

**MAPLE PLACE
CHAMBERLAYNE ROAD
EASTLEIGH**

**FLOOD RISK ASSESSMENT
AND DRAINAGE STRATEGY**



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Document Control Sheet

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Report Title: Flood Risk Assessment and Drainage Strategy

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	Name	Position	Signature	Date
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Approved by:	M Dewson	Director		30.06.23
For and on behalf of Reuby & Stagg Ltd				

Revision	Date	Description	Prepared	Reviewed	Approved

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1.0 INTRODUCTION

This flood risk assessment and drainage strategy has been prepared in support of a planning application to redevelop land at Maple Place, Eastleigh, this report has been prepared in accordance with the National Planning Policy Framework (NPPF), the non-statutory technical standards for sustainable drainage systems as published by DEFRA, together with the specific planning requirements of Hampshire County Council as the LLFA.

The site is located at 237 Chamberlayne Road, Eastleigh, at OS Grid reference 445129, 118430, post code SO50 5HX and has an area of some 0.105ha, the site was previously occupied by commercial buildings which have now been demolished, a topographical survey of the site prior to demolition was undertaken and this can be found in Appendix A.



Fig 1 – Site location plan

The site is bounded by Derby Road to the north, Chamberlayne Road to the East, a residential property to the South, and a laneway to the west.

It is proposed to develop the site as an apartment block, the development is classified as 'more vulnerable' in terms of flood risk according to the NPPF, the planning proposals can be found in Appendix B.

2.0 ASSESSMENT OF FLOOD RISK

The NPPF states that ‘Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk’, the NPPF goes on to state that ‘a site-specific flood risk assessment must demonstrate that the development will be safe for its lifetime taking account the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall’.

The NPPF Technical Guidance classifies degrees for flood risk into zones, these being:

Zone 1 – low probability

Definition

This zone comprises land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).

Appropriate uses

All uses of land are appropriate in this zone.

Flood risk assessment requirements

For development proposals on sites comprising one hectare or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface run-off, should be incorporated in a flood risk assessment. This need only be brief unless the factors above or other local considerations require particular attention.

Policy aims

In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage systems².

² Sustainable drainage systems cover the whole range of sustainable approaches to surface drainage management. They are designed to control surface water runoff close to where it falls and mimic natural drainage as closely as possible.

Zone 2 – medium probability**Definition**

This zone comprises land assessed as having a less than 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year.

Appropriate uses

Essential infrastructure and the water-compatible, less vulnerable and more vulnerable uses, as set out in table 2, are appropriate in this zone. The highly vulnerable uses are *only* appropriate in this zone if the Exception Test is passed.

Flood risk assessment requirements

All development proposals in this zone should be accompanied by a flood risk assessment.

Policy aims

In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage systems.

Zone 3a – high probability**Definition**

This zone comprises land assessed as having a less than 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.

Appropriate uses

The water-compatible and less vulnerable uses of land (table 2) are appropriate in this zone. The highly vulnerable uses should not be permitted in this zone.

The more vulnerable uses and essential infrastructure should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.

Flood risk assessment requirements

All development proposals in this zone should be accompanied by a flood risk assessment.

Policy aims

In this zone, developers and local authorities should seek opportunities to:

- reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage systems;
- relocate existing development to land in zones with a lower probability of flooding; and
- create space for flooding to occur by restoring functional floodplain and flood flow pathways and by identifying, allocating and safeguarding open space for flood storage.

2.1 Fluvial Flood Risk

In order to position the development within the flood zone classification a Flood Screening Report has been obtained from the Landmark Information Group, this can be found in Appendix C, an extract of the Environment Agency's flood mapping has been provided below, this shows the site as falling within Flood Zone 1 and not at risk of flooding, the nearest source of fluvial flooding is the Monks Brook which is some 900m to the west and 5.0m lower in elevation.

The site is therefore classified as falling within Flood Zone 1 according to the NPPF and is not at risk of fluvial or tidal flooding.



Fig 2 – Environment Agency Flood Map

2.2 Flooding from Surface Water (Pluvial)

The JBA and EA/NRW Surface Water flood mapping does not show any risk of surface water flooding up to the 1 in 1000 year event.

Also, from examination of the topographical survey it can be seen that the site is not in a low lying area and surface water ponding will not occur.

The site is therefore not at risk of pluvial flooding.

2.3 Flooding from Ground Water

The mapping shows the site as having no potential for groundwater flooding to occur and to be at negligible risk.

2.4 Flooding from the Sea

The site is some 6km from the River Itchen Estuary and some 10m higher than the extreme tidal flood level, including climate change, is it therefore not at risk of flooding from the sea.

2.5 Summary of Flood Risk

From mapping obtained from the Landmark Group it is evident that the site falls within Flood Zone 1 and is therefore at 'Low Risk' of flooding, the site is also not a risk of tidal, surface water or ground water flooding, according to the NPPF more vulnerable (residential) usage is appropriate in Flood Zone 1, Sequential and Exception Tests are therefore not required.

As quoted previously, the NPPF calls for new development to not increase flood risk elsewhere and, where possible, reduce flood risk overall, this risk relates to the potential for increased surface water runoff and foul water effluent, it is considered in the remainder of this report.

3.0 EXISTING FOUL AND SURFACE WATER DRAINAGE REGIME

From the pre-demolition topographical survey it is evident that the entirety of the site was building/hard standing and that surface water gullies existed that drained these areas into an existing below ground drainage system.

The sewerage undertaker for the area is Southern Water and their records can be found in Appendix D, the records show foul and surface water sewers within the surrounding highway network, it is therefore concluded that the existing site is drained to the public sewer network.

Infiltration testing has been undertaken on the site as part of a Geoenvironmental study, the site is underlain by gravelly clay and the infiltration rate was too slow to record in accordance with BRE365, a projected rate of 1.604×10^{-6} m/s has been provided.

4.0 PROPOSED SURFACE WATER DRAINAGE STRATEGY

4.1 Overall Strategy

The existing site was previously developed and, from the topographical survey, it has been established that the pre-demolition impermeable area was 0.105Ha, it has been established that runoff from the existing site is drained to the existing public sewer network, the surface water discharge rate could have been in the region of 14.5 l/s based on 50mm/hr rainfall depth.

National SuDS guidance advises that as much runoff as possible is retained on site with discharge being made in the following order of hierarchy:

- Infiltration
- Discharge to a surface water body
- Into a surface water sewer
- Into a combined sewer

It has been established that the site is underlain by gravelly clay which has very limited potential for the use of infiltration, as there are no surface water features within the immediate vicinity it is proposed to continue the discharge to the existing public surface water sewer, it is proposed that the pre-development greenfield runoff rates are applied to the development in order to meet national planning policy and current SuDS guidance.

Due to the nature of the development, i.e. a small apartment block with car park, there is no space for landscaped areas, for this reason it is intended to use below ground SuDS rather than open features such as ponds and swales, runoff is to be collected in a traditional gravity pipe network and conveyed to an area of sub surface storage.

The development will have a car park and it is proposed to use permeable materials for this, either permeable asphalt or block paving, or a combination of both, this will provide treatment to runoff from the parking and also provide attenuation with the subbase.

Due the confirmed nature of the site, and the limited opportunity to manage any surface water flooding the below ground drainage system is to be designed so as not to flood for the 1 in 100 year rainfall event plus 40% increase in rainfall intensity (to account for the possible effects of climate change) year event,

In summary, the overall surface water strategy is to continue discharge of surface water runoff to the existing public surface water sewers, however peak flows are to be controlled as close as possible to predevelopment greenfield runoff rates and attenuation is to be provided within below ground storage and permeable paving, treatment of runoff from parking areas will also be provided by the permeable paving, and the system is to be designed to include an allowance for climate change.

4.2 Detailed Surface Water Drainage Design

It is an aim of national guidance that runoff from new development is restricted to pre-development greenfield runoff rates, the Microdrainage Windes software has been used to calculate these rates using the ICP SuDS Method and the rates are tabulated below,

Return Period	GFRR
1 yr	0.5 l/s
Q Bar (approx 2 yr)	0.5 l/s
30 yr	1.2 l/s
100 yr	1.7 l/s

Table 1 – ICP SuDS Greenfield Runoff Rates

It can be seen that the 1 in 1 year results are very low and it would be impracticable to restrict flows down to these rates without serious risk of blockage, it is therefore proposed that a minimum diameter of 50mm is used for the flow control in order to minimise this risk.

Cellular storage will be located within the car park area and will be sized to contain the 1 in 100 year + 40% event without flooding, access points to the cellular storage will be provided to facilitate future maintenance and also reduce the risk of blockage.

The control will be a simple orifice plate fixed to the inside of the final outlet chamber, the orifice is to be protected by using a 'downstream defender' type device immediately upstream of the control, the permeable paving will also ensure that runoff from the car park is well filtered prior to reaching the small orifice.

The system has been modelled using the Microdrainage Windes software and the results can be found in Appendix E, it can be seen that the 1/2 year (Qbar) discharge rate will be 2.1l/s and the 1/100 year discharge rate will be 4.4l/s, it is viewed as being impractical to reduce this rate any lower without significant ongoing issues due to blockage of the flow control.

It should also be noted that, although off site discharge is to be restricted as low as practical, the existing site pre-demolition was entirely hard paved and drained to the public sewer un-attenuated, the flow could have been as high as 14.5l/s for a 50 mm/hr rainfall event, therefore flows will be reduced by some 70% by virtue of the new development which should be viewed as a significant reduction in flood risk.

In order to apply the precautionary approach, the system has been modelled without infiltration, however some infiltration is likely within the underlying gravelly clay, this will reduce the runoff volume, especially during the low order return period events.

The surface water drainage and SuDS proposals are shown on the plan contained in appendix F, the design exceedance flow paths are also shown.

5.0 PROPOSED FOUL WATER DRAINAGE

It is proposed to discharge foul water effluent from the new development into the existing foul water drains on the site and re-use the existing lateral connections.

The new apartments could result in an increase of flows to public foul sewer systems, however we are not aware of any capacity issues.

It should be noted that Ofwat have introduced new charging rules which require sewerage undertakers to provide the necessary capacity for new developments, any off-site reinforcement works required to provide increased capacity are now funded by increased infrastructure charges.

The onsite drainage will be a traditional gravity system discharging to the aforementioned existing lateral connections if suitable, the proposed foul drainage layout is shown on the plan contained in Appendix F.

6.0 DRAINAGE MAINTENANCE AND MANAGEMENT PLAN

The following table sets out the maintenance regime specific to each element of the drainage system, this regime should be followed through the lifetime of the development to ensure proper functioning of the system and limit the risk of flooding due to poor operation:

Drainage Element	Inspection/Maintenance	Frequency	Remedial Action	Responsible Party
Roof Drainage	Clean gutters and downpipes	Annually	Repair as necessary.	Management Company
Below ground drainage runs and chambers	CCTV drain runs and jet wash.	Every 5 years	Repair as necessary	Management Company
	Inspect chambers for debris	Annually	Remove debris and sediment as required.	
Road gullies/ Drainage Channels	Inspect units for debris	Monthly for 1 st year of operation and then annually thereafter	Remove debris and sediment as required.	Management Company
Orifice Control	Inspect for build-up of debris/leaf litter etc.	End of winter, mid-summer and end of autumn	Remove debris and sediment as required	Management Company
Cellular Storage	Inspect for build-up of debris/leaf litter etc	End of winter, mid-summer and end of autumn	Remove debris and sediment as required	Management Company

7.0 RESIDUAL RISK

The new development could increase surface water flood risk if not managed appropriately, the measures set out in this report should mitigate this risk however there remains a residual risk of design exceedance or blockage etc.

In order to ensure that there is no risk of property damage, or to the health of the occupiers, the external ground and finished floor levels should be carefully considered during the design stage such that any overland flows are routed away from buildings to areas that can accommodate them.

With these measures in place the residual risk for surface water flooding will be mitigated.

8.0 SUMMARY AND CONCLUSIONS

It is proposed to re-develop the Maple Place site as a residential apartment block (more vulnerable usage), this flood risk assessment has established that the site is classified as falling within Flood Zone 1, it is not currently at risk of flooding and therefore suitable for the usage according to the NPPF.

The development could increase flood risk due to increased surface water run-off, this strategy has therefore been prepared in order to demonstrate that any increase in flood risk can be mitigated to ensure that there is limited off site impact and that development remains sustainable throughout its lifetime.

The National Planning Policy Framework and its supporting guidance have been referred to, the HCC LLFA guidance and Non-Technical Standards for SuDS have been used to derive the optimum surface water drainage strategy.

From intrusive ground investigation it has been established that the site is underlain by gravelly clay that would offer poor soakage potential therefore the existing discharge to the public storm sewers is to be continued.

Surface water discharge rates are to be controlled as close as practical to pre-development greenfield runoff rates, this will be 2.1 l/s for the Q_{BAR} event and 4.4 l/s for the 1/100 year event, with a 50mm diameter flow control being applied as the absolute minimum to safeguard against the risk of blockage, these figures represent a reduction of 70% in runoff rate for a 50mm/hr event (approx 1/100yr).

An allowance of 40% increase in rainfall intensity has been made within the attenuation design calculations to mitigate against the uncertainties of climate change.

Flow control is to be provided by a simple orifice plate, with a 'downstream defender' type device to protect against blockage, attenuation to be provided by a combination of permeable paving and below ground cellular storage.

A SuDS maintenance strategy has been included which gives guidance on the operation, frequency and responsibilities for maintaining the drainage systems.

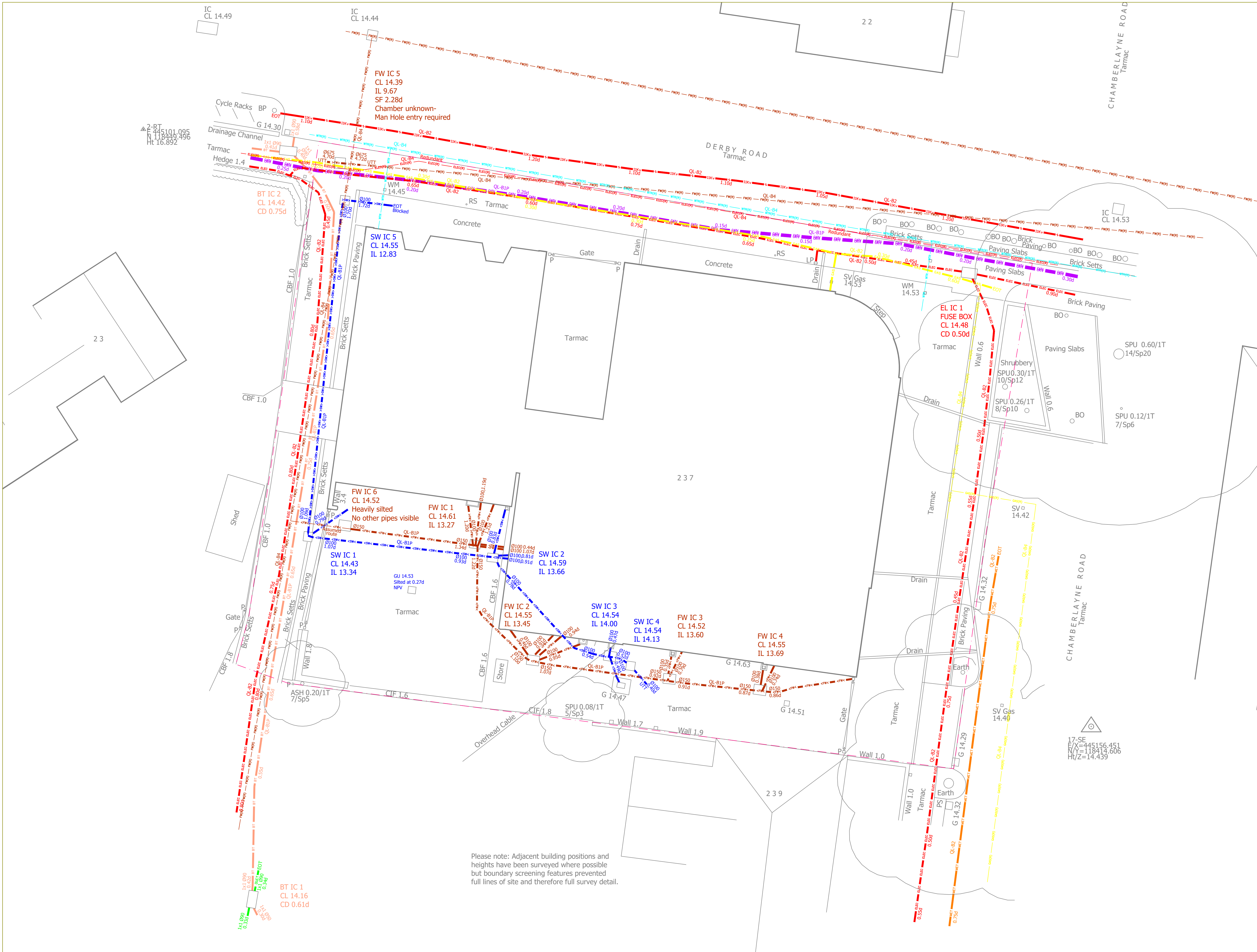
Surface water ponding has been identified as being a potential source of residual risk, from either design exceedance or blockage, therefore the proposed development levels are to be 'flood routed' to ensure that any overland flows are managed safely.

It is proposed to discharge foul water effluent from the new development into the existing public sewers surrounding the site, Southern Water will be obliged to provide capacity for the new development under the new Ofwat charging rules.

The Hampshire County Council Surface Water Checklist has been completed and this can be found in appendix G.

It is concluded that the development at Maple Place is not at risk of flooding, and through the implementation of identified mitigation measures will not increase flood risk elsewhere, the development therefore complies with the requirements of the NPPF and local planning policy.

Appendix A - Topographical Survey



NOTES:

- The base topographical survey has been supplied by Encompass Surveys.
- A number of technologies were used to obtain the information shown on this drawing. Varying ground conditions can affect the performance of these systems, therefore 100% detection is not guaranteed. Always Exercise Caution When Excavating.
- Thin line types represent assumed utility positions (as annotated).
- Where electric & metallic services are illustrated on this drawing as a single utility line, these may represent multiple pipes/cables.
- Possible radar targets show the position of suspected underground linear features, these features have produced an inconsistent response to the radar.
- It is not always possible to differentiate between construction features and pipes, it is therefore possible that some of the features shown are not pipes or cables.
- Every care has been taken to ensure the correct identification of the utility types, however these should be independently verified prior to use in any design/building works.
- All pipe diameters and levels are assumed to be correct, however due to non entry to inspection chambers, these should be verified before any works commence.
- Depths shown with the suffix (RD) have been measured using radio frequency locators and are to the centre of pipes/cables. Depths shown with the suffix (S) have been measured to a radio frequency sewer sonde and are to the invert of pipes. Therefore these depths are indicative only.
- All utility depths are in metres unless otherwise stated.
- All pipe/duct sizes are in millimetres unless otherwise stated.
- Information provided should not be altered or modified in any way. It should not be used for any purpose other than for which it was intended and should not be issued to other parties without prior agreement of Encompass Surveys.
- Encompass Surveys cannot accept any responsibility for any damage to computer systems which may result from viruses which may be contained in the data provided.
- If the Autocad drawing is being read by any system other than Autocad it should be checked against a hard copy. Encompass Surveys cannot accept liability for omissions.
- Scale indicated is only applicable when plotted at sheet size.

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LINE-TYPE KEY

Electricity	British Telecom
Water	Gas
Foul Water	Storm Water
Metallic	Telecom
Empty Duct	Mercury Comms
Fibre Optics	Earth Stops
Virgin Media	Cable TV
Low Voltage	11kV High Voltage
23kV High Voltage	Electricity Records
Gas Records	Foul Water Records
Water Records	Strong Radar Target
Weak Radar Target	

GPR Detected Anomaly
GPR Detected Reinforcing
Extents of Chamber
Scan Area
Unable to Scan Area

ABBREVIATIONS

AV Air Valve	IRS Illuminated Road Sign
BB Bellisha Beacon	LP Lamp Post
BCD Bottom of Chamber Depth	MH Manhole
BH Borehole	MM Marker
BL Basement Light	MMW Monitoring Well
BM Bench Mark	P Post
BO Borehole	PE Polyethylene
BS Bus Stop	RE Rodding Eye
BT British Telecom Cover	RG Rain Gully
CAB Cabinet	RS Road Sign
CATV Cable Television Cover	SF Soffit
CCTV Closed Circuit TV	SI Spun Iron
CD Chamber Depth	SP Sign Post
CL Cover Level	ST Steel
CO Concrete (Pre-Cast)	STN Survey Station
D Down Pipe	SWCP Surface Water Catch Pit
EB Electricity Junction Box	SWSA Surface Water Soak Away
EOT End Of Trace	SW Surface Water
EP Electricity Pole	TCS Telephone Call Box
FB Flower Bed	TCD Top of Chamber Depth
FL Flood Light	TL Traffic Light
FW Foul Water	TLCB Traffic Light Control Box
FMP Foul Water Pipe	UTL Unable To Lift
GI Gas Pipe	UTT Unable To Trace
GV Gas Valve	VP Vent Pipe
IC Inspection Cover	WLD Water Level Depth
ID Invert Depth	WM Water Meter
IL Invert Level	WSC Water Stop Cock
	WSV Water Stop Valve
	WWO Water Wash Out

Drawing orientation

Level Datum:
Levels are related to OSGB15 derived from the GPS network

Grid:
Grid is related to OSGB15 derived from the GPS network

Northpoint:
The Northpoint position shown on this drawing has been located as accurately as possible, but is only indicative of true North

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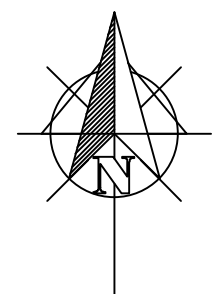
Client: Eastleigh Borough Council

Survey Location: 237 Chamberlayne Road
Eastleigh
SO50 5HX

Survey type: Utility	Scale: 1:100 @ A1
Drawing ref: ENC/231121/U3D6	Date: Nov 21
Drawn/QA: MH/DS	Revision: -

Please note: Adjacent building positions and heights have been surveyed where possible but boundary screening features prevented full lines of site and therefore full survey detail.

Appendix B - Planning Proposals



- KEY:
- Site boundary line
 - Grassed areas
 - Block paved areas
 - Tarmaced areas
 - Concrete Slab paved areas
 - Landscaped areas
 - Existing trees to be removed
 - Existing trees to be retained
 - 1m high walls with railings to building frontages
 - 1.8m high brick walls to gardens
 - 1.8m high timber fence between gardens
 - Gravel edging to buildings
 - Concrete Kerbs
 - Concrete Drop Kerbs
 - Car Charging point

P03	Issued for Planning	LOJ	26.06.23
P02	Issued for Planning	LOJ	31.05.23
P01	Issued for review	LOJ	17.05.23
Rev	Description	By	Date
Project Status		Drawing Status	
Stage 3		Planning	
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Client / Project			
Aspect (Eastleigh) Ltd Redevelopment of Samson's Gym			
Drawing			
PROPOSED SITE PLAN			
Date	17/05/2022	Scale	1:100
			@ A1
3rd Count	EF	Drawn By	LOJ
		Checked	EF
Manchester: 5th Floor 31 Dale Street Manchester M1 1EY +44 (0)161 831 7300			
Southampton: Maine Park Mines Road Southampton SO43 7FY +44 (0)23 8081 7900			
www.fairhursts.com			
P03 Ref	7694 -08- 600	Draw	P03

Appendix C - Flood Screening Report

Envirocheck[®] Report:

Flood Screening Report Datasheet

Order Details:

Order Number:

276366389_1_1

Customer Reference:

10583

National Grid Reference:

445130, 118430

Slice:

A

Site Area (Ha):

0.09

Search Buffer (m):

1000

Site Details:

Samsoms Gym & Crockery
Chamberlayne Road
EASTLEIGH
SO50 5HX

Client Details:

Ms D Peacock
Reuby and Stagg
Dewey House
55 High Street
Ringwood
Ringwood
Hampshire
BH24 1AE

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer(s) selected. For ease of reference, the report is broken down into seven sections of data.	
EA / NRW / CEH Flood Data	-
This section details data from the Environment Agency/Natural Resources Wales and the Centre for Ecology and Hydrology. The EA/NRW data is reported to a distance of 250m from the edge of the site polygon and details both Zone 2 (extreme) and Zone 3 flood extents, as well as flood defences, flood water storage areas and areas benefiting from flood defences. The CEH data is reported to a distance of 250m from the edge of the site polygon and covers flood data for Scotland, divided into levels based on the frequency and magnitude of a predicted 100 year term. All data sets within this section are plotted and feature on the EA / NRW / CEH Flood Data (1:10,000) map. For added value, OS Contour data is also plotted, detailing contours, spot heights and land water boundaries.	
JBA Flood Data	1
This section contains the Comprehensive Flood Map ("CFM") data from JBA Risk Management Limited. The data is based upon the likelihood of a flood occurrence for up to 4 flood return periods depending on the type of flooding; these being 75 years, 100 years, 200 years and 1000 years. Each layer being modelled at a 5m cell resolution. Each return period is depicted on a separate 1:10,000 scale map and reports features to a distance of 250m in the datasheet from the edge of the site polygon. For each return period the following three sources of flooding are identified, surface water or pluvial flooding, undefended river flooding or fluvial flooding and undefended coastal flooding. In each case the extent of the flooding source is displayed with the associated depth range. In addition, a 1:10,000 scale map depicting flooding from a Canal Failure and a coverage check for this dataset is included. Where coverage exists, information is reported in the datasheet where the site could be affected by flooding that results from a dam breach. For added value, OS Contour data is also plotted, detailing contours, spot heights and land water boundaries.	
BGS Flood Data	8
This section contains two BGS data sets; namely Geological Indicators of Flooding and Groundwater Flooding Susceptibility, both of which report features out to a possible 1000m, with coverage in England, Wales and Scotland. Each data set is plotted on a separate BGS Flood Data (1:50,000) map.	
GeoSmart Information Groundwater Flood Data	9
This section contains data provided by GeoSmart Information who, building on their expertise, have developed algorithms and calibrated predictions of the risk of groundwater flooding occurring in Great Britain. The resulting map, classifies groundwater flood risk for each 5m x 5m into four categories, negligible, low, moderate and high. These classifications are based on the level of risk, combining severity and uncertainty that a site will suffer groundwater flooding within a return period of about 200 years.	
OS Water Network Data	13
This section details the MasterMap Water Network data sourced from the Ordnance Survey. The OS MasterMap Water Network data details a network representing the watercourse within Great Britain. The OS Water Network Lines data set details the approximate central alignment of a watercourse, including rivers, lakes and canals. The OS Water Network Nodes data set details features that represent a river's source, end, a junction where three or more links meet, and places where the real world related attribution changes; for example a watercourse becoming tidal. The data sets within this section are plotted and feature on the OS Water Network Map (1:10,000) . For added value, OS Contour data is also plotted, detailing contours, spot heights and land water boundaries.	

EA/NRW Historic Flood Events Data	-
This section details Historic Flood data sourced from the Environment Agency/Natural Resources Wales and from data held by Landmark. The EA/NRW Historic Flood Events data is reported to a distance of 1000m from the edge of the site polygon and details recorded historic flood events from 1703 to October 2008. The data also contains information on the source and cause of the flood, and how the flood outline was established. Also included in this section is Landmark's Historical Flood Liabilities data set, which identifies areas that are liable to flood based on systematic analysis of historical mapping dating back to the mid 19th century. Both data sets within this section are plotted and feature on the EA/NRW Historical Flood (1:10,000) map. For added value, OS Contour data is also plotted, detailing contours, spot heights and land water boundaries.	
EA/NRW RoFRS Data	16
This section details the Risk of Flooding from Rivers and Sea (RoFRS) data sourced from the Environment Agency/Natural Resources Wales and is reported to a distance of 1000m from the edge of the site polygon. The RoFRS data provides an indication of areas of land at risk of flooding from rivers and the sea. These areas of land, called impacted cells, are represented as 50 metre squares, or smaller areas where a square is intersected by a river or coastline. The average height information of the impacted cell, modelled river and sea levels and information about over 200,000 flood defences are used as inputs to a computer flood model run by the Environment Agency/Natural Resources Wales. The model compares the probability that the flood defences will overtop or breach and the distance of the impact cell from the river or the sea for 40 scenarios for probabilities of between 100% to 0.1%. The results are then consolidated to calculate a single probability category for each impacted cell. These results have been validated by local staff using their local knowledge and expertise. RoFRS is a national flood risk assessment and does not contain information about property thresholds. Due to variations in the input data and the performance of the computer flood model at particular locations, the resulting category of an impacted cell should only be used at a specific study scale. In certain areas it would only be appropriate to compare risks between towns and counties whereas in other areas they would be more suitable for understanding risk at a street level. The level of suitability for a particular cell is indicated by the cell's suitability scale. The data within this section is plotted and feature on the EA/NRW RoFRS Data (1:50,000) map. This dataset is not available in Scotland.	
Flood Insurance Risk Data	18
This section contains flood risk data from Crawford and Company. This dataset is not plotted on any of the associated Flood maps. Crawford & Co have generated an Insurance Claims rating for Flood Risk. The risk is determined by comparing the number of flood insurance claims made to the number of properties in the postcode sector. The data will also include flood claims from domestic accidents or blocked drains, as well as flooding from river or tidal events. Flood insurance claim ratings are reported for the site only.	
Data Currency	19
Data Suppliers	22
Useful Contacts	23

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
EA / NRW / CEH Flood Data					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
JBA Flood Data					
JBA 75 Year Return (undefended) - Pluvial	pg 1		31	n/a	n/a
JBA 75 Year Return (undefended) - Fluvial				n/a	n/a
JBA 75 Year Return (undefended) - Coastal				n/a	n/a
JBA 100 Year Return (undefended) - Fluvial				n/a	n/a
JBA 100 Year Return (undefended) - Coastal				n/a	n/a
JBA 200 Year Return (undefended) - Pluvial	pg 2		45	n/a	n/a
JBA 200 Year Return (undefended) - Fluvial				n/a	n/a
JBA 200 Year Return (undefended) - Coastal				n/a	n/a
JBA 1000 Year Return (undefended) - Pluvial	pg 4		59	n/a	n/a
JBA 1000 Year Return (undefended) - Fluvial				n/a	n/a
JBA 1000 Year Return (undefended) - Coastal				n/a	n/a
JBA Canal Failure					
JBA Dam Break					
BGS Flood Data					
BGS Geological Indicators of Flooding	pg 8		2		3
BGS Groundwater Flooding Susceptibility	pg 8			3	2
GeoSmart Information Groundwater Flood					
GeoSmart Information Groundwater Flood Risk	pg 9	1		2	51
OS Water Network Data					
OS Water Network Lines	pg 13				15
OS Water Network Nodes	pg 14				12
EA/NRW Historic Flood Events Data					
Historic Flood Events					
Historical Flood Liabilities					
EA/NRW RoFRS Data					
RoFRS - Risk of Flooding from Rivers and Sea	pg 16				27
Flood Insurance Risk Data					
Postcode Sector Flood Insurance Claim Ratings	pg 18	1	n/a	n/a	n/a

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	2	2	445145 118420
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	13	2	445150 118450
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (S)	16	2	445120 118400
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (N)	98	2	445128 118540
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	124	2	445010 118345
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	132	2	445275 118460
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	137	2	445275 118380
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13NE (E)	138	2	445280 118465
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13NE (E)	141	2	445280 118475
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	141	2	445280 118385
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SE (E)	142	2	445280 118380
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	150	2	445280 118355
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	158	2	444975 118335
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	162	2	445235 118280
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	165	2	444970 118330
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (W)	172	2	444950 118355
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (S)	172	2	445180 118245
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	177	2	445235 118590
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	186	2	445040 118245
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	188	2	445275 118280
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (W)	192	2	444930 118350
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (SW)	200	2	445040 118230

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (W)	210	2	444915 118340
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	211	2	445355 118460
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	216	2	444910 118335
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (S)	219	2	445040 118210
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	228	2	445340 118300
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	229	2	445335 118290
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	230	2	445345 118305
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	243	2	445250 118195
	JBA 75 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (NW)	250	2	444885 118545
	JBA 75 Year Return (undefended) - Fluvial None				
	JBA 75 Year Return (undefended) - Coastal None				
	JBA 100 Year Return (undefended) - Fluvial None				
	JBA 100 Year Return (undefended) - Coastal None				
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	2	2	445145 118420
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	6	2	445120 118410
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	8	2	445110 118410
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	13	2	445150 118450
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (S)	27	2	445115 118390
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	28	2	445105 118390
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (N)	32	2	445128 118475
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (S)	42	2	445110 118375
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (N)	57	2	445125 118500
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (N)	93	2	445128 118535

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	105	2	445200 118325
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	109	2	445190 118315
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	123	2	445200 118305
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	124	2	445010 118345
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	131	2	445275 118450
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	132	2	445275 118460
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13NE (E)	133	2	445275 118465
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	134	2	445275 118470
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	137	2	445275 118380
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (S)	140	2	445165 118275
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13NE (E)	141	2	445280 118475
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	141	2	445280 118385
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SE (E)	142	2	445280 118380
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13NE (E)	144	2	445280 118485
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	147	2	445285 118380
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (S)	148	2	445180 118270
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	158	2	444975 118335
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	160	2	445230 118280
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	177	2	445235 118590
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	183	2	445265 118575
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SE (S)	186	2	445175 118230
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	186	2	445040 118245

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (SW)	191	2	445040 118240
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (W)	192	2	444930 118350
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	197	2	445275 118585
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (W)	199	2	444925 118345
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	207	2	444925 118325
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (W)	210	2	444915 118340
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	211	2	445355 118460
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	223	2	445030 118210
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	228	2	445340 118300
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	229	2	445335 118290
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	241	2	445320 118250
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	243	2	445250 118195
	JBA 200 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (NW)	249	2	444900 118570
	JBA 200 Year Return (undefended) - Fluvial None				
	JBA 200 Year Return (undefended) - Coastal None				
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	1	2	445145 118428
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	3	2	445120 118410
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (SW)	17	2	445115 118400
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	23	2	445105 118395
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (N)	32	2	445128 118475
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	34	2	445100 118385
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (S)	47	2	445115 118370
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	48	2	445065 118400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	55	2	445075 118375
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (N)	93	2	445128 118535
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	105	2	445200 118325
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	109	2	445190 118315
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (NW)	123	2	445005 118500
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	123	2	445200 118305
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	125	2	445270 118445
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	129	2	445255 118350
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	130	2	445265 118370
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	132	2	445270 118480
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13NE (E)	132	2	445275 118460
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	136	2	445265 118355
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	136	2	445275 118475
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (S)	138	2	445150 118275
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	141	2	445280 118385
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SE (E)	142	2	445280 118380
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	144	2	445285 118470
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	145	2	445275 118500
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (E)	147	2	445285 118380
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	155	2	445230 118285
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (N)	165	2	445150 118605
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	168	2	445205 118595

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (N)	170	2	445180 118605
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	176	2	445225 118595
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	184	2	445045 118245
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SE (S)	186	2	445175 118230
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (SW)	186	2	445040 118245
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13SW (SW)	189	2	444935 118345
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	192	2	445025 118245
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	193	2	444965 118290
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (S)	196	2	445175 118220
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	207	2	444925 118325
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (E)	207	2	445350 118460
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	208	2	445310 118290
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (W)	210	2	444915 118340
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	223	2	445030 118210
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SW (SW)	225	2	445035 118205
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	228	2	445340 118300
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	229	2	445335 118290
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	231	2	445260 118215
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	232	2	445270 118220
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (NW)	234	2	445005 118650
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	234	2	445300 118240
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NE (NE)	238	2	445270 118640

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (NW)	239	2	445015 118660
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	239	2	445295 118230
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	241	2	445320 118250
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (NW)	243	2	444910 118575
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.3m and Less than or equal to 1.0m	A13NE (E)	245	2	445385 118485
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13NW (NW)	247	2	444980 118650
	JBA 1000 Year Return (undefended) - Pluvial Flood Depth: Greater than 0.1m and Less than or equal to 0.3m	A13SE (SE)	248	2	445240 118185
	JBA 1000 Year Return (undefended) - Fluvial None				
	JBA 1000 Year Return (undefended) - Coastal None				
	JBA Canal Failure Coverage Coverage: This area has not been mapped for risk of flooding from canal or aqueduct failure or breach.	A13SE (S)	0	2	445128 118428
	JBA Canal Failure None				
	JBA Dam Break Coverage Coverage: This area has been mapped for flooding from dam or reservoir embankment failure or breach.	A13SE (S)	0	2	445128 118428
	JBA Dam Break None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Geological Indicators of Flooding Flooding Type: Inland Flooding Flood Potential: Lower flood potential from rivers: areas affected by secondary flooding in extreme cases as a result of a prolonged flood event. Code:	A13SE (E)	55	3	445200 118428
	BGS Geological Indicators of Flooding Flooding Type: Inland Flooding Flood Potential: Lower flood potential from rivers: areas affected by secondary flooding in extreme cases as a result of a prolonged flood event. Code:	A13SW (W)	110	3	445000 118428
	BGS Geological Indicators of Flooding Flooding Type: Inland Flooding Flood Potential: Higher flood potential from rivers: the first areas to experience the effects of inland flooding in a river catchment. Code:	A12SW (W)	821	3	444290 118378
	BGS Geological Indicators of Flooding Flooding Type: Inland Flooding Flood Potential: Lower flood potential from rivers: areas affected by secondary flooding in extreme cases as a result of a prolonged flood event. Code:	A12SW (W)	857	3	444260 118312
	BGS Geological Indicators of Flooding Flooding Type: Inland Flooding Flood Potential: Lower flood potential from rivers: areas affected by secondary flooding in extreme cases as a result of a prolonged flood event. Code:	A7NW (SW)	961	3	444280 117934
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (NW)	264	3	444950 118650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SW (N)	412	3	445050 118850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	461	3	444650 118450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8SW (S)	665	3	445100 117750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A19SW (NE)	833	3	445650 119100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A13SE (S)	0	2	445128 118428
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A13NW (NW)	273	2	444875 118575
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12SE (W)	468	2	444660 118290
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NE (W)	641	2	444485 118565
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	707	2	444445 118670
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	710	2	444430 118630
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	715	2	444425 118630
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	759	2	444375 118615
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	765	2	444380 118655
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	768	2	444375 118650
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	770	2	444435 118805
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SE (NW)	811	2	444470 118935
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NE (SW)	816	2	444595 117785
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	819	2	444425 118885
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7NE (SW)	833	2	444545 117805
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	856	2	444375 118875

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	860	2	444380 118890
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A19NW (NE)	865	2	445670 119125
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	869	2	444385 118915
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7NW (SW)	881	2	444440 117845
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	882	2	444370 118915
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	889	2	444340 118880
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	898	2	444395 118980
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A19NW (NE)	899	2	445700 119145
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	905	2	444510 117740
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	908	2	444280 118050
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	909	2	444400 119005
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	916	2	444280 118030
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	918	2	444285 118015
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7NW (SW)	924	2	444410 117815
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	932	2	444285 117985

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	945	2	444525 117675
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	948	2	444340 117865
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	954	2	444470 117710
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	955	2	444480 117700
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	958	2	444295 117915
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	960	2	444325 117865
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17NW (NW)	966	2	444435 119130
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	967	2	444490 117675
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	968	2	444385 119080
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	974	2	444530 117635
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	975	2	444490 117665
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	980	2	444495 117655
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A7NW (SW)	983	2	444345 117800
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17NW (NW)	985	2	444390 119110
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	985	2	444160 118685

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	987	2	444150 118650
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7NW (SW)	987	2	444340 117800
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	987	2	444325 119035
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A12NW (W)	989	2	444135 118585
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A7SE (SW)	989	2	444505 117635
	GeoSmart Information Groundwater Flood Data Risk: Negligible Risk Risk Details: There is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence has a chance of less than 1 in 100 (<1%) probability of occurrence.	A19NE (NE)	989	2	445830 119150
	GeoSmart Information Groundwater Flood Data Risk: Moderate Risk Risk Details: There is a moderate risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A19NE (NE)	992	2	445860 119125
	GeoSmart Information Groundwater Flood Data Risk: Low Risk Risk Details: There is a low risk of groundwater flooding in this area with a chance of greater than 1 in 100 (>1%) probability of occurrence.	A17SW (NW)	1000	2	444335 119070

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	OS Water Network Lines Watercourse Name: Monks Brook Watercourse Form: Inland river Watercourse Length: 439.3 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A12NW (W)	839	4	444285 118567
2	OS Water Network Lines Watercourse Name: Monks Brook Watercourse Form: Inland river Watercourse Length: 489.8 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A12SW (W)	858	4	444256 118336
3	OS Water Network Lines Watercourse Name: Monks Brook Watercourse Form: Inland river Watercourse Length: 12.5 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A12NW (W)	864	4	444246 118432
4	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 12.3 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	898	4	444342 117952
5	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	909	4	444329 117951
6	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 28.6 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	912	4	444328 117947
7	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 43.4 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	912	4	444328 117947
8	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: Underground Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	922	4	444334 117919
9	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 291.1 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	924	4	444335 117915

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	OS Water Network Lines Watercourse Name: Monks Brook Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	949	4	444285 117950
11	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 77.1 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	949	4	444285 117950
12	OS Water Network Lines Watercourse Name: Monks Brook Watercourse Form: Inland river Watercourse Length: 167.6 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	950	4	444285 117946
13	OS Water Network Lines Watercourse Name: Not Supplied Watercourse Form: Inland river Watercourse Length: 24.8 Watercourse Level: Underground Primacy: 1 Permanent: True Catchment Name: Itchen	A7NW (SW)	985	4	444223 117989
14	OS Water Network Lines Watercourse Name: Monks Brook Watercourse Form: Inland river Watercourse Length: 2.7 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A17SW (NW)	996	4	444196 118826
15	OS Water Network Lines Watercourse Name: Monks Brook Watercourse Form: Inland river Watercourse Length: 8.3 Watercourse Level: On ground surface Primacy: 1 Permanent: True Catchment Name: Itchen	A17SW (NW)	998	4	444194 118828
16	OS Water Network Nodes Hydronode Pseudo Category:	A12NW (W)	864	4	444246 118432
17	OS Water Network Nodes Hydronode Pseudo Category:	A12NW (W)	866	4	444245 118444
18	OS Water Network Nodes Hydronode Source Category:	A7NW (SW)	898	4	444342 117952
19	OS Water Network Nodes Hydronode Pseudo Category:	A7NW (SW)	909	4	444329 117951
20	OS Water Network Nodes Hydronode Junction Category:	A7NW (SW)	912	4	444328 117947
21	OS Water Network Nodes Hydronode Pseudo Category:	A7NW (SW)	922	4	444334 117919
22	OS Water Network Nodes Hydronode Pseudo Category:	A7NW (SW)	924	4	444335 117915

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	OS Water Network Nodes Hydronode Junction Category:	A7NW (SW)	949	4	444285 117950
24	OS Water Network Nodes Hydronode Junction Category:	A7NW (SW)	950	4	444285 117946
25	OS Water Network Nodes Hydronode Pseudo Category:	A7NW (SW)	985	4	444223 117989
26	OS Water Network Nodes Hydronode Pseudo Category:	A17SW (NW)	996	4	444196 118826
27	OS Water Network Nodes Hydronode Pseudo Category:	A17SW (NW)	998	4	444194 118828

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A8SW (SW)	738	1	444795 117750
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: High - Greater than or equal to 1 in 30 (3.3%) chance in any given year Assessment: Suitability Scale: County to Town Source: Environment Agency, Head Office	A7NE (SW)	774	1	444650 117795
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A7NE (SW)	781	1	444625 117805
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Very Low - Less than 1 in 1,000 (0.1%) chance in any given year Assessment: Suitability Scale: County to Town Source: Environment Agency, Head Office	A12NW (W)	797	1	444329 118579
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A12SW (W)	800	1	444310 118400
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A12SW (W)	804	1	444315 118295
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A12SW (W)	810	1	444300 118400
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Very Low - Less than 1 in 1,000 (0.1%) chance in any given year Assessment: Suitability Scale: County to Town Source: Environment Agency, Head Office	A12SW (W)	819	1	444325 118185
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A12NW (W)	821	1	444300 118550
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: High - Greater than or equal to 1 in 30 (3.3%) chance in any given year Assessment: Suitability Scale: National to County Source: Environment Agency, Head Office	A12NW (W)	838	1	444286 118568
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: High - Greater than or equal to 1 in 30 (3.3%) chance in any given year Assessment: Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12NW (W)	844	1	444281 118571
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A7NE (SW)	844	1	444485 117850
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12NW (W)	850	1	444286 118634
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12SW (W)	860	1	444254 118331

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A12NW (W)	861	1	444250 118450
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12SW (W)	863	1	444250 118350
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12SW (W)	866	1	444245 118400
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12SW (W)	901	1	444250 118150
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Very Low - Less than 1 in 1,000 (0.1%) chance in any given year Assessment: Suitability Scale: County to Town Source: Environment Agency, Head Office	A17SW (NW)	905	1	444289 118815
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12NW (W)	912	1	444200 118469
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12NW (W)	914	1	444206 118550
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: High - Greater than or equal to 1 in 30 (3.3%) chance in any given year Assessment: Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12NW (W)	921	1	444246 118750
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A7NW (SW)	923	1	444346 117900
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A12NW (W)	960	1	444200 118735
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: County to Town Source: Environment Agency, Head Office	A7SW (SW)	975	1	444400 117750
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A17SW (W)	982	1	444200 118800
	Risk of Flooding from Rivers and Sea (RoFRS) Flood Risk: Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) Assessment: chance in any given year Suitability Scale: Town to Street Source: Environment Agency, Head Office	A7NW (SW)	997	1	444200 118010

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Postcode Sector Flood Insurance Claim Ratings Insurance Rating: Low Flood Insurance Claim Rating Postcode Sector: SO50 5	A13SE (S)	0	2	445128 118428

EA / NRW / CEH Flood Data	Version	Update Cycle
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	March 2021	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	March 2021	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	March 2021	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	March 2021	Quarterly
Flood Defences Environment Agency - Head Office	March 2021	Quarterly
EA / NRW Surface Water Flood Data	Version	Update Cycle
Surface Water 1 in 30 year Flood Depth Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Depth Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Depth Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 30 year Flood Velocity Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Velocity Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Velocity Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 30 year Flood Flow Direction 25m Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Flow Direction 25m Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Flow Direction 25m Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 30 year Flood Hazard Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Hazard Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Hazard Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually

JBA Flood Data	Version	Update Cycle
JBA 75 Year Return (undefended) - Pluvial JBA Risk Management Limited	November 2019	Annually
JBA 75 Year Return (undefended) - Fluvial JBA Risk Management Limited	November 2019	Annually
JBA 75 Year Return (undefended) - Coastal JBA Risk Management Limited	November 2019	Annually
JBA 100 Year Return (undefended) - Fluvial JBA Risk Management Limited	November 2019	Annually
JBA 100 Year Return (undefended) - Coastal JBA Risk Management Limited	November 2019	Annually
JBA 200 Year Return (undefended) - Pluvial JBA Risk Management Limited	November 2019	Annually
JBA 200 Year Return (undefended) - Fluvial JBA Risk Management Limited	November 2019	Annually
JBA 200 Year Return (undefended) - Coastal JBA Risk Management Limited	November 2019	Annually
JBA 1000 Year Return (undefended) - Pluvial JBA Risk Management Limited	November 2019	Annually
JBA 1000 Year Return (undefended) - Fluvial JBA Risk Management Limited	November 2019	Annually
JBA 1000 Year Return (undefended) - Coastal JBA Risk Management Limited	November 2019	Annually
JBA Canal Failure JBA Risk Management Limited	November 2018	Annually
JBA Dam Break JBA Risk Management Limited	November 2018	Annually
BGS Flood Data	Version	Update Cycle
BGS Geological Indicators of Flooding British Geological Survey - National Geoscience Information Service	February 2011	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually
GeoSmart Information Groundwater Flooding Data	Version	Update Cycle
GeoSmart Information Groundwater Flood Risk GeoSmart Information Ltd	October 2020	Bi-Annually
OS Water Network Data	Version	Update Cycle
OS Water Network Lines Ordnance Survey	September 2020	Quarterly
OS Water Network Nodes Ordnance Survey	September 2020	Quarterly
EA/NRW Historic Flood Events Data	Version	Update Cycle
Historic Flood Events Environment Agency - Head Office	February 2020	Quarterly
Historical Flood Liabilities Landmark Information Group Limited	December 1999	Not Applicable

EA/NRW Risk of Flooding from Rivers and Sea (RoFRS)	Version	Update Cycle
RoFRS - Risk of Flooding from Rivers and Sea Environment Agency - Head Office	June 2020	Annually
Flood Insurance Risk Data	Version	Update Cycle
Postcode Sector Flood Insurance Claim Ratings Crawford and Company	January 2019	Quarterly

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Natural Resources Wales	
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
GeoSmart Information	
JBA Risk Management	

Contact	Name and Address	Contact Details
1	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
2	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
3	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
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	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409

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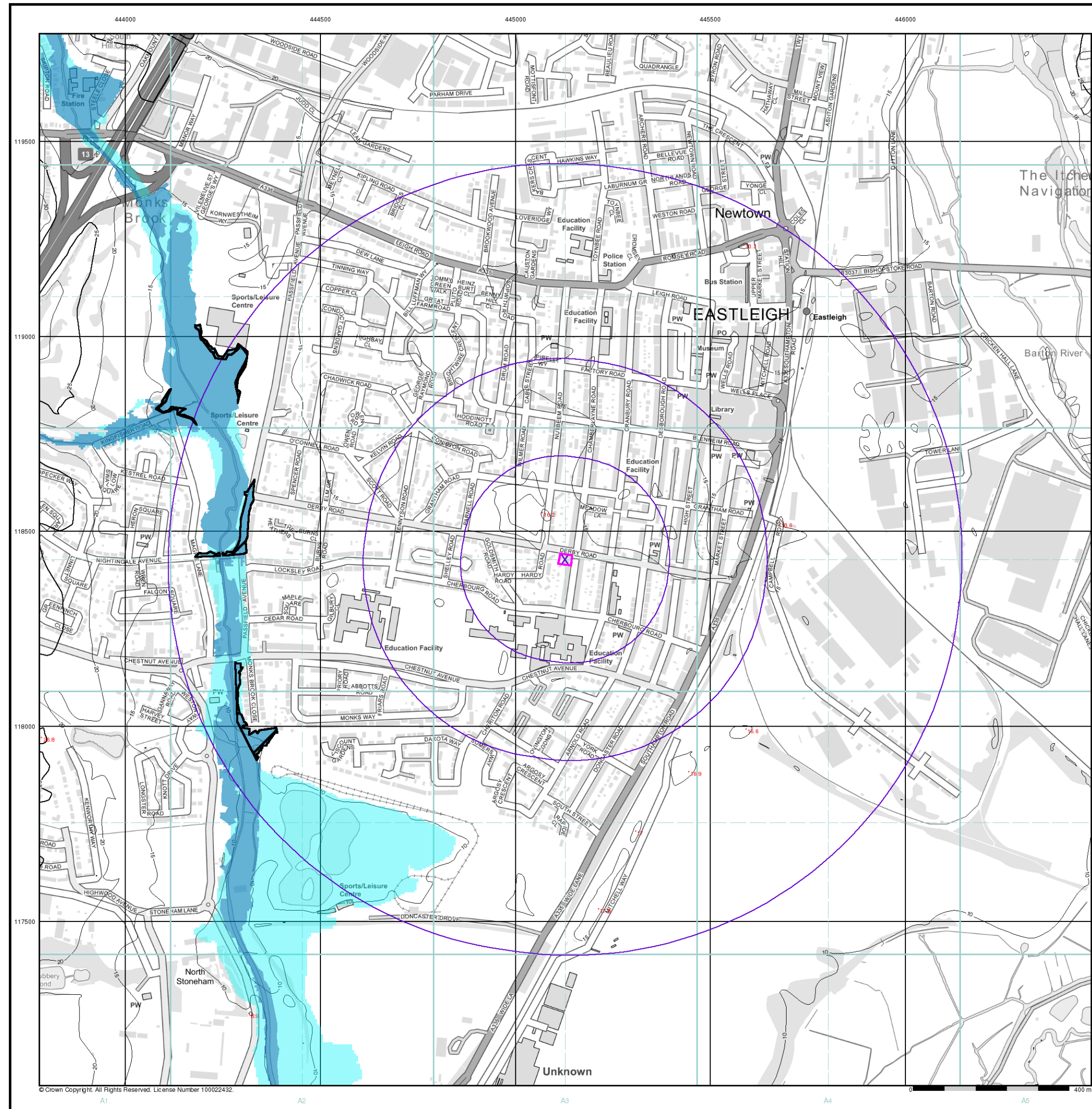
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EA/NRW Flood Data Map (1:10,000)

General

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

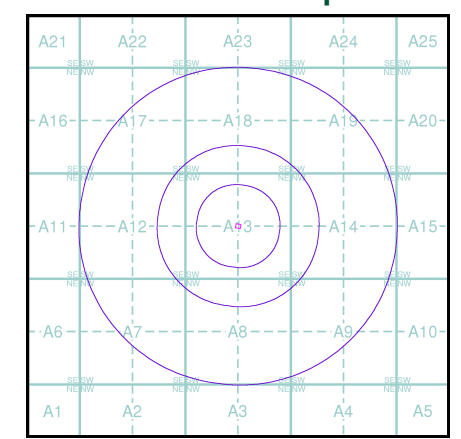
Flood Data

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

Contours (height in metres)

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

EA/NRW Flood Data Map - Slice A



Order Details

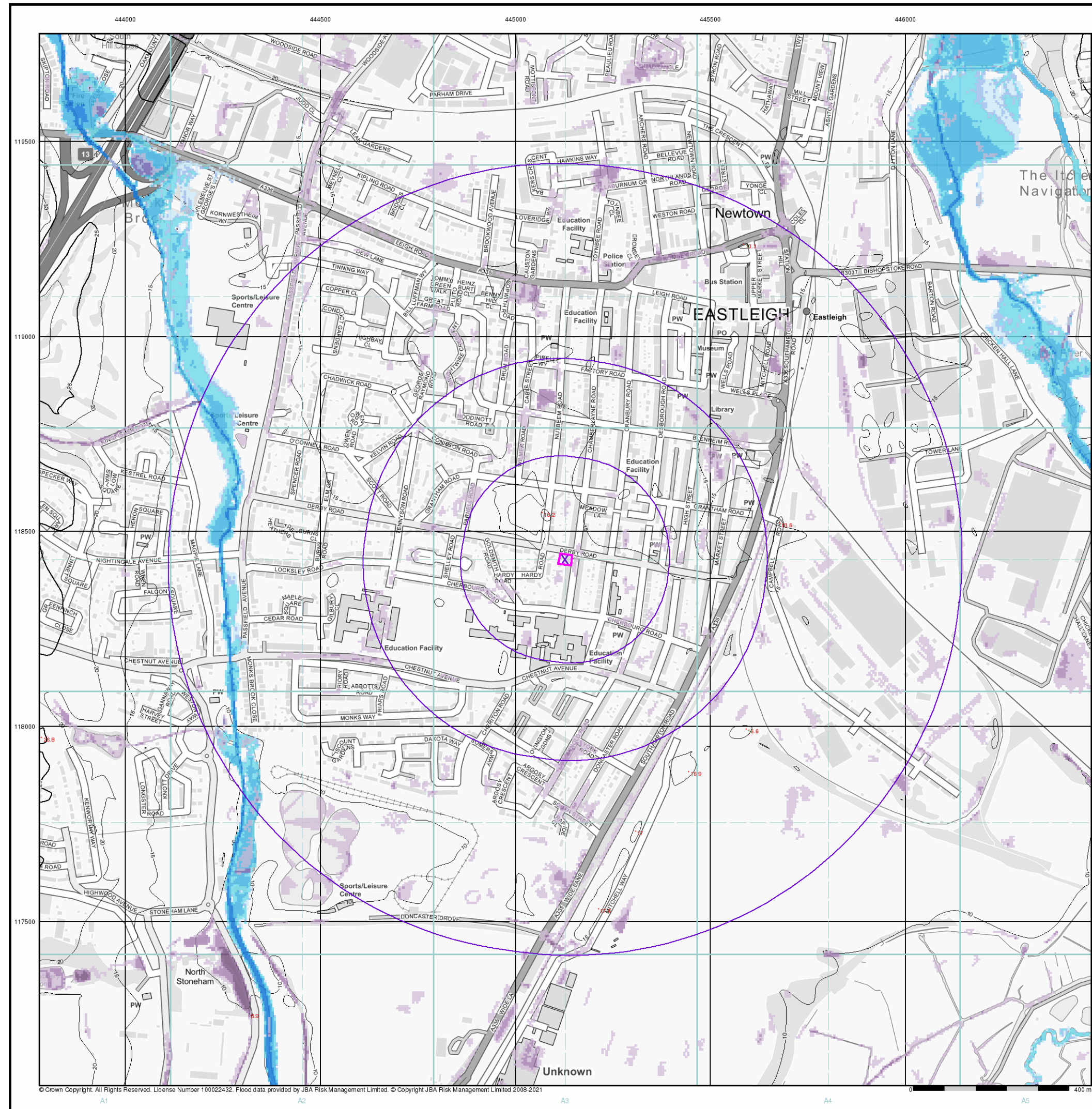
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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JBA 75 Year Return Flood Map (Undefended) (1:10,000)

General

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

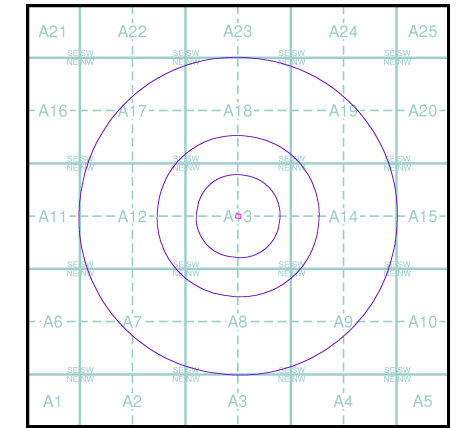
Modelled Flood Depth

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

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

JBA 75 Year Return Flood Map (Undefended) - Slice A



Order Details

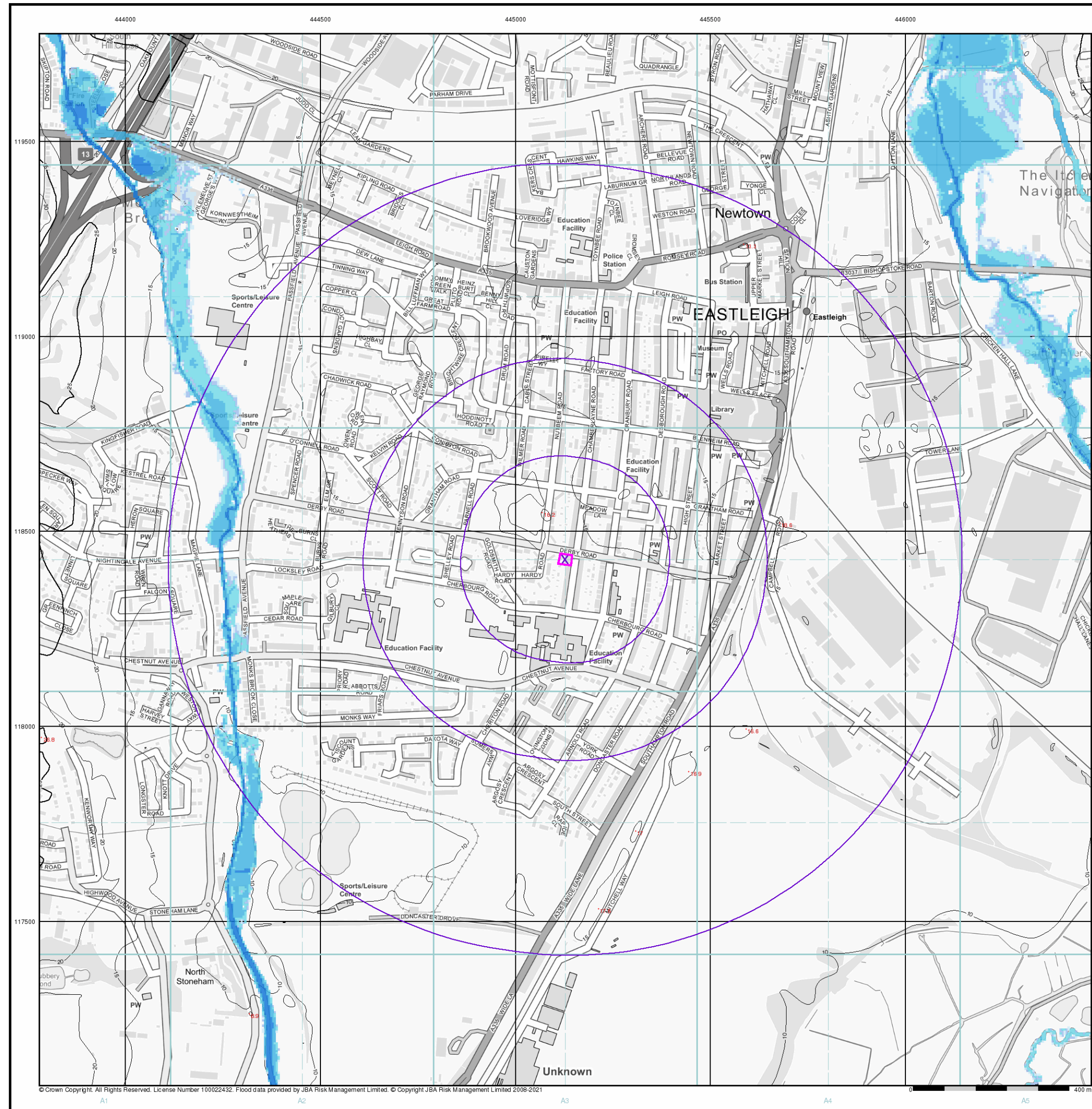
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

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

General

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

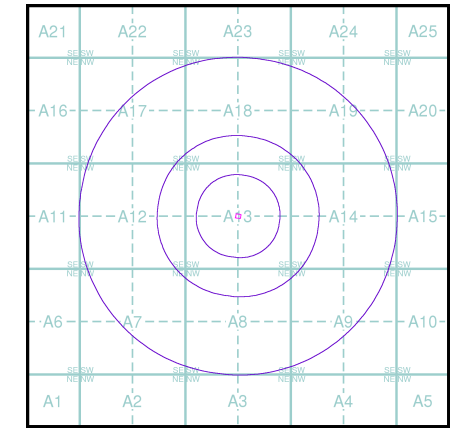
Modelled Flood Depth

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

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

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



Order Details

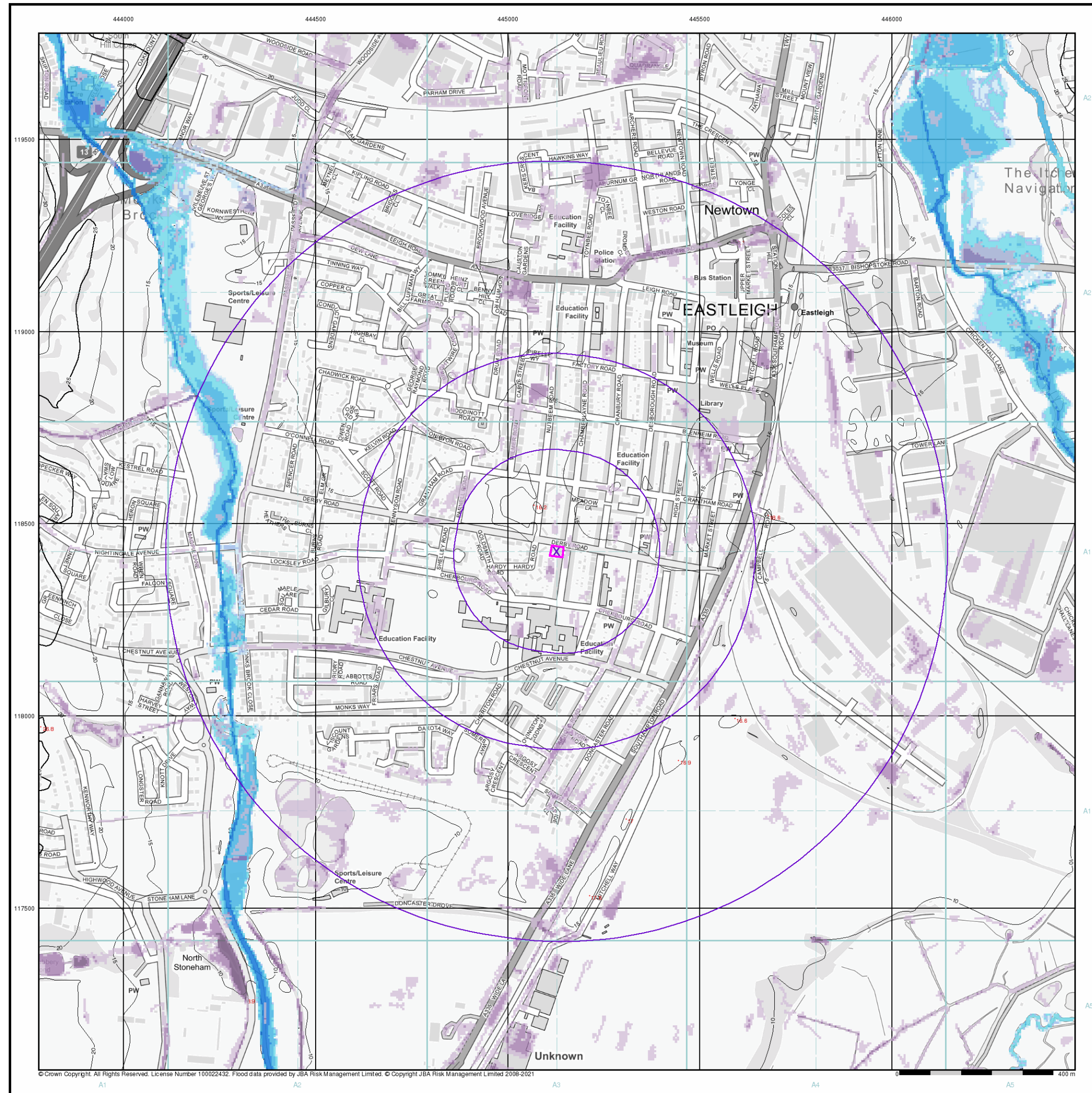
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Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

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

General

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

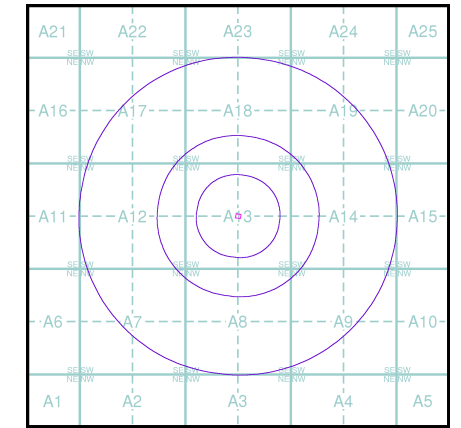
Modelled Flood Depth

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

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.8
- MLW: Mean Low Water
- MHW: Mean High Water

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



Order Details

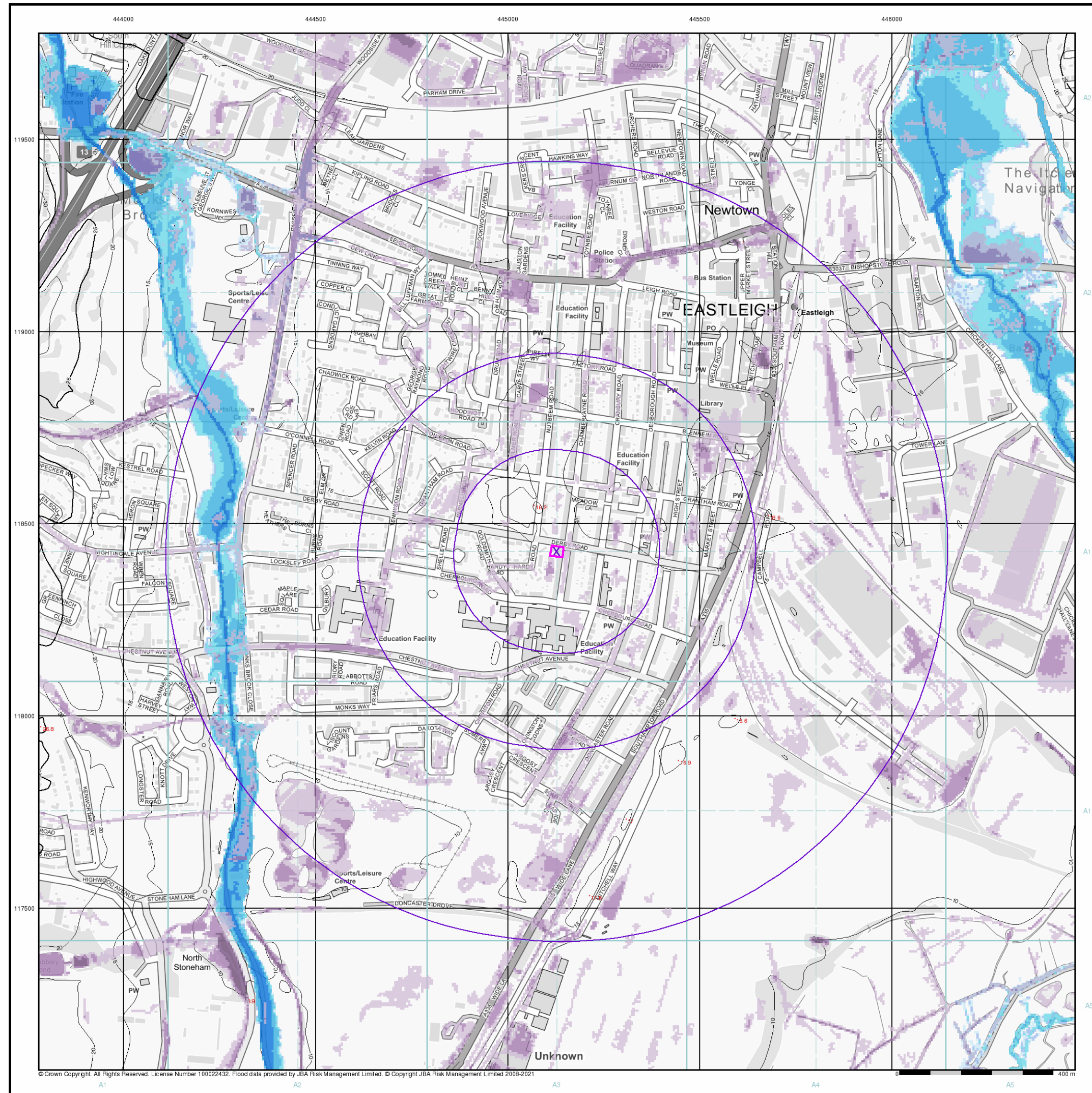
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

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

General

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

Modelled Flood Depth

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

Contours (height in metres)

Standard Contour: 105, 100, 95

Master Contour: 105, 100, 95

Spot Height: 167.8

MLW: Mean Low Water

MHW: Mean High Water

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

Order Details

Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

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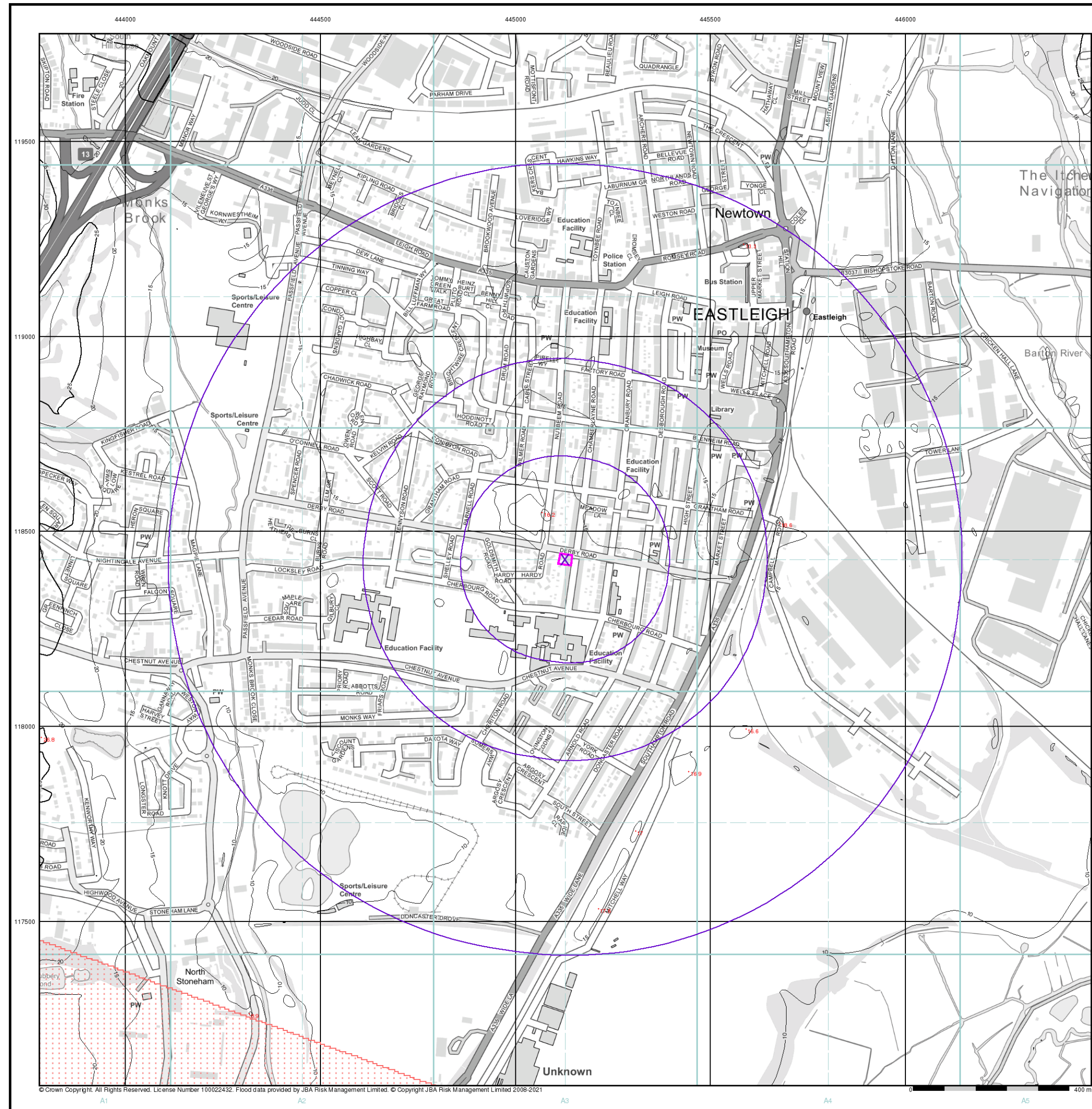
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JBA Canal Failure Map (1:10,000)

General

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

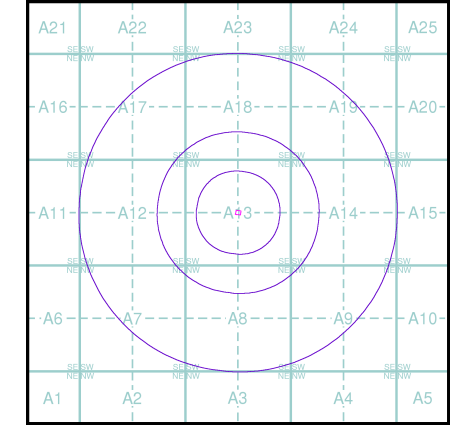
Flood Data

- Canal Failure
- Coverage

Contours (height in metres)

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

JBA Canal Failure Flood Map - Slice A



Order Details

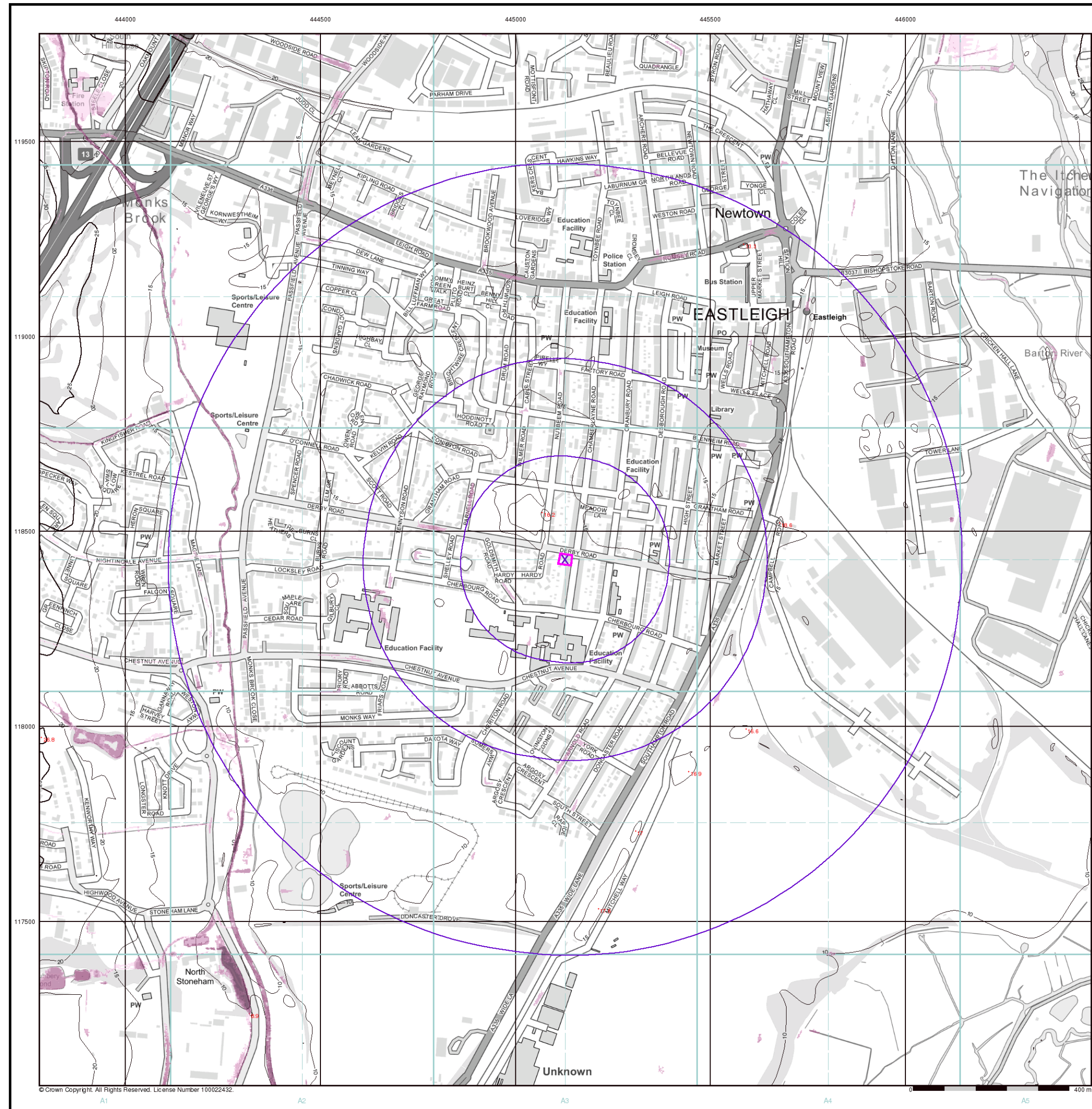
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

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

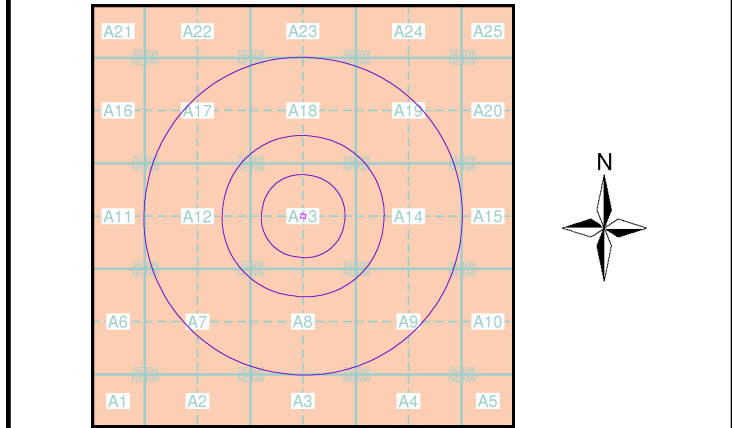
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Depth
0 - 0.15m
0.15 - 0.30m
0.30 - 0.60m
0.60 - 0.90m
0.90 - 1.20m
> 1.20m

Contours (height in metres)
Standard Contour
Master Contour
Spot Height
MLW Mean Low Water
MHW Mean High Water

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

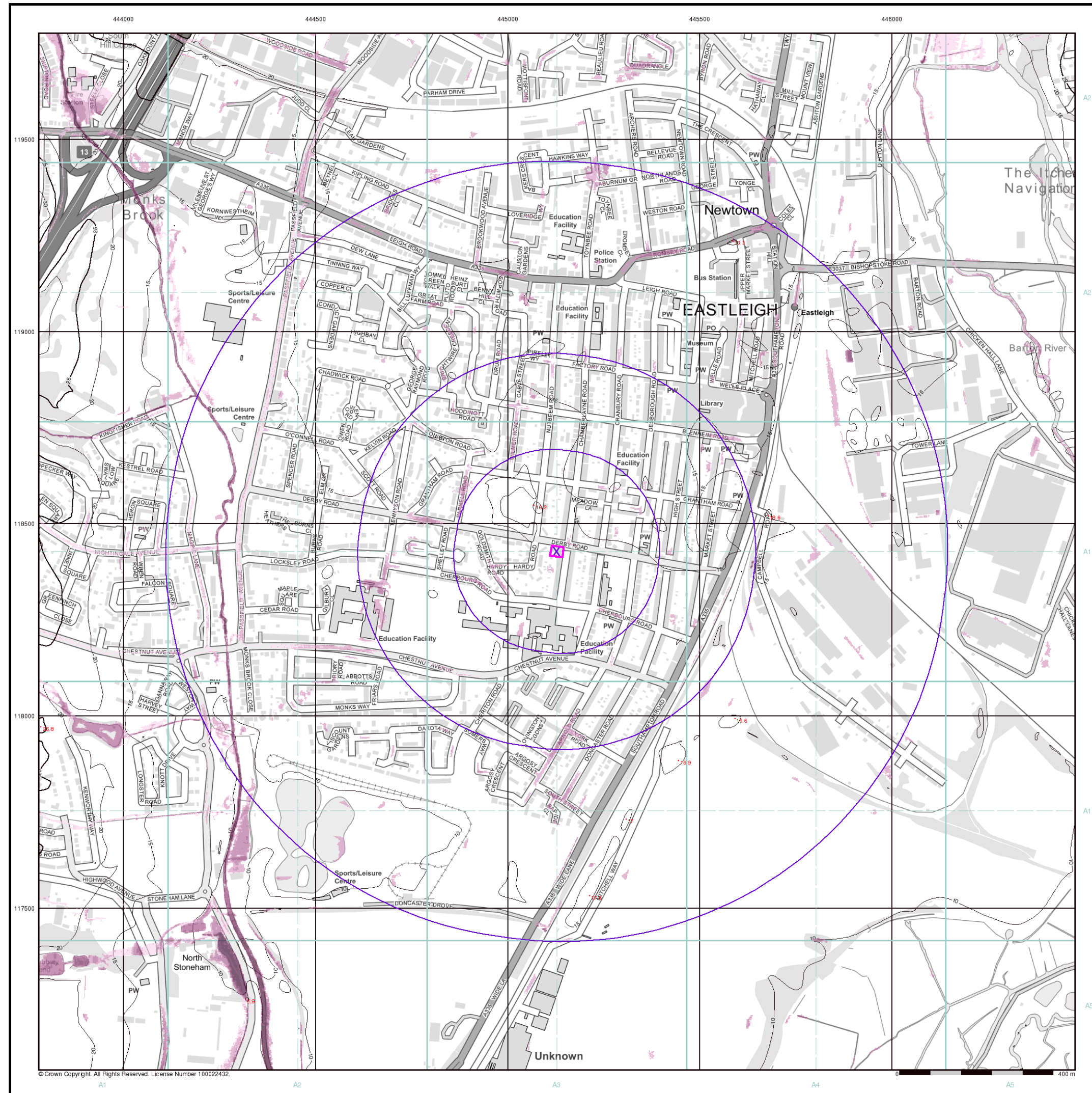
EA/NRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details
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EANRW Surface Water 100 Year Return Depth Map

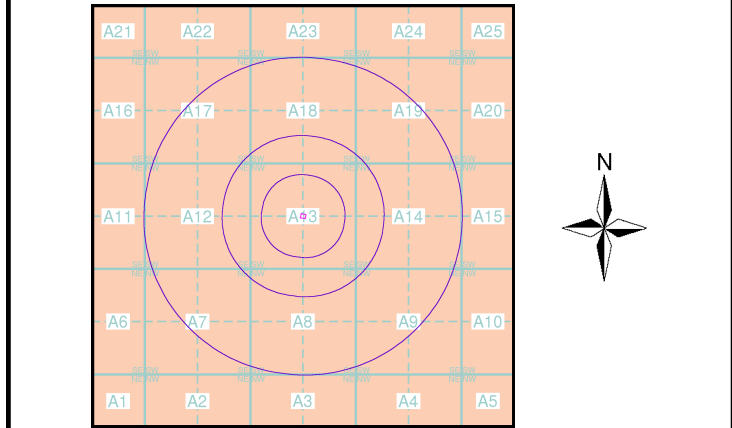
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Depth
0 - 0.15m
0.15 - 0.30m
0.30 - 0.60m
0.60 - 0.90m
0.90 - 1.20m
> 1.20m

Contours (height in metres)
Standard Contour 105 100 95
Master Contour 100 95
Spot Height *167.8
MLW Mean Low Water
MHW Mean High Water

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

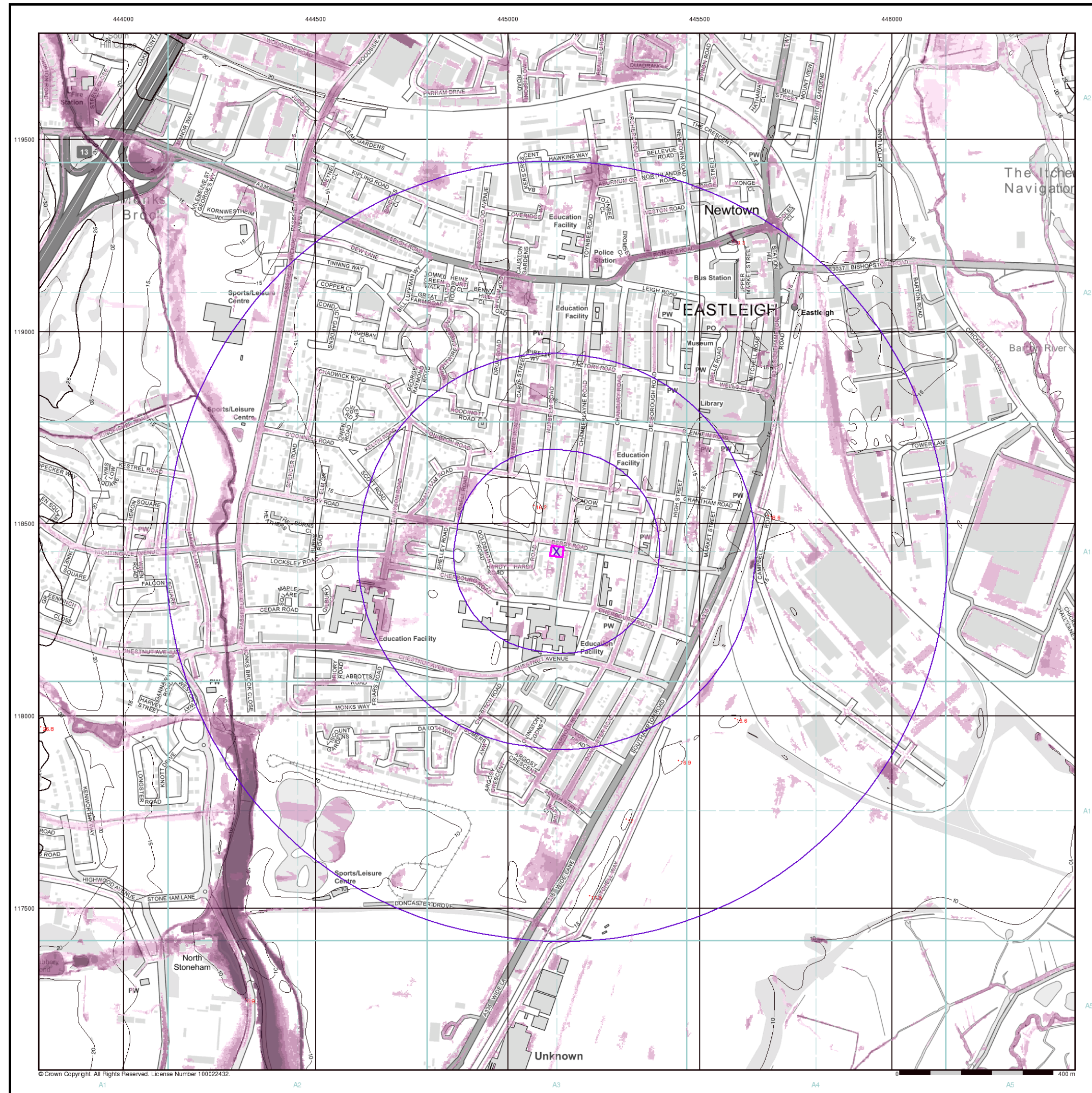
EANRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

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

General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Depth

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

Contours (height in metres)

Standard Contour 105 100 95

Master Contour 105 100 95

Spot Height *167.8

MLW Mean Low Water

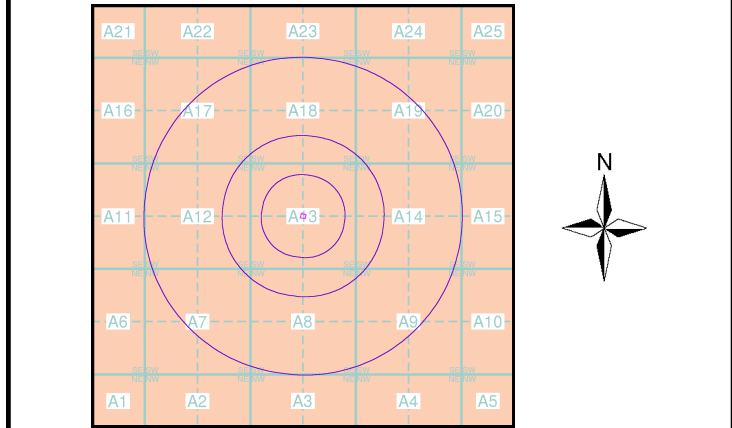
MHW Mean High Water

Suitability

See the suitability map below

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

EA/NRW Suitability Map - Slice A



Order Details

Order Number: 276366389_1_1

Customer Ref: 10583

National Grid Reference: 445130, 118430

Slice: A

Site Area (Ha): 0.09

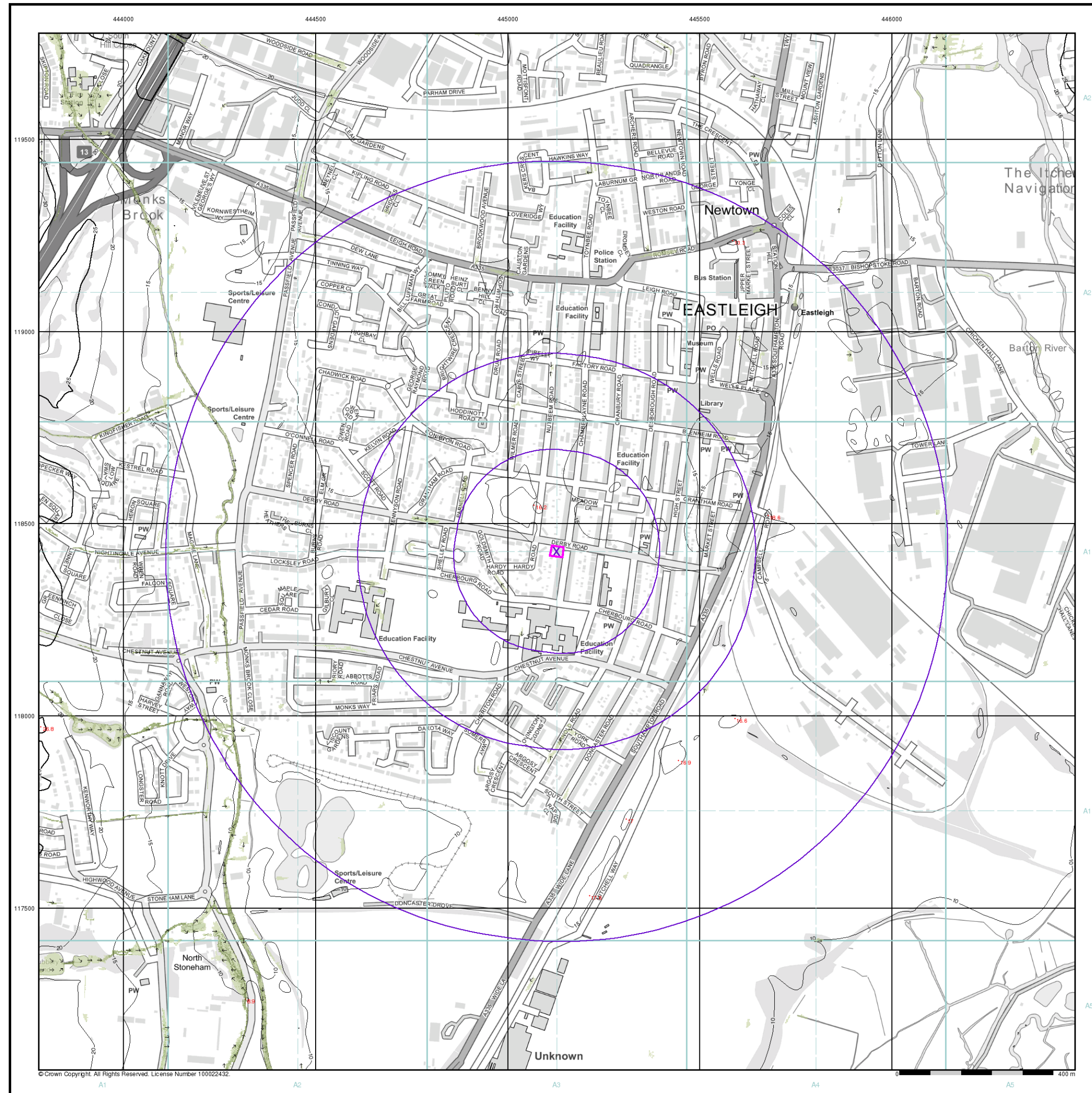
Search Buffer (m): 1000

Site Details

Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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

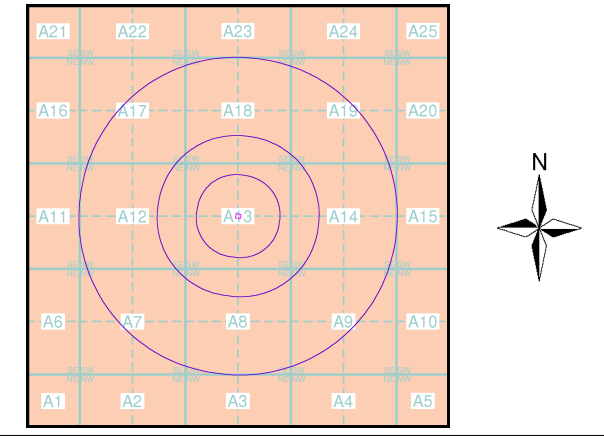
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Velocity and Direction
0.00 - 0.25m/s
0.25 - 0.50m/s
0.50 - 1.00m/s
1.00 - 2.00m/s
> 2.00m/s
Flow Direction at maximum velocity

Contours (height in metres)
Standard Contour
Master Contour
Spot Height
MLW Mean Low Water
MHW Mean High Water
167.8

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

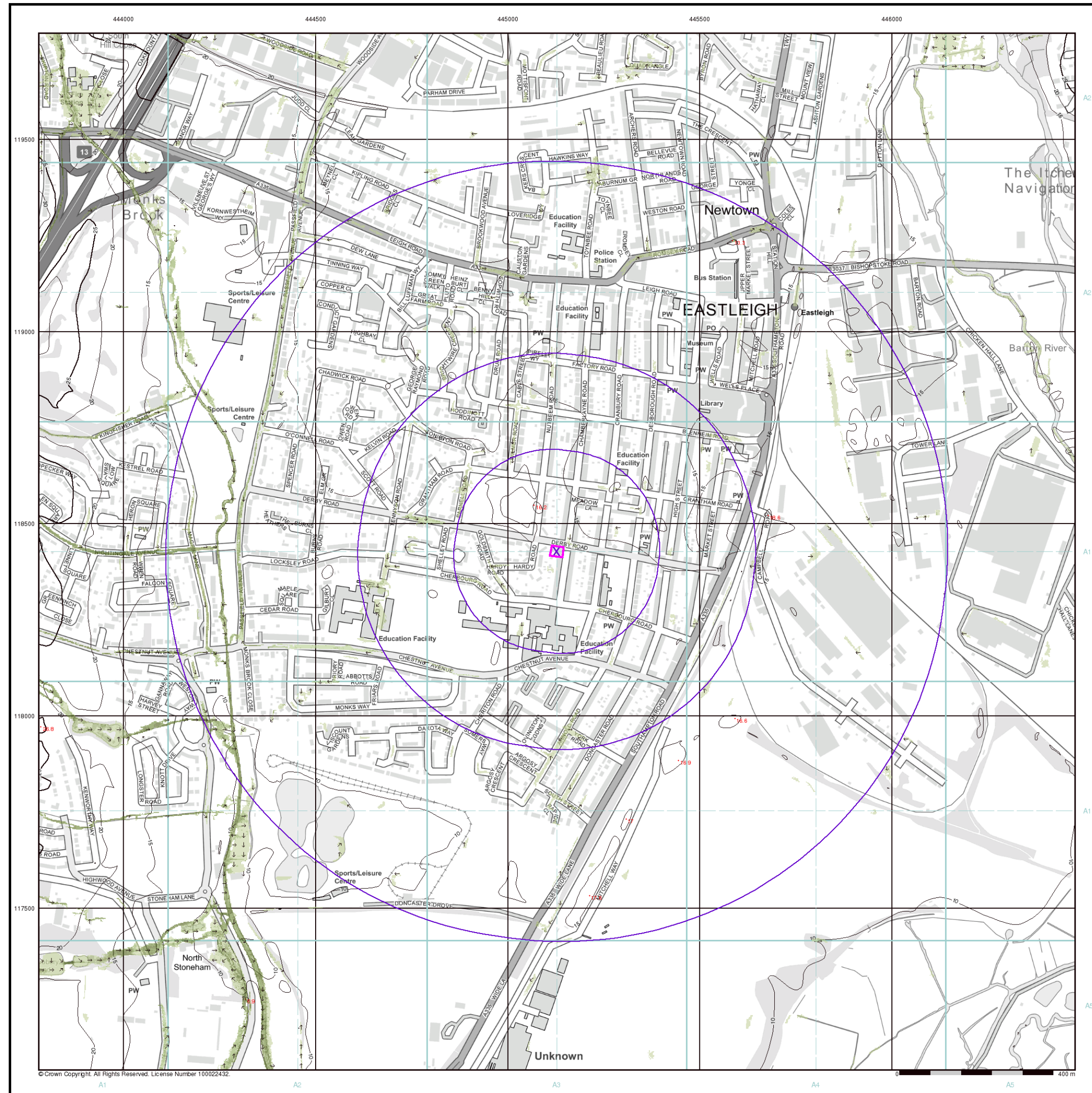
EANRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details
Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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

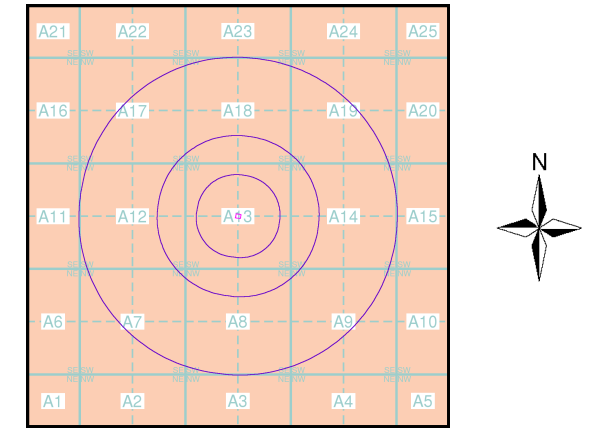
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Velocity and Direction
0.00 - 0.25m/s
0.25 - 0.50m/s
0.50 - 1.00m/s
1.00 - 2.00m/s
> 2.00m/s
Flow Direction at maximum velocity

Contours (height in metres)
Standard Contour
Master Contour
Spot Height
MLW Mean Low Water
MHV Mean High Water
167.8

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

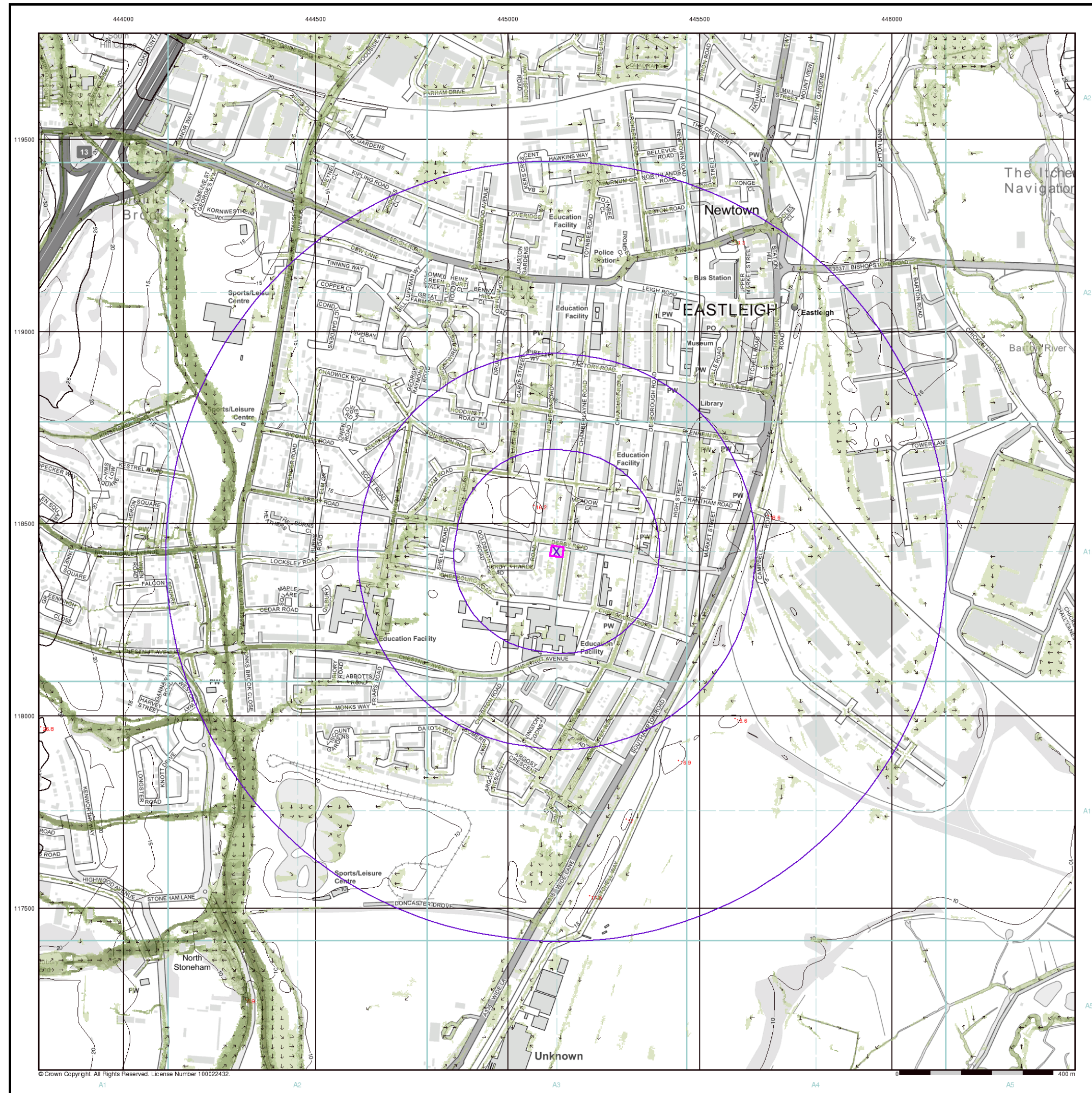
EANRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details
Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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

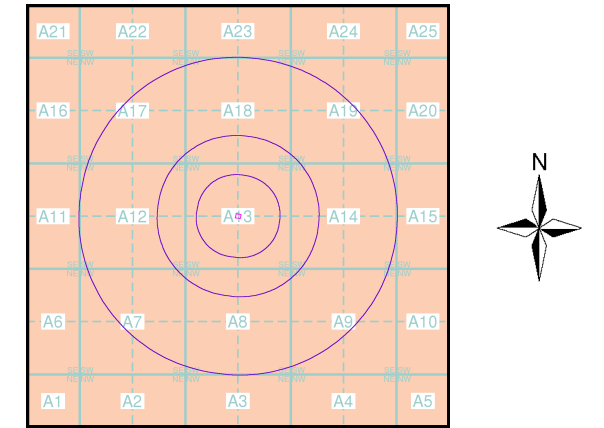
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Velocity and Direction
0.00 - 0.25m/s
0.25 - 0.50m/s
0.50 - 1.00m/s
1.00 - 2.00m/s
> 2.00m/s
Flow Direction at maximum velocity

Contours (height in metres)
Standard Contour
Master Contour
Spot Height
MLW Mean Low Water
MHW Mean High Water
167.8

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

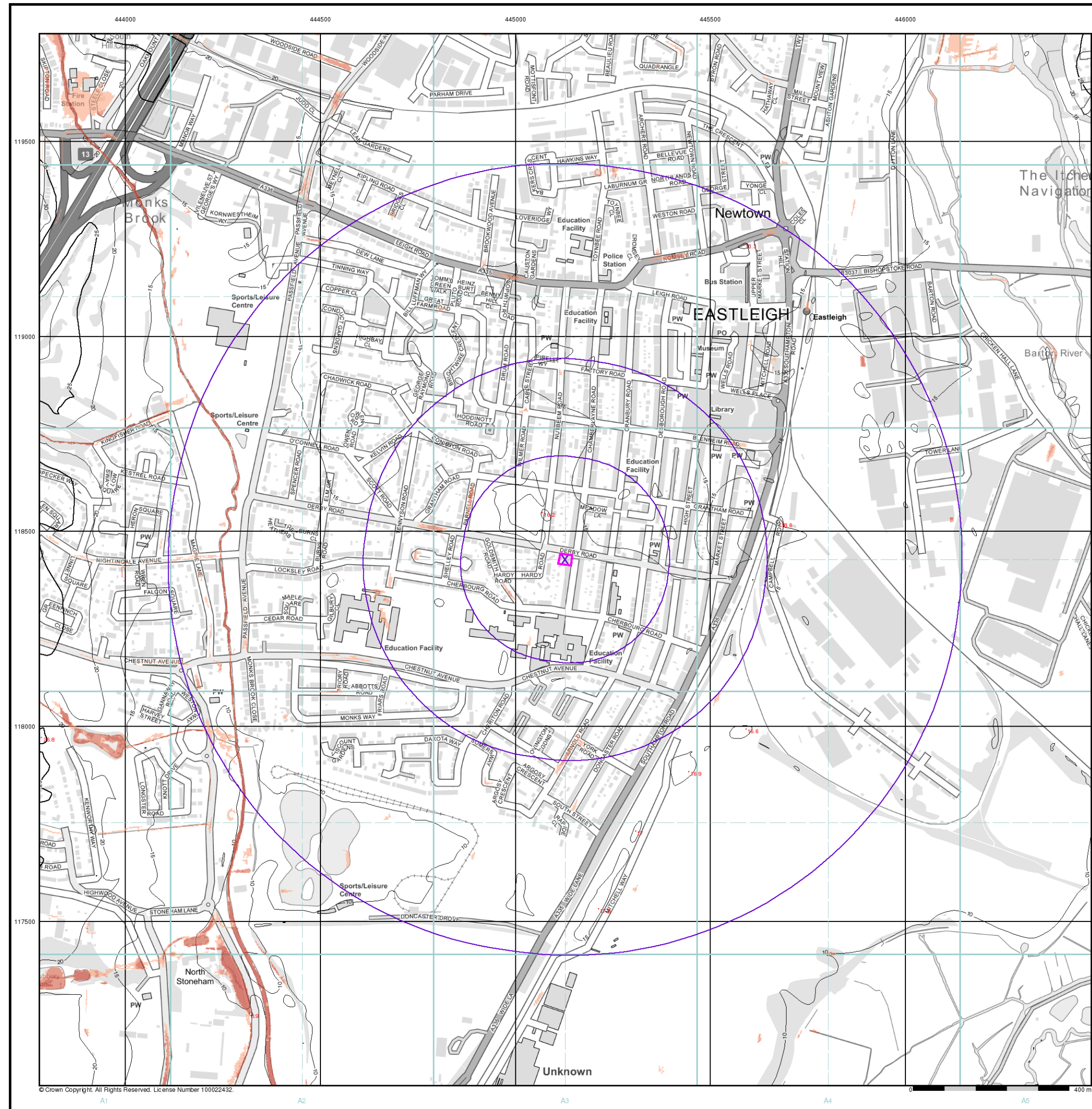
EANRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details
Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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EANRW Surface Water 30 Year Return Hazard Rating Map (1:10,000)

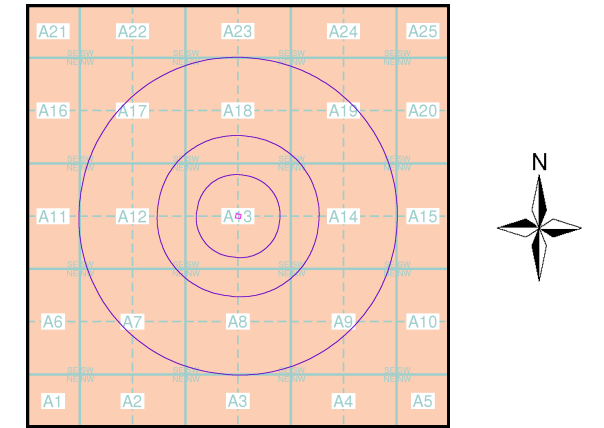
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Hazard Rating
Low (0.5 – 0.75)
Moderate (0.75 – 1.25)
Significant (1.25 – 2.0)
Extreme (>2.0)

Contours (height in metres)
Standard Contour
Master Contour
Spot Height
MLW Mean Low Water
MHW Mean High Water
167.8

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

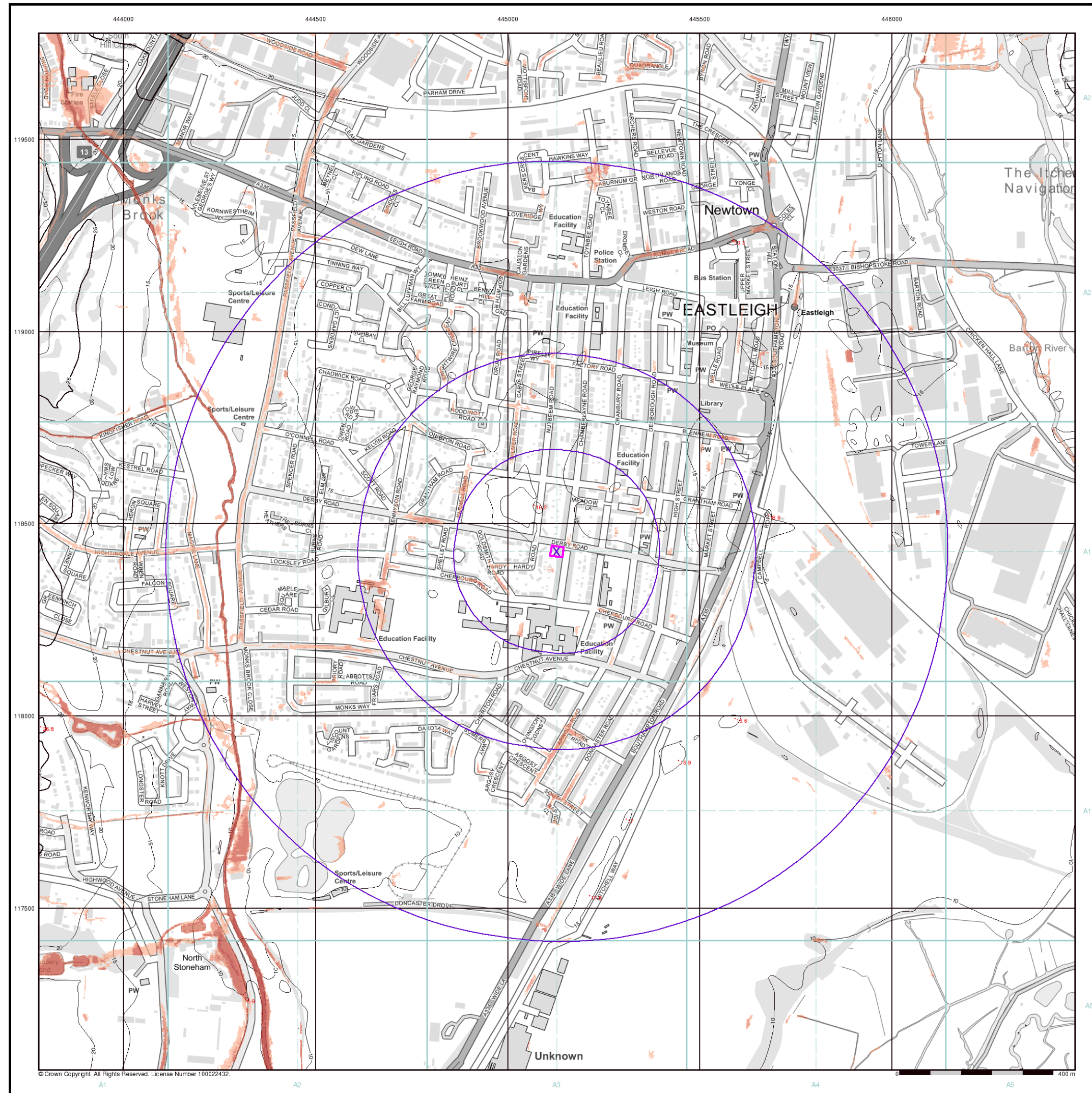
EANRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details
Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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

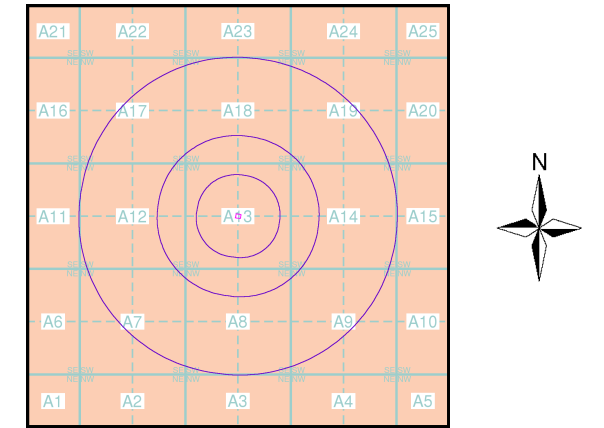
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Hazard Rating
Low (0.5 – 0.75)
Moderate (0.75 – 1.25)
Significant (1.25 – 2.0)
Extreme (>2.0)

Contours (height in metres)
Standard Contour
Master Contour
Spot Height
MLW Mean Low Water
MHW Mean High Water
167.8

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

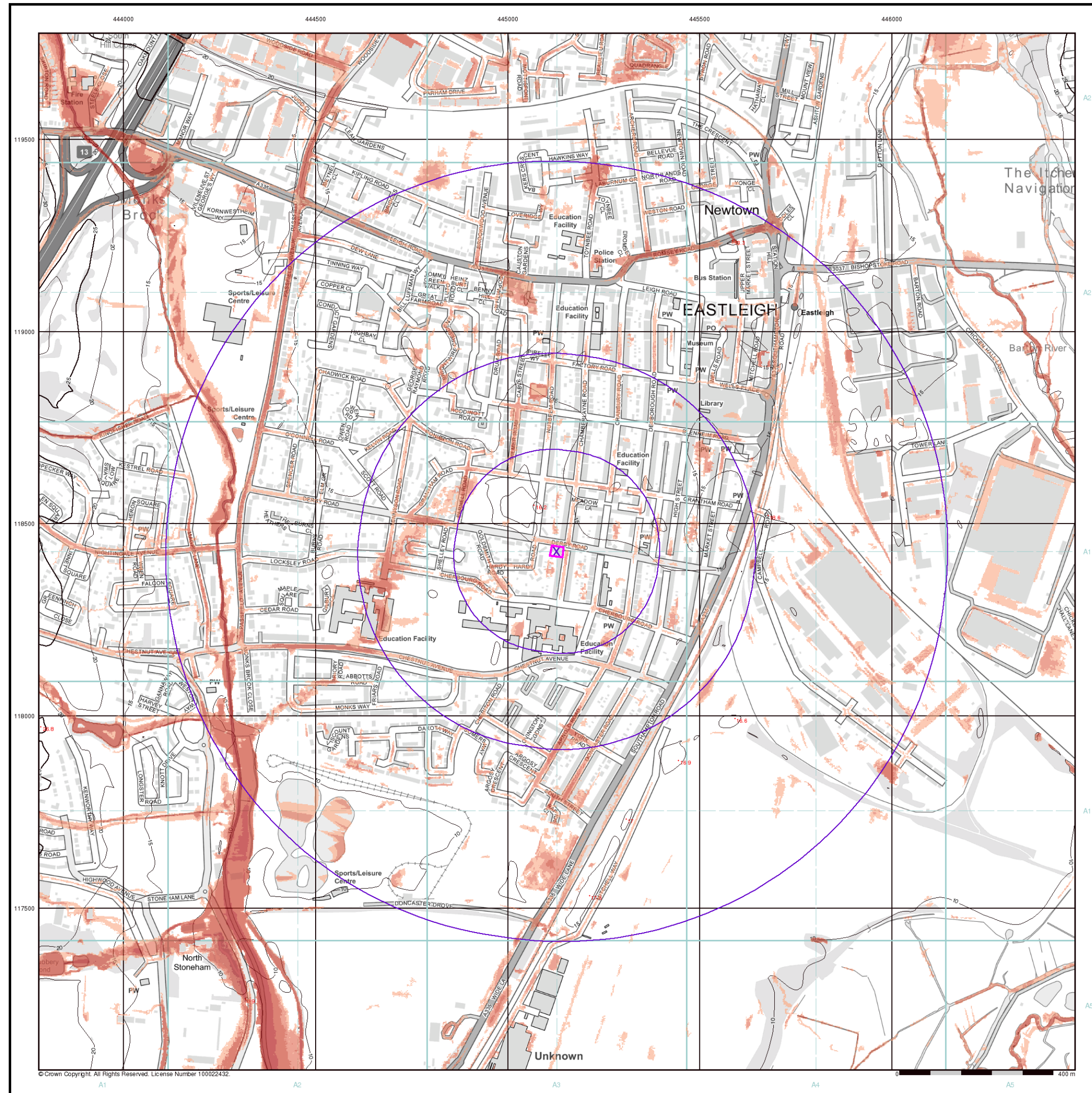
EA/NRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details
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EANRW Surface Water 1000 Year Return Hazard Rating Map (1:10,000)

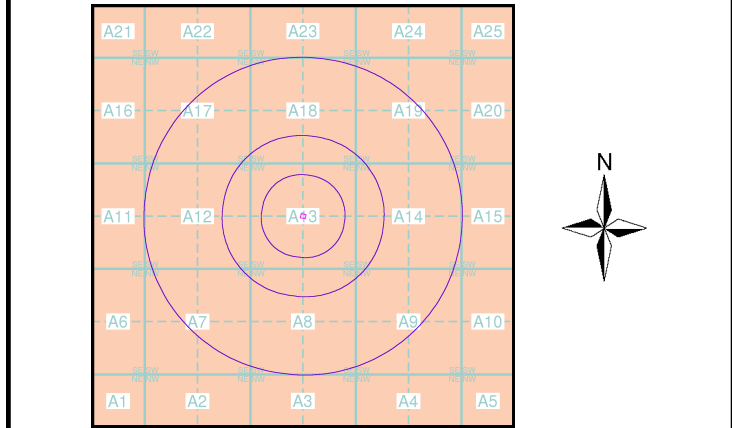
General
Specified Site Specified Buffer(s) Bearing Reference Point

Surface Water Hazard Rating
Low (0.5 – 0.75)
Moderate (0.75 – 1.25)
Significant (1.25 – 2.0)
Extreme (>2.0)

Contours (height in metres)
Standard Contour
Master Contour
Spot Height
MLW Mean Low Water
MHW Mean High Water
167.8

Suitability
See the suitability map below
National to county
County to town
Town to street
Street to parcels of land
Property

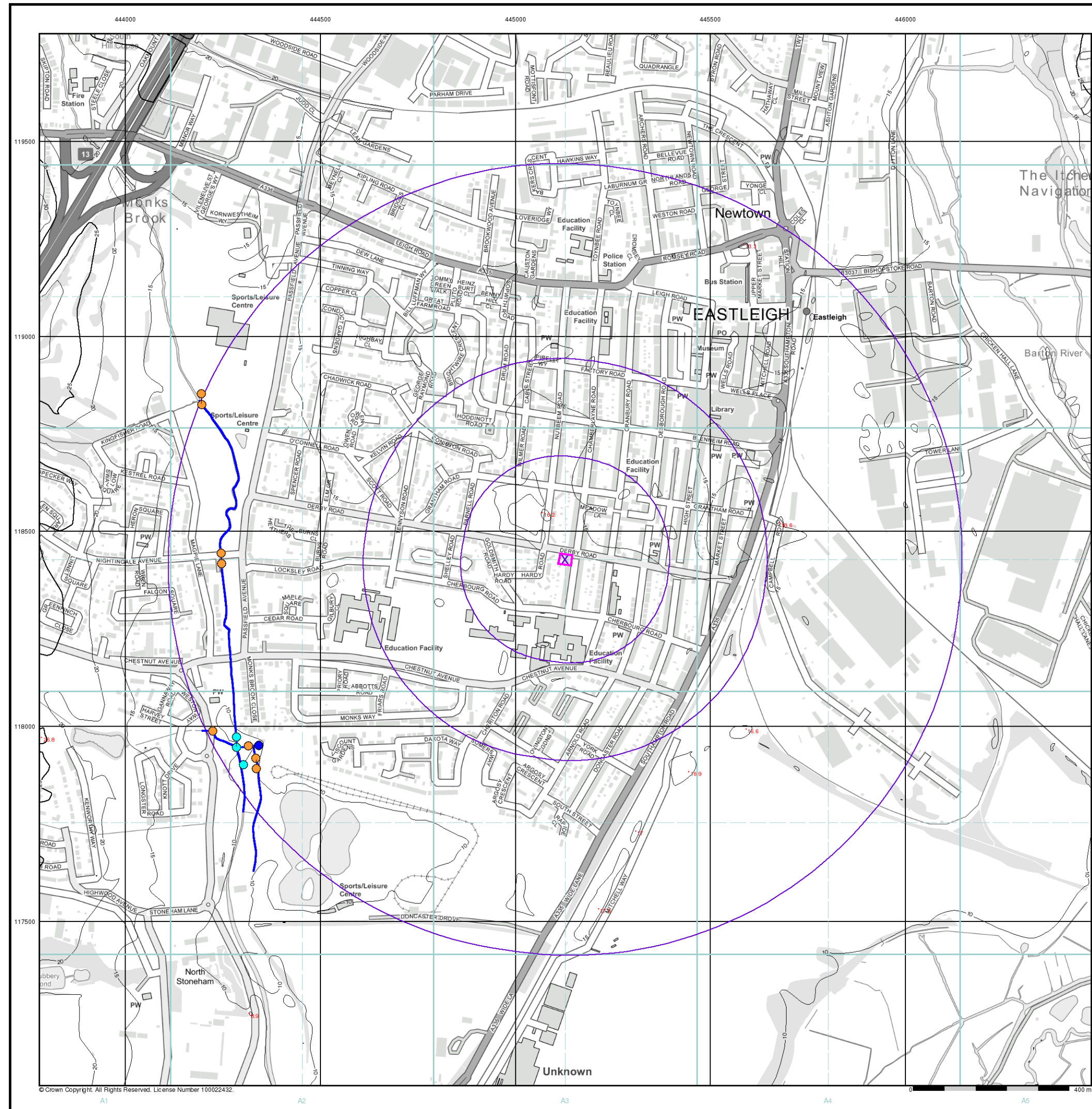
EANRW Suitability Map - Slice A



Order Details
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details
Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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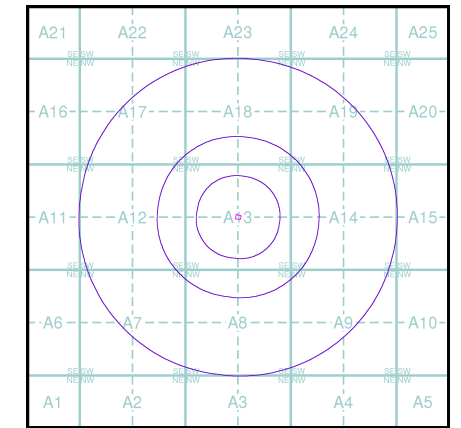
OS Water Network Lines Map (1:10,000)

- 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 |
| Junction | Source |
| Outlet | Other |
| Pseudo | |

- Contours (height in meters)**
- Standard Contour 105 100 95
- Master Contour 105 100 95
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A

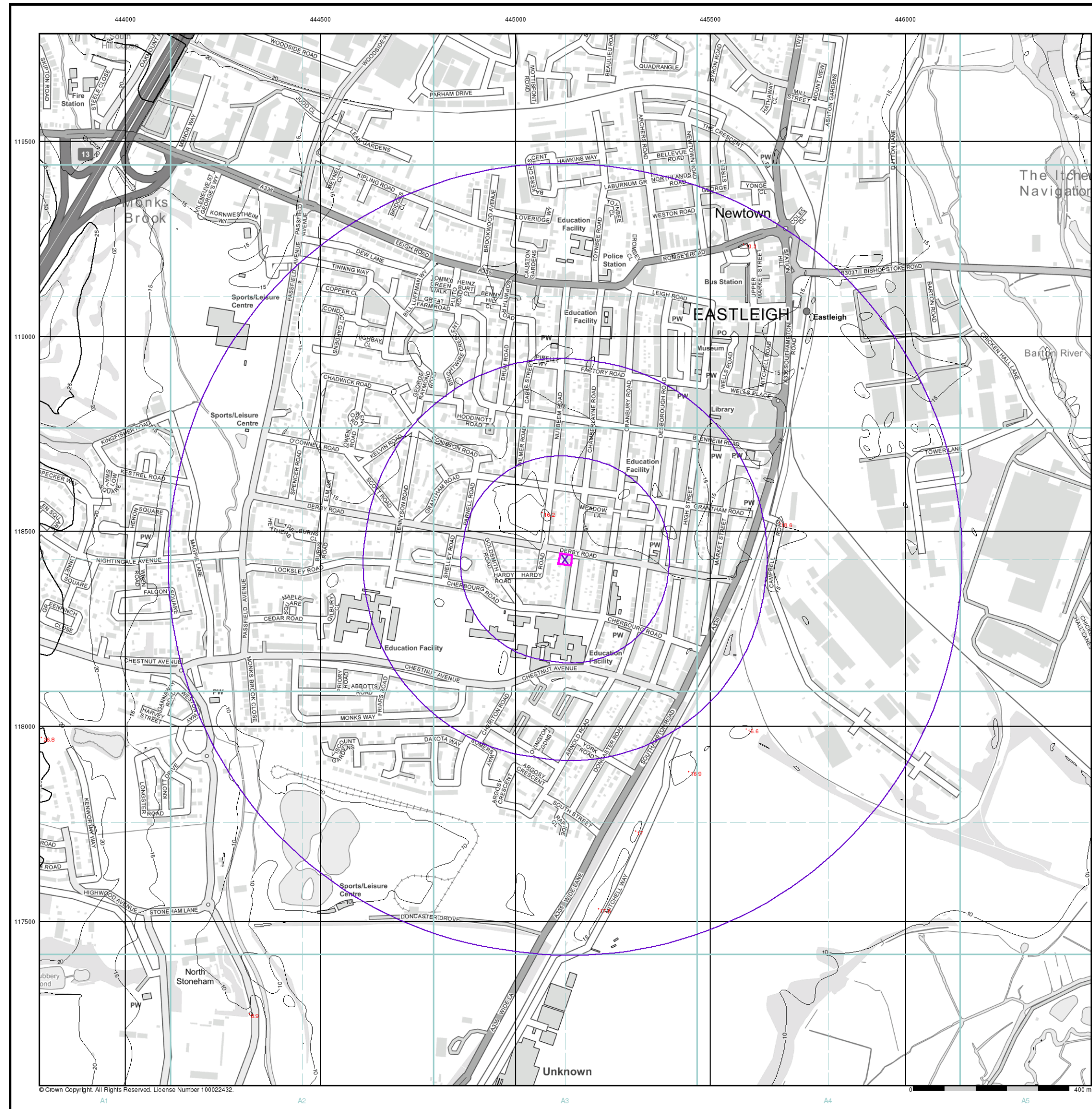


- Order Details**
- Order Number: 276366389_1_1
- Customer Ref: 10583
- National Grid Reference: 445130, 118430
- Slice: A
- Site Area (Ha): 0.09
- Search Buffer (m): 1000

- Site Details**
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EA/NRW Historic Flood Map (1:10,000)

General

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

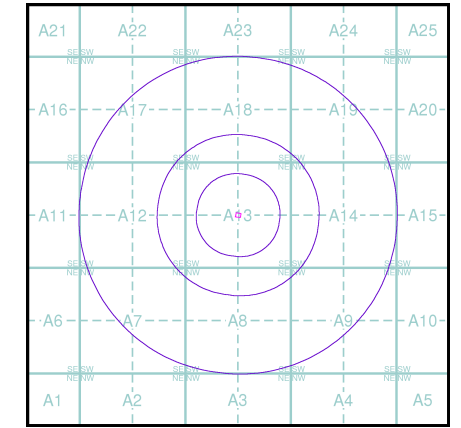
Historic Flood Events Data

- | | |
|--|--|
| Channel Capacity Exceeded (no raised defences) | Obstruction/Blockage - Culvert |
| Channel Capacity Exceeded /Surface Water | Obstruction/Blockage - Debris Screen |
| Groundwater/High Water Table | Operational Failure/ Breach of Defence |
| Local Drainage/Surface Water | Other |
| Mechanical Failure | Overtopping of Defences |
| Obstruction/Blockage - Bridge | Surface Water |
| Obstruction/Blockage - Channel | Unknown |
| Historical Flood Liabilities | |

Contours (height in metres)

- Standard Contour 105
- Master Contour 100
- Spot Height 167.8
- MLW Mean Low Water
- MHW Mean High Water

EA/NRW Historic Flood Map - Slice A



Order Details

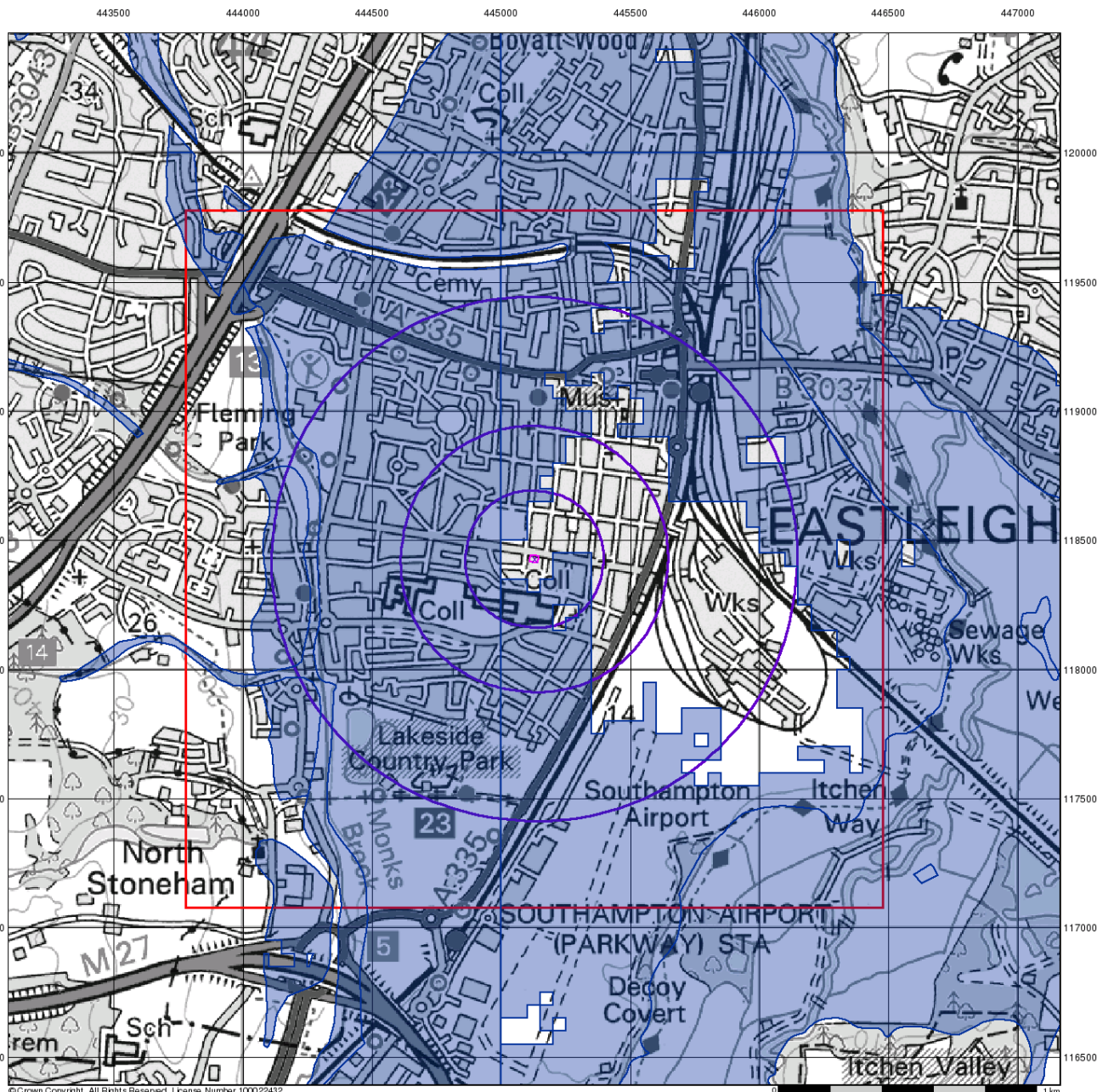
- Order Number: 276366389_1_1
- Customer Ref: 10583
- National Grid Reference: 445130, 118430
- Slice: A
- Site Area (Ha): 0.09
- Search Buffer (m): 1000

Site Details

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BGS Flood Data (1:50,000)

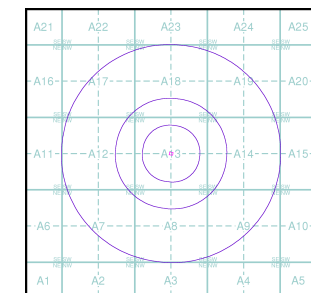
General

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

BGS Geological Indicators of Flooding

- Coastal
- Inland
- Bodies of Water

BGS Flood Data Map - Slice A



Order Details

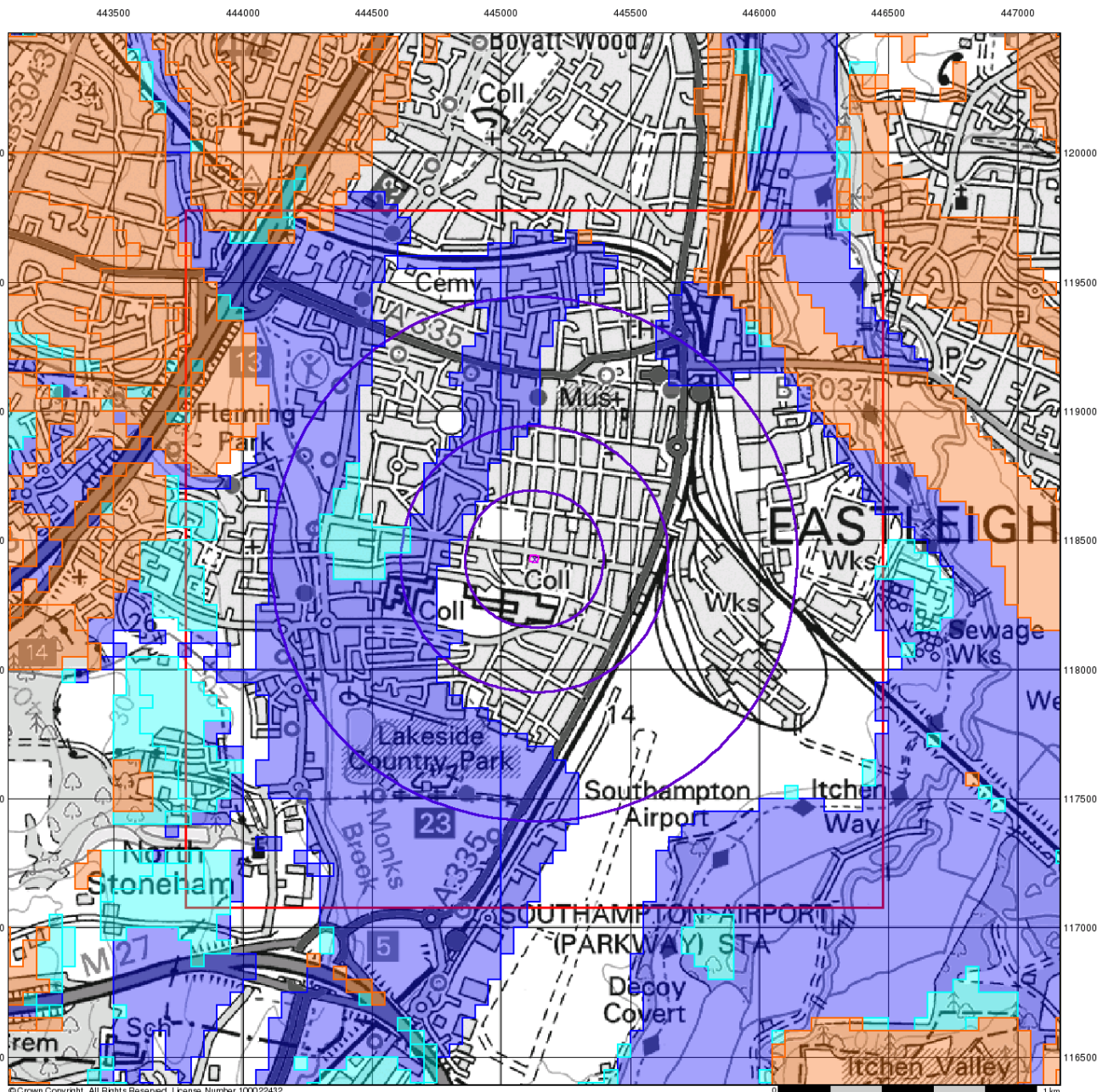
Order Number: 276366389_1_1
 Customer Ref: 10583
 National Grid Reference: 445130, 118430
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

Site Details

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BGS Flood Data (1:50,000)

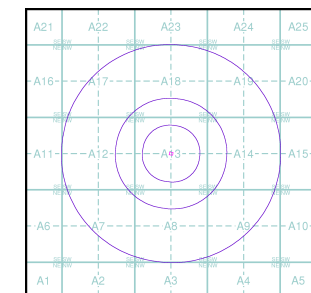
General

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

BGS Groundwater Flooding Susceptibility

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

BGS Flood Data Map - Slice A



Order Details

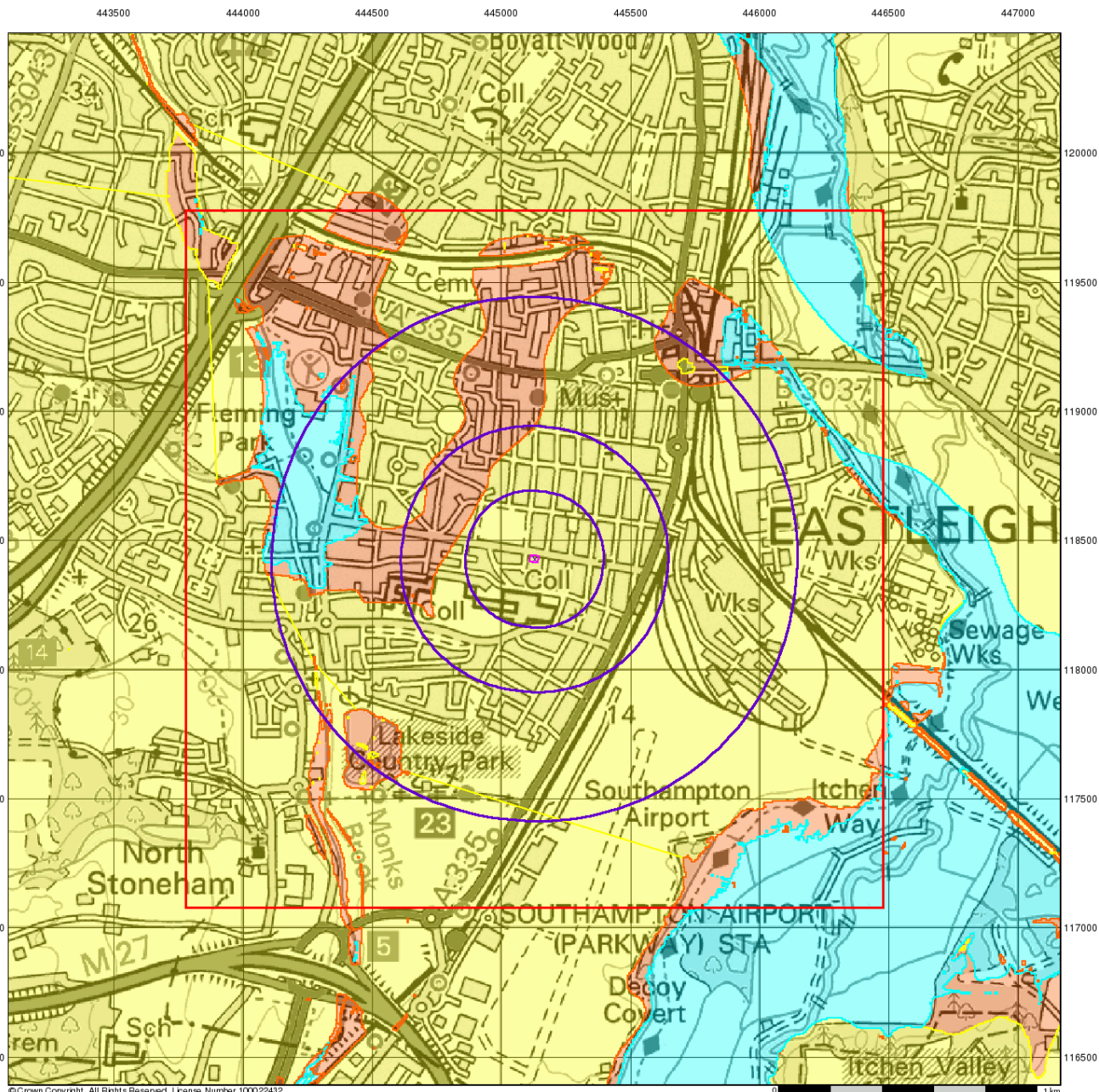
Order Number: 276366389_1_1
 Customer Ref: 10583
 National Grid Reference: 445130, 118430
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

Site Details

Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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

General

Specified Site Specified Buffer(s) Bearing Reference Point

Slice

GeoSmart Information Groundwater Flooding Risk

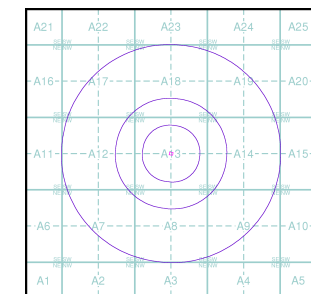
High Risk

Moderate Risk

Low Risk

Negligible Risk

GeoSmart Information Groundwater Flood Map - Slice A



Order Details

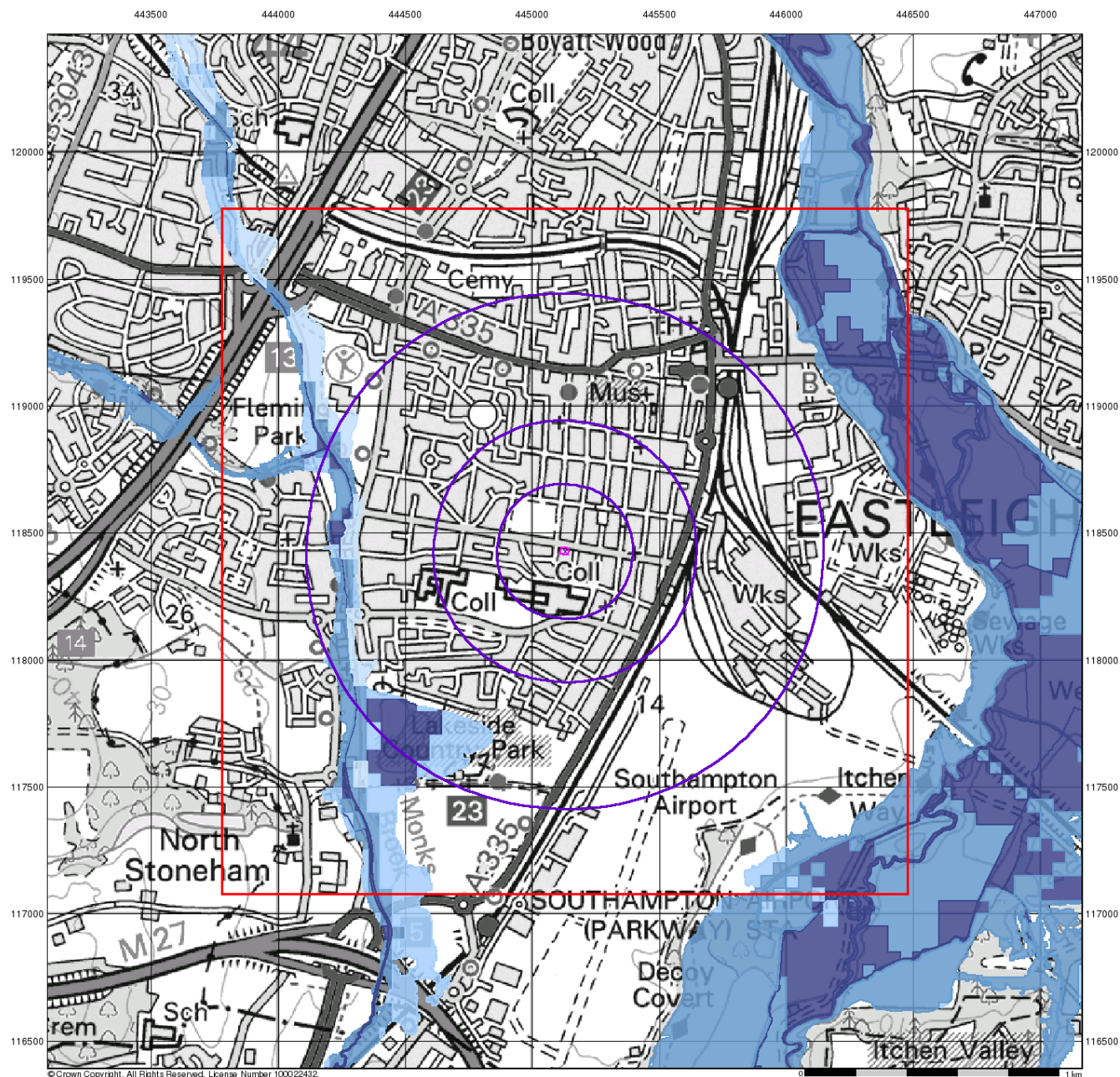
Order Number: 276366389_1_1
Customer Ref: 10583
National Grid Reference: 445130, 118430
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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

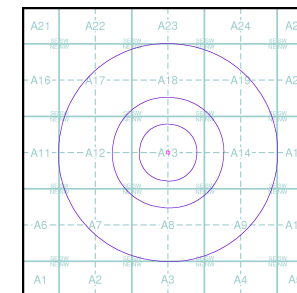
General

- ◇ Specified Site ○ Specified Buffer(s) X Bearing Reference Point
- Slice 8 Map ID

Risk of Flooding from Rivers and Sea (RoFRS)

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

EA/NRW RoFRS Data Map - Slice A



Order Details

Order Number: 276366389_1_1
 Customer Ref: 10583
 National Grid Reference: 445130, 118430
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

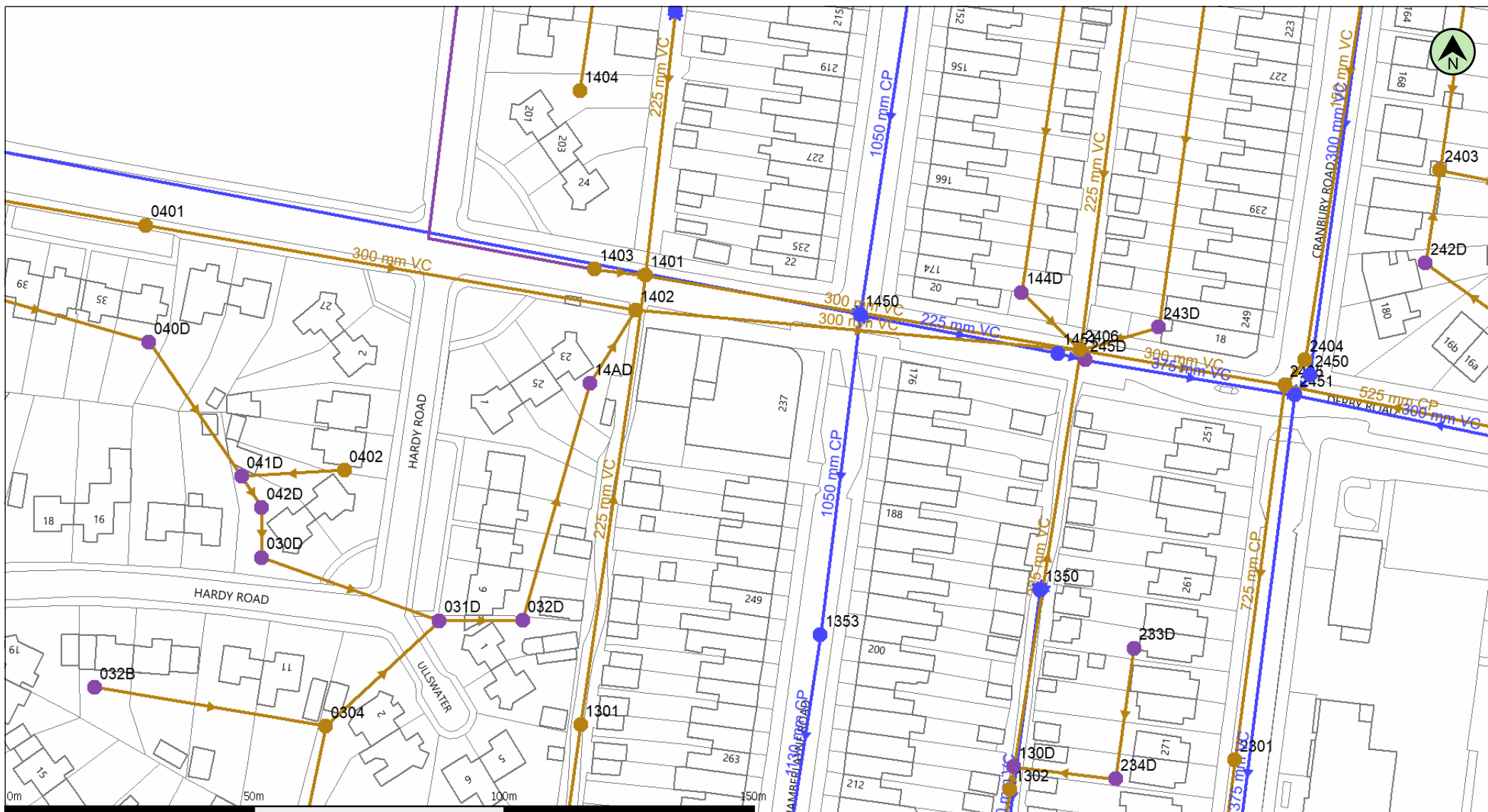
Site Details

Samsoms Gym & Crockery, Chamberlayne Road, EASTLEIGH, SO50 5HX

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Appendix D - Sewer Records



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Date: 11/08/20

Scale: 1:1080

Map Centre: 445135,118427

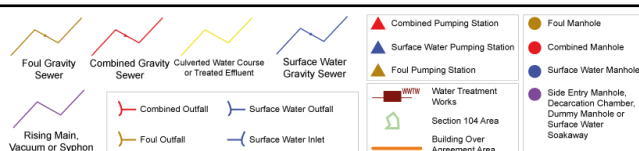
Data updated: 15/06/20

Wastewater Plan A4

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

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

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



ross.blakemore@eastleigh.gov.uk



Appendix E - Windes Results

Reuby & Stagg Ltd		Page 1
Dewey House 55 High Street Ringwood BH24 1AE		
Date 30/06/2023 08:27 File	Designed by mdewson Checked by	
Innovyze		Source Control 2019.1
<u>ICP SUDS Mean Annual Flood</u> Input Return Period (years) 2 Soil 0.450 Area (ha) 0.105 Urban 0.000 SAAR (mm) 800 Region Number Region 7 Results 1/s QBAR Rural 0.5 QBAR Urban 0.5 Q2 years 0.5 Q1 year 0.5 Q30 years 1.2 Q100 years 1.7		
©1982-2019 Innovyze		

Reuby & Staggs Ltd							Page 1
Dewey House 55 High Street Ringwood BH24 1AE				Maple Place Eastleigh SuDs Design for Planning			
Date 30/06/2023 11:47 File PLANNING DESIGN.SRCX				Designed by PJ Checked by MPD			
Innovyze				Source Control 2019.1			
Summary of Results for 2 year Return Period (+40%)							
Half Drain Time : 87 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	13.692	0.092	0.0	1.3	1.3	8.7	O K
30 min Summer	13.720	0.120	0.0	1.6	1.6	11.4	O K
60 min Summer	13.742	0.142	0.0	1.8	1.8	13.5	O K
120 min Summer	13.759	0.159	0.0	1.9	1.9	15.1	O K
180 min Summer	13.766	0.166	0.0	2.0	2.0	15.8	O K
240 min Summer	13.768	0.168	0.0	2.0	2.0	16.0	O K
360 min Summer	13.765	0.165	0.0	2.0	2.0	15.7	O K
480 min Summer	13.759	0.159	0.0	1.9	1.9	15.1	O K
600 min Summer	13.752	0.152	0.0	1.9	1.9	14.5	O K
720 min Summer	13.745	0.145	0.0	1.8	1.8	13.8	O K
960 min Summer	13.731	0.131	0.0	1.7	1.7	12.5	O K
1440 min Summer	13.710	0.110	0.0	1.5	1.5	10.4	O K
2160 min Summer	13.689	0.089	0.0	1.3	1.3	8.4	O K
2880 min Summer	13.675	0.075	0.0	1.2	1.2	7.2	O K
4320 min Summer	13.663	0.063	0.0	0.9	0.9	6.0	O K
5760 min Summer	13.656	0.056	0.0	0.8	0.8	5.3	O K
7200 min Summer	13.651	0.051	0.0	0.7	0.7	4.8	O K
8640 min Summer	13.647	0.047	0.0	0.6	0.6	4.4	O K
10080 min Summer	13.644	0.044	0.0	0.5	0.5	4.2	O K
15 min Winter	13.705	0.105	0.0	1.5	1.5	9.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	53.673	0.0	9.1	18			
30 min Summer	35.519	0.0	12.6	32			
60 min Summer	22.680	0.0	16.7	58			
120 min Summer	14.200	0.0	21.3	88			
180 min Summer	10.746	0.0	24.3	122			
240 min Summer	8.804	0.0	26.7	156			
360 min Summer	6.615	0.0	30.3	224			
480 min Summer	5.398	0.0	33.0	290			
600 min Summer	4.610	0.0	35.3	356			
720 min Summer	4.052	0.0	37.3	420			
960 min Summer	3.305	0.0	40.5	542			
1440 min Summer	2.481	0.0	45.6	782			
2160 min Summer	1.860	0.0	51.3	1148			
2880 min Summer	1.517	0.0	55.5	1500			
4320 min Summer	1.138	0.0	61.9	2208			
5760 min Summer	0.929	0.0	67.1	2936			
7200 min Summer	0.792	0.0	70.9	3672			
8640 min Summer	0.695	0.0	74.1	4408			
10080 min Summer	0.623	0.0	76.7	5136			
15 min Winter	53.673	0.0	10.4	18			
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Reuby & Stagg Ltd				Page 2				
Dewey House 55 High Street Ringwood BH24 1AE			Maple Place Eastleigh SuDs Design for Planning					
Date 30/06/2023 11:47 File PLANNING DESIGN.SRCX			Designed by PJ Checked by MPD					
Innovyze			Source Control 2019.1					
Summary of Results for 2 year Return Period (+40%)								
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status	
30 min Winter	13.737	0.137	0.0	1.7	1.7	13.0	O K	
60 min Winter	13.763	0.163	0.0	1.9	1.9	15.5	O K	
120 min Winter	13.779	0.179	0.0	2.0	2.0	17.0	O K	
180 min Winter	13.784	0.184	0.0	2.1	2.1	17.4	O K	
240 min Winter	13.783	0.183	0.0	2.1	2.1	17.4	O K	
360 min Winter	13.774	0.174	0.0	2.0	2.0	16.5	O K	
480 min Winter	13.762	0.162	0.0	1.9	1.9	15.4	O K	
600 min Winter	13.750	0.150	0.0	1.8	1.8	14.3	O K	
720 min Winter	13.739	0.139	0.0	1.8	1.8	13.2	O K	
960 min Winter	13.721	0.121	0.0	1.6	1.6	11.5	O K	
1440 min Winter	13.694	0.094	0.0	1.4	1.4	8.9	O K	
2160 min Winter	13.672	0.072	0.0	1.1	1.1	6.8	O K	
2880 min Winter	13.663	0.063	0.0	0.9	0.9	5.9	O K	
4320 min Winter	13.652	0.052	0.0	0.7	0.7	4.9	O K	
5760 min Winter	13.646	0.046	0.0	0.6	0.6	4.4	O K	
7200 min Winter	13.642	0.042	0.0	0.5	0.5	4.0	O K	
8640 min Winter	13.638	0.038	0.0	0.4	0.4	3.7	O K	
10080 min Winter	13.636	0.036	0.0	0.4	0.4	3.4	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)				
30 min Winter	35.519	0.0	14.3	31				
60 min Winter	22.680	0.0	18.9	58				
120 min Winter	14.200	0.0	24.0	94				
180 min Winter	10.746	0.0	27.5	132				
240 min Winter	8.804	0.0	30.1	170				
360 min Winter	6.615	0.0	34.1	240				
480 min Winter	5.398	0.0	37.2	310				
600 min Winter	4.610	0.0	39.8	376				
720 min Winter	4.052	0.0	42.0	440				
960 min Winter	3.305	0.0	45.7	568				
1440 min Winter	2.481	0.0	51.4	808				
2160 min Winter	1.860	0.0	57.8	1144				
2880 min Winter	1.517	0.0	62.6	1500				
4320 min Winter	1.138	0.0	69.9	2208				
5760 min Winter	0.929	0.0	75.7	2952				
7200 min Winter	0.792	0.0	80.2	3672				
8640 min Winter	0.695	0.0	83.9	4416				
10080 min Winter	0.623	0.0	87.0	5136				
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Reuby & Stagg Ltd		Page 3																														
Dewey House 55 High Street Ringwood BH24 1AE	Maple Place Eastleigh SuDs Design for Planning																															
Date 30/06/2023 11:47	Designed by PJ																															
File PLANNING DESIGN.SRCX	Checked by MPD																															
Innovyze		Source Control 2019.1																														
<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>2</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>20.000</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.350</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+40</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.108 <table> <tr> <td>Time (mins)</td> <td>Area</td> </tr> <tr> <td>From: To:</td> <td>(ha)</td> </tr> <tr> <td>0</td> <td>4 0.108</td> </tr> </table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	2	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	20.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+40	Time (mins)	Area	From: To:	(ha)	0	4 0.108
Rainfall Model	FSR	Winter Storms	Yes																													
Return Period (years)	2	Cv (Summer)	0.750																													
Region	England and Wales	Cv (Winter)	0.840																													
M5-60 (mm)	20.000	Shortest Storm (mins)	15																													
Ratio R	0.350	Longest Storm (mins)	10080																													
Summer Storms	Yes	Climate Change %	+40																													
Time (mins)	Area																															
From: To:	(ha)																															
0	4 0.108																															
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Reuby & Stagg Ltd		Page 4																		
Dewey House 55 High Street Ringwood BH24 1AE	Maple Place Eastleigh SuDs Design for Planning																			
Date 30/06/2023 11:47	Designed by PJ																			
File PLANNING DESIGN.SRCX	Checked by MPD																			
Innovyze		Source Control 2019.1																		
<u>Model Details</u> Storage is Online Cover Level (m) 14.600 <u>Complex Structure</u> <u>Cellular Storage</u> Invert Level (m) 13.600 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table border="1"> <thead> <tr> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>100.0</td> <td>0.0</td> <td>0.301</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>0.300</td> <td>100.0</td> <td>0.0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <u>Porous Car Park</u> Infiltration Coefficient Base (m/hr) 0.00000 Width (m) 15.0 Membrane Percolation (mm/hr) 1000 Length (m) 20.0 Max Percolation (l/s) 83.3 Slope (1:X) 0.0 Safety Factor 2.0 Depression Storage (mm) 5 Porosity 0.30 Evaporation (mm/day) 3 Invert Level (m) 14.150 Cap Volume Depth (m) 0.350 <u>Orifice Outflow Control</u> Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 13.600			Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	0.000	100.0	0.0	0.301	0.0	0.0	0.300	100.0	0.0			
Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)															
0.000	100.0	0.0	0.301	0.0	0.0															
0.300	100.0	0.0																		
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Dewey House 55 High Street Ringwood BH24 1AE				Maple Place Eastleigh SuDs Design for Planning			
Date 30/06/2023 11:50 File PLANNING DESIGN.SRCX				Designed by PJ Checked by MPD			
Innovyze				Source Control 2019.1			
Summary of Results for 100 year Return Period (+40%)							
Half Drain Time : 114 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	13.850	0.250	0.0	2.5	2.5	23.8	O K
30 min Summer	14.175	0.575	0.0	3.9	3.9	30.8	O K
60 min Summer	14.236	0.636	0.0	4.1	4.1	36.3	O K
120 min Summer	14.274	0.674	0.0	4.2	4.2	39.7	O K
180 min Summer	14.282	0.682	0.0	4.2	4.2	40.4	O K
240 min Summer	14.279	0.679	0.0	4.2	4.2	40.1	O K
360 min Summer	14.262	0.662	0.0	4.2	4.2	38.6	O K
480 min Summer	14.241	0.641	0.0	4.1	4.1	36.7	O K
600 min Summer	14.218	0.618	0.0	4.0	4.0	34.6	O K
720 min Summer	14.198	0.598	0.0	4.0	4.0	32.9	O K
960 min Summer	14.165	0.565	0.0	3.8	3.8	29.9	O K
1440 min Summer	13.883	0.283	0.0	2.7	2.7	26.9	O K
2160 min Summer	13.821	0.221	0.0	2.3	2.3	21.0	O K
2880 min Summer	13.779	0.179	0.0	2.0	2.0	17.0	O K
4320 min Summer	13.728	0.128	0.0	1.7	1.7	12.1	O K
5760 min Summer	13.698	0.098	0.0	1.4	1.4	9.3	O K
7200 min Summer	13.681	0.081	0.0	1.2	1.2	7.7	O K
8640 min Summer	13.671	0.071	0.0	1.1	1.1	6.7	O K
10080 min Summer	13.665	0.065	0.0	1.0	1.0	6.2	O K
15 min Winter	13.883	0.283	0.0	2.6	2.6	26.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	131.851	0.0	24.9	18			
30 min Summer	88.566	0.0	34.0	32			
60 min Summer	56.713	0.0	44.2	60			
120 min Summer	35.004	0.0	55.0	92			
180 min Summer	25.973	0.0	61.3	126			
240 min Summer	20.877	0.0	65.8	160			
360 min Summer	15.365	0.0	72.8	228			
480 min Summer	12.341	0.0	78.0	294			
600 min Summer	10.402	0.0	82.2	358			
720 min Summer	9.042	0.0	85.7	420			
960 min Summer	7.241	0.0	91.5	540			
1440 min Summer	5.284	0.0	100.1	822			
2160 min Summer	3.848	0.0	109.2	1188			
2880 min Summer	3.068	0.0	115.9	1552			
4320 min Summer	2.226	0.0	125.4	2252			
5760 min Summer	1.771	0.0	132.5	2992			
7200 min Summer	1.483	0.0	138.1	3680			
8640 min Summer	1.284	0.0	142.8	4408			
10080 min Summer	1.137	0.0	146.7	5136			
15 min Winter	131.851	0.0	28.1	18			
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Reuby & Staggs Ltd		Page 2					
Dewey House 55 High Street Ringwood BH24 1AE		Maple Place Eastleigh SuDs Design for Planning					
Date 30/06/2023 11:50 File PLANNING DESIGN.SRCX		Designed by PJ Checked by MPD					
Innovyze		Source Control 2019.1					
Summary of Results for 100 year Return Period (+40%)							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	14.220	0.620	0.0	4.0	4.0	34.8	O K
60 min Winter	14.294	0.694	0.0	4.3	4.3	41.5	O K
120 min Winter	14.332	0.732	0.0	4.4	4.4	44.9	Flood Risk
180 min Winter	14.336	0.736	0.0	4.4	4.4	45.3	Flood Risk
240 min Winter	14.325	0.725	0.0	4.4	4.4	44.3	Flood Risk
360 min Winter	14.295	0.695	0.0	4.3	4.3	41.6	O K
480 min Winter	14.259	0.659	0.0	4.2	4.2	38.3	O K
600 min Winter	14.226	0.626	0.0	4.0	4.0	35.3	O K
720 min Winter	14.195	0.595	0.0	3.9	3.9	32.6	O K
960 min Winter	14.155	0.555	0.0	3.8	3.8	29.0	O K
1440 min Winter	13.860	0.260	0.0	2.5	2.5	24.7	O K
2160 min Winter	13.785	0.185	0.0	2.1	2.1	17.6	O K
2880 min Winter	13.741	0.141	0.0	1.8	1.8	13.3	O K
4320 min Winter	13.693	0.093	0.0	1.4	1.4	8.8	O K
5760 min Winter	13.671	0.071	0.0	1.1	1.1	6.7	O K
7200 min Winter	13.663	0.063	0.0	0.9	0.9	5.9	O K
8640 min Winter	13.657	0.057	0.0	0.8	0.8	5.4	O K
10080 min Winter	13.652	0.052	0.0	0.7	0.7	5.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	88.566	0.0	38.3	31			
60 min Winter	56.713	0.0	49.8	60			
120 min Winter	35.004	0.0	61.8	98			
180 min Winter	25.973	0.0	68.9	136			
240 min Winter	20.877	0.0	73.9	172			
360 min Winter	15.365	0.0	81.7	246			
480 min Winter	12.341	0.0	87.6	314			
600 min Winter	10.402	0.0	92.3	380			
720 min Winter	9.042	0.0	96.3	442			
960 min Winter	7.241	0.0	102.8	550			
1440 min Winter	5.284	0.0	112.4	852			
2160 min Winter	3.848	0.0	122.7	1216			
2880 min Winter	3.068	0.0	130.2	1584			
4320 min Winter	2.226	0.0	141.0	2288			
5760 min Winter	1.771	0.0	149.1	2944			
7200 min Winter	1.483	0.0	155.4	3672			
8640 min Winter	1.284	0.0	160.8	4408			
10080 min Winter	1.137	0.0	165.3	5144			
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Appendix F - Proposed Drainage Layout



- LEGEND**
- - DENOTES PROPOSED SURFACE WATER MANHOLE
 - - DENOTES PROPOSED FOUL WATER MANHOLE
 - 150mm @ 1:150 — - DENOTES BELOW GROUND SURFACE WATER DRAINAGE
 - 150mm @ 1:150 — - DENOTES BELOW GROUND FOUL DRAINAGE
 - - DENOTES PROPOSED FOUL WATER INSPECTION CHAMBER AND LATERAL (450mm DIA)
 - - DENOTES PROPOSED FOUL WATER INSPECTION CHAMBER AND LATERAL (450mm DIA)
 - - 100mm PERFORATED SUB-BASE DRAIN
 - - DENOTES LAND DRAIN
 - - EXISTING FOUL SEWER
 - - DENOTES EXISTING FOUL SEWER DIVESTED (S116) AND DIVERTED (S104).
 - - DENOTES POROUS PAVING
 - - DENOTES ATTENUATION TANK

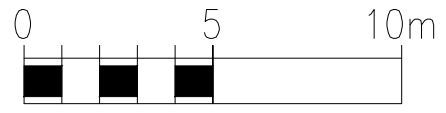
- NOTES**
- THIS DRAWING IS COPYRIGHT.
 - THE CONTRACTOR AND HIS SUBCONTRACTOR ARE TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO MAKING SHOP DRAWINGS OR COMMENCING MANUFACTURE.
 - DO NOT SCALE THIS DRAWING. THE CONTRACTOR IS TO BRING TO THE NOTICE OF THE ENGINEER ANY DISCREPANCIES CONTAINED IN THIS DRAWING PRIOR TO WORK COMMENCEMENT.
 - ALL 150mm AND 225mm DIAMETER PIPES TO BE EXTRA STRENGTH VITRIFIED CLAY PIPES.
 - ALL PIPES OF 300mm DIAMETER OR GREATER TO BE CLASS M CONCRETE.
 - ALL PIPE MATERIALS TO BE CONSISTENT BETWEEN MANHOLES.
 - ALL HIGHWAY WORKS TO BE CARRIED OUT IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDELINES, THE SPECIFICATION FOR HIGHWAY WORKS 1998.
 - ALL ADAPTABLE DRAINAGE WORKS TO BE CONSTRUCTED AS DETAILED IN THE CODE FOR ADOPTION DESIGN AND CONSTRUCTION GUIDANCE AND THAMES WATER'S LOCAL PRACTICE.
 - FOR CONSTRUCTION DETAILS OF MANHOLES AND SEWERS REFER TO DESIGN AND CONSTRUCTION GUIDELINES AND UNDERTAKERS STANDARD DETAILS WHICH CAN BE OBTAINED FROM THE LOCAL OFFICE.
 - INVERT LEVELS OF EXISTING SEWERS TO BE CONFIRMED ON SITE BEFORE ANY SEWER WORK UNDERTAKEN. ANY DISCREPANCIES FOUND SHOULD BE NOTIFIED TO ENGINEERS.
 - WHERE SEWERS HAVE LESS THAN 1.2m OF COVER UNDER ROADS AND 0.9m COVER ELSEWHERE PIPES ARE TO HAVE A 150mm CONCRETE BED AND SURROUND.
 - PLASTIC CHAMBERS AND RINGS SHALL COMPLY WITH BS EN 13598-1 AND BS EN 13598-2 OR HAVE EQUIVALENT INDEPENDENT APPROVAL, TO TABLE 11 OF APPROVED DOCUMENT H1 OF THE BUILDING REGULATIONS 2010.
 - ORIENTATION OF ALL ACCESS AND INSPECTION CHAMBERS TO BE IN ACCORDANCE WITH NHBC TECHNICAL GUIDANCE 5.3/01
 - WHERE HOUSE DRAINAGE IS TAKEN THROUGH BLOCK CARE IS TO BE TAKEN THAT FOUNDATION LEVELS AND DRAINAGE RUNS DO NOT CLASH.
 - ALL ADAPTABLE MANHOLES TO HAVE A MINIMUM CLEAR OPENING OF 675mmx675mm AND GRADE D400 UNO.
 - ALL BELOW GROUND DRAINAGE TO BE 100mmØ UNLESS OTHERWISE INDICATED WITH A MIN. GRADIENT AS FOLLOWS:-

S.W. : 100mm Dia.	1:100
S.W. : 150mm Dia.	1:150
F.W. : 100mm Dia.	1:80
F.W. : 150mm Dia.	1:150
 - ALL ADAPTABLE DRAINAGE MATERIALS SHOULD COMPLY WITH THE REQUIREMENTS OF PART 8 CIVIL ENGINEERING SPECIFICATION INCLUDED WITH DESIGN AND CONSTRUCTION GUIDELINES

HEALTH & SAFETY:

ALL WORKS TO BE CARRIED OUT BY A CONTRACTOR COMPETENT TO UNDERTAKE THE CONSTRUCTION OF WORKS AS INDICATED ON THIS DRAWING. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE JOB SPECIFIC RISK ASSESSMENT. THE HAZARDS NOTED ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

PRELIMINARY



P1 rev	30/06/23 date	PRELIMINARY ISSUE description	JP initials		
Project					
MAPLE PLACE, EASTLEIGH					
Client / Architect		Title			
		DRAINAGE STRATEGY			
 REUBY & STAGG LTD. CONSULTING CIVIL & STRUCTURAL ENGINEERS				Hampshire Office: Dewey House, 55 High Street, Ringwood, Hampshire BH24 1AE Telephone: 01425 484400 Facsimile: 01425 484409 Email: admin@reuby-stagg.co.uk	
date	JUNE 23	scale	1:100		
drawn	PJ	size	A1		
checked	MD	project no.	10583		
		drawing no.	350		
		revision	P1		

Appendix G - HCC SW Checklist

This document should be read in conjunction with the Surface Water Checklist Guidance document located on our website

SURFACE WATER SUBMITTED INFORMATION

Some applications have a considerable number of documents associated with them. To make sure we are reviewing the correct documentation, please ensure the following table is completed.

Document / Drawing Title	Document / Drawing Reference (and revision)
Maple Place, Eastleigh – Flood Risk Assessment and Drainage Strategy	-

PRE-APPLICATION / PREVIOUS PLANNING APPLICATIONS

If this site was subject to a previous planning application i.e. an outline application in relation to a wider strategic site, pre-application enquiry or if you are reliant on information previously submitted, please provide the relevant reference numbers below.

Planning / Pre-app Titles	Reference Number
N/A	N/A

ORDINARY WATERCOURSE CONSENTING – to be completed and signed by the applicant

I confirm that I have reviewed the site and there are no watercourses / ditches / flow routes that will be affected or amended by the works. I understand that works to any of these features without consent constitutes a criminal offence and breaches the Land Drainage Act 1991.

Name: P Jenkins

Job Title: Senior Engineer

Signature:



SURFACE WATER CHECKLIST

Site Name		Maple Place, Eastleigh		Planning ref	
Ref	SURFACE WATER REQUIREMENTS	PLANNING STAGE		SUBMISSION CHECKLIST	
		OUTLINE PLANNING	DETAILED PLANNING	Included Yes/Not	DOCUMENT Ref
	EXISTING INFORMATION	X	X		
1	Topographical Survey.	X	X	Yes	Inc in FRA&DS
2	Existing Drainage	X	X	Yes	Inc in FRA&DS
3	Discharge Rates and Volumes	X	X	Yes	Inc in FRA&DS
4	Existing Overland Flow Paths	X	X	No	Demolished site
5	Site Investigations	X	X	Yes	Inc in FRA&DS
	OUTLINE DRAINAGE STRATEGY				
6	Confirmation of a discharge location	X	X	Yes	Inc in FRA&DS
7	Outline Surface Water Calculations	X		Yes	Inc in FRA&DS
8	Flood Risk Assessment / Drainage Strategy	X	X	Yes	Inc in FRA&DS
9	Potential Flood Risk	X	X	Yes	Inc in FRA&DS
10	Outline Drainage Layout Plan	X		Yes	Inc in FRA&DS
	DETAILED DRAINAGE STRATEGY		X		
11	Detailed Drainage Assessment		X	Yes	Inc in FRA&DS
12	Detailed Drainage Layout Drawings		X	Yes	Inc in FRA&DS
13	Detailed Hydraulic Calculations		X	Yes	Inc in FRA&DS
14	Water Treatment		X	Yes	Inc in FRA&DS
15	Exceedance Flows		X	Yes	Inc in FRA&DS
16	Urban Creep		X	No	Not req'd (apartments)
17	Maintenance		X	Yes	Inc in FRA&DS