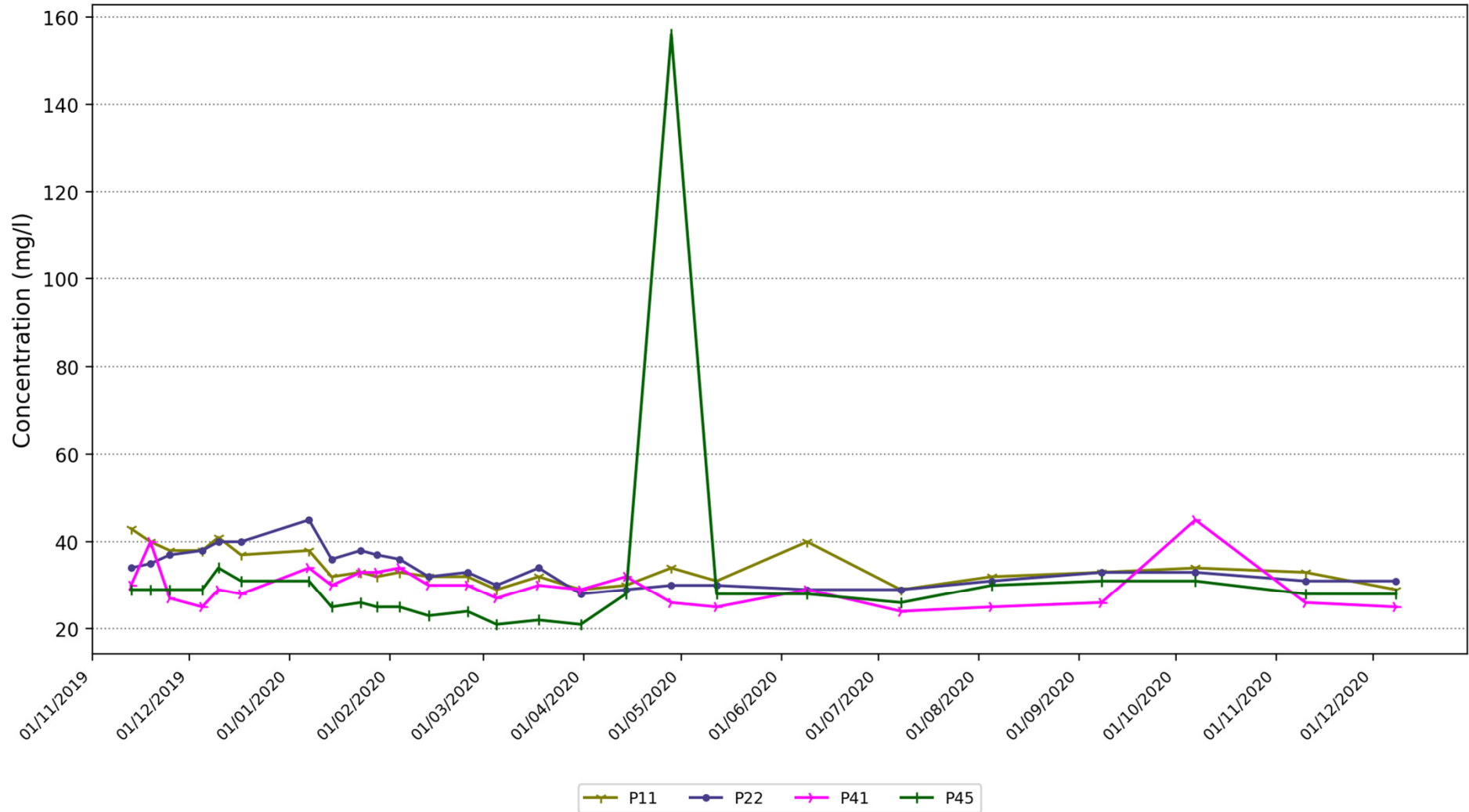
Graph showing the variation in potassium at monitoring locations in the vicinity of Willington Lock



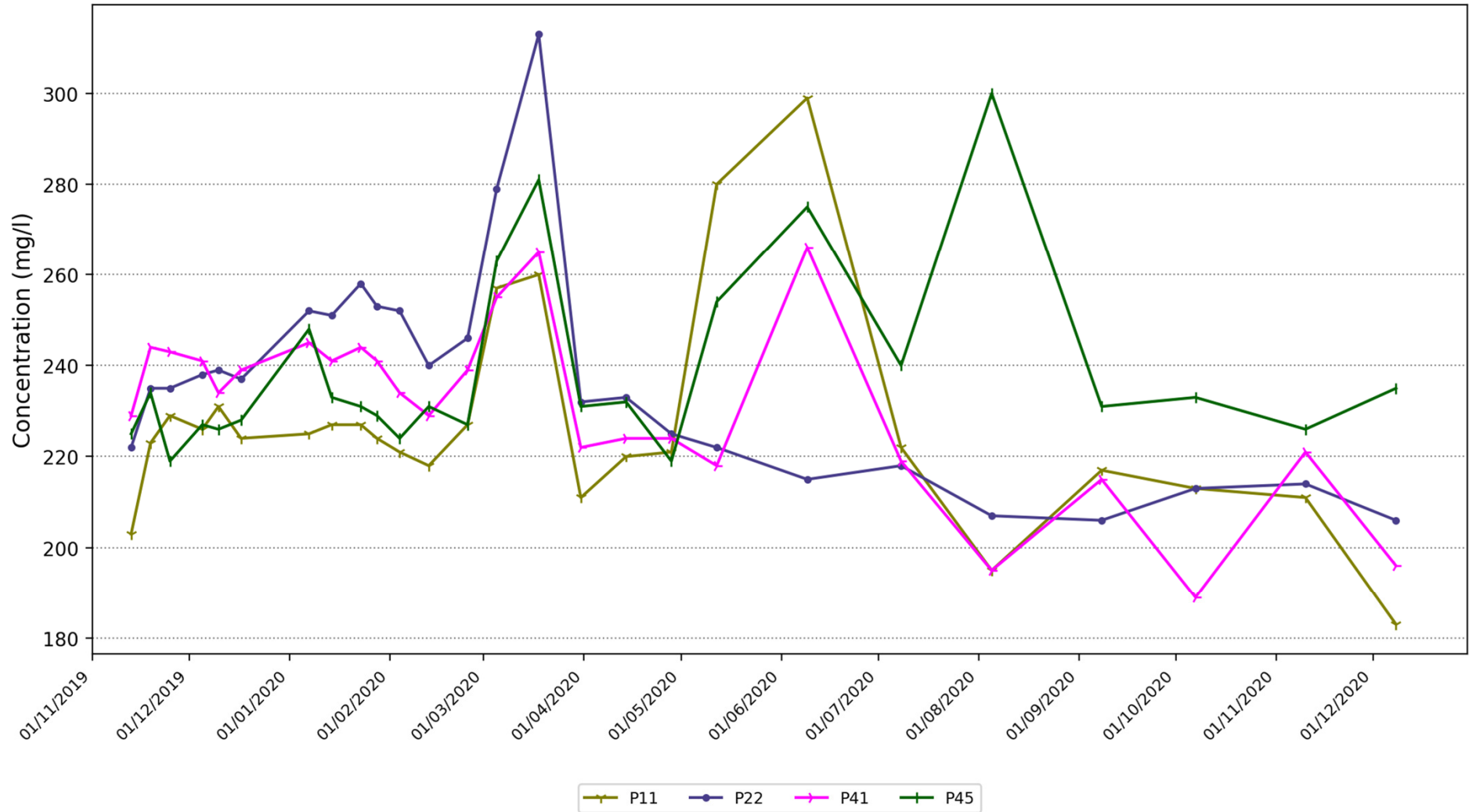
Graph showing the variation in selenium at monitoring locations in the vicinity of Wellington Lock



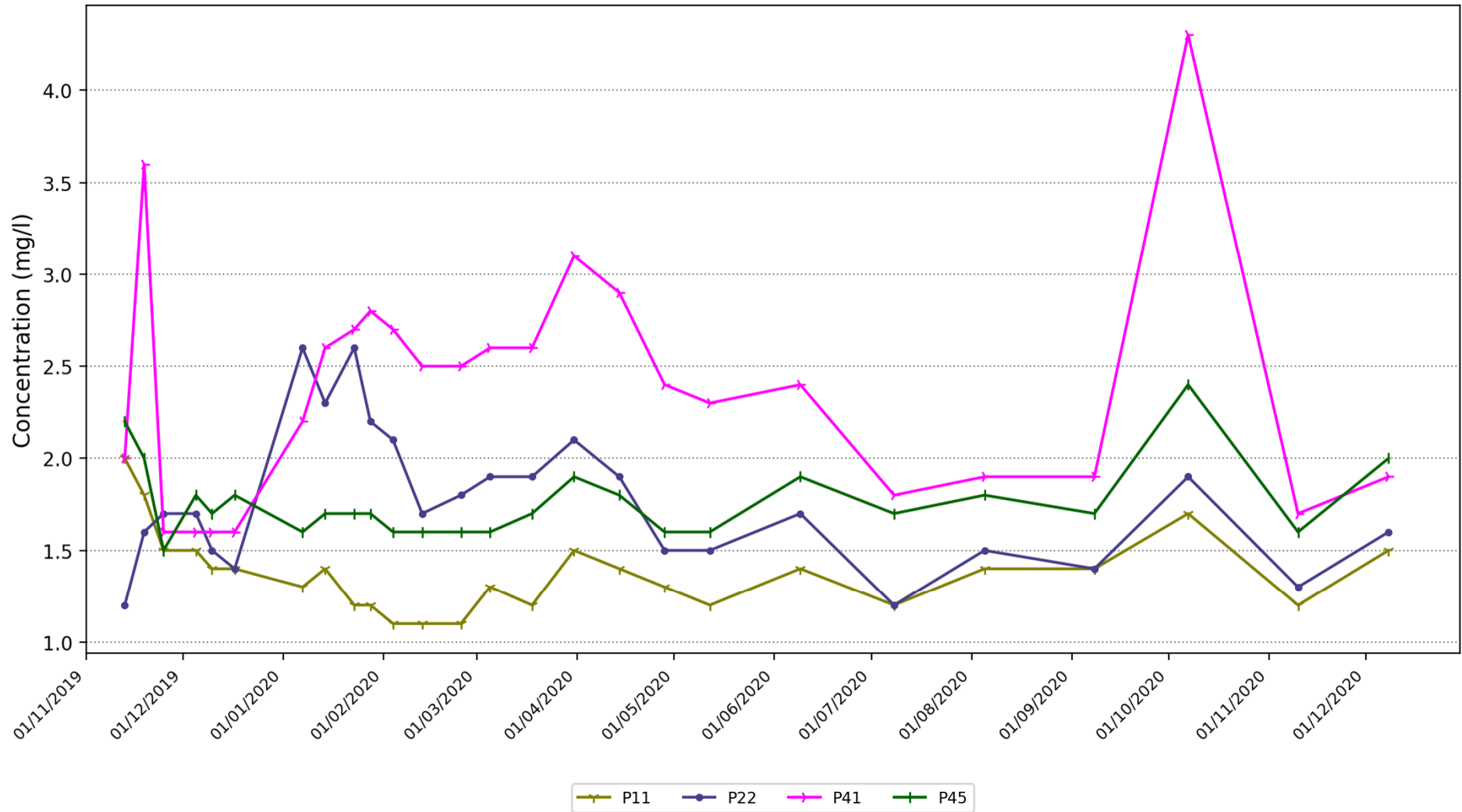
Graph showing the variation in sodium at monitoring locations in the vicinity of Wellington Lock



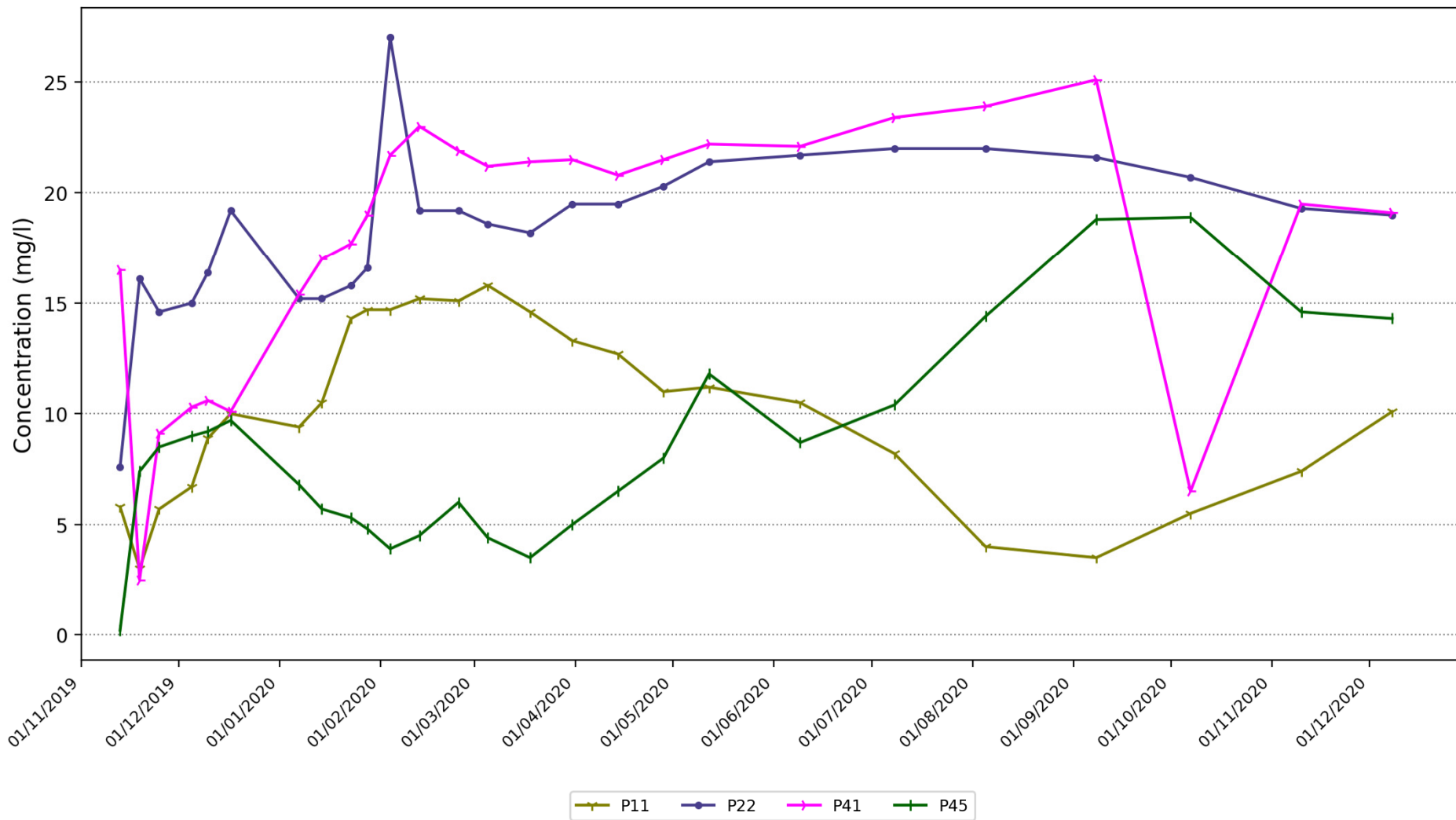
Graph showing the variation in total alkalinity at monitoring locations in the vicinity of Wellington Lock



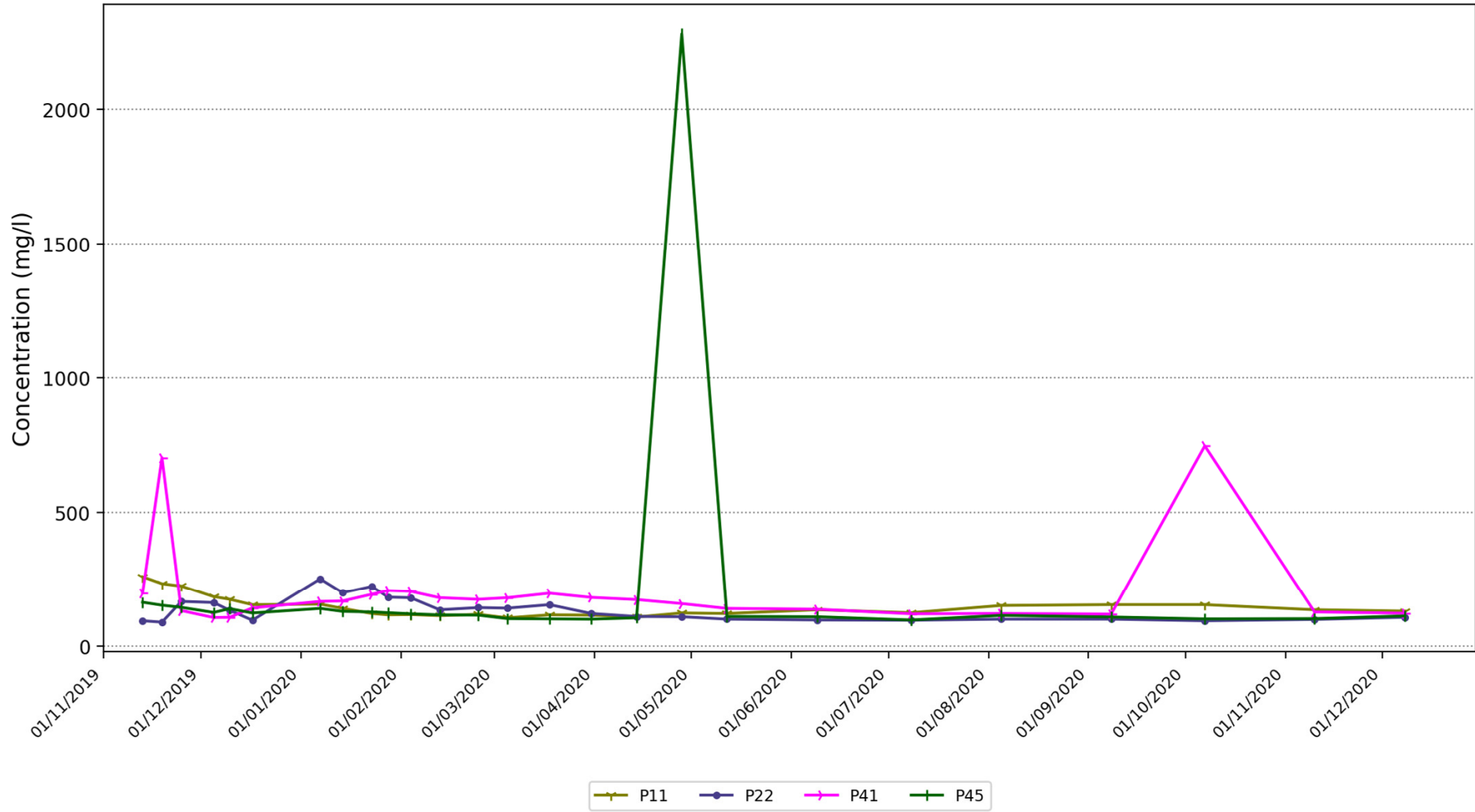
Graph showing the variation in total organic carbon at monitoring locations in the vicinity of Willington Lock



Graph showing the variation in total oxidised nitrogen at monitoring locations in the vicinity of Wellington Lock



Graph showing the variation in total sulphur as SO₄ at monitoring locations in the vicinity of Willington Lock



Graph showing the variation in zinc at monitoring locations in the vicinity of Willington Lock

