

FloodSmart



Flood Risk Assessment

Site Address

Former VASA Club
283 White Moss Road
Manchester
M9 6NZ

Date

2022-02-02

Report Status

FINAL

Grid Reference

386064, 403349

Site Area

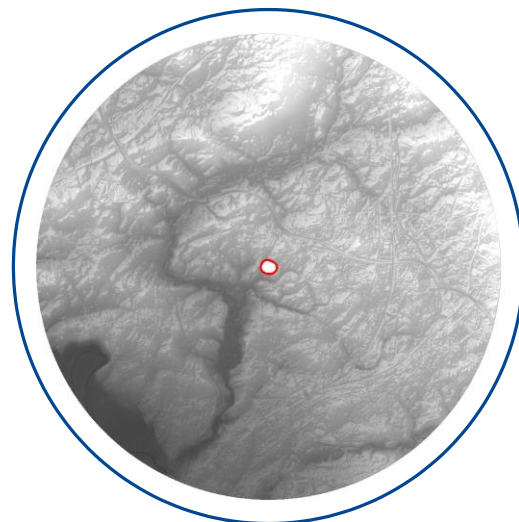
0.41 ha

Report Prepared for

AIY Limited

Report Reference

76220R1



RISK – Negligible to Medium

The Site is located within fluvial Flood Zone 1 (low probability), and within an area defined as being at Very Low risk. The Site has a Very Low to Medium risk of surface water flooding and a Negligible risk of groundwater flooding.

Report Author

Nicholas Fisher

Consultant

Report Checker & Reviewer

Mike Piotrowski

Principal Hydrologist

GeoSmart Information Ltd
Suite 9-11, 1st Floor, Old Bank Buildings,
Bellstone, Shrewsbury, SY1 1HU
+44(0)1743 298 100
info@geosmartinfo.co.uk
www.geosmartinfo.co.uk

1. Executive summary

A review has been undertaken of national environmental data sets to assess the flood risk to the Site from all sources of flooding in accordance with The National Planning Policy Framework (NPPF) (2021) and National Planning Practice Guidance (NPPG) (2014). A site-specific flood risk assessment, to assess the flood risk to and from the development Site, is provided within this concise interpretative report written by an experienced GeoSmart consultant. Baseline flood risk and residual risks that remain after the flood risk management and mitigation measures are implemented are summarised in the table below.

Site analysis

Source of Flood Risk	Baseline	After Mitigation
River (fluvial) and Sea (coastal/tidal) flooding	Very Low	N/A
Surface water (pluvial) flooding	Very Low to Medium	Very Low to Low
Groundwater flooding	Negligible	N/A
Other flood risk factors present	Yes*	N/A

*A potential lost river under the Site has been identified in the SFRA (JBA, 2011) further Site investigation should be carried out to locate the watercourse prior to development starting.

Summary of existing and proposed development

The Site was previously used within a commercial capacity as a social club, including associated access, car parking and landscaping.

Development proposals comprise the demolition of the existing building and the construction of multiple dwellings, including the formation of associated landscaping and retention of existing access. Site plans are included within Appendix A.

Summary of flood risks

The flood risks from all sources have been assessed as part of this report and are as follows:

According to the Environment Agency's (EA) Flood Map for Planning Purposes, the Site is located within a fluvial Flood Zone 1 (low probability).

According to the EA's Risk of Flooding from Rivers and Sea (RoFRS) map, which considers the type, condition and crest height of flood defences, the Site has a Very Low risk of flooding from Rivers and the Sea.

A potential lost watercourse has been identified under the Site through the Manchester City, Salford City and Trafford Councils Level 2 Hybrid SFRA (2011).

According to the EA's Risk of Flooding from Surface Water (pluvial) flood mapping, the Site is at a variable risk of pluvial flooding ranging from Very Low to Medium.

Groundwater Flood Risk screening data indicates there is a Negligible risk of groundwater flooding at the surface in the vicinity of the Site during a 1 in 100 year event.

The risk of flooding from artificial (man-made) sources such as reservoirs, sewers and canals has been assessed:

- The EA's Risk of Flooding from Reservoir map confirms the Site is not at risk of reservoir flooding.
- Ordnance Survey (OS) data confirms there are no canals near to the Site.

The risk of flooding from artificial sources stated above are considered to be Negligible, but the risk of flooding from sewers cannot be determined due to a lack of data.

The risk to the development has been assessed over its expected 100-year lifetime, including appropriate allowances for the impacts of climate change. More extreme weather events could increase the risk to the Site from potential for surface water. Site specific assessment indicates risk to the Site will increase significantly and appropriate mitigation measures are proposed.

Recommendations / Next steps

Recommendations for flood mitigation are provided below, based upon the proposed development and the flood risk identified at the Site:

- Finished floor levels of the proposed development in the south west of the Site should be set at least 0.3 m above the maximum 1 in 100 year event flood level to 79 mAOD. FFL's of properties in the south east should be set 0.6m above ground levels to c. 79.1 mAOD (Appendix C). Ground levels should be designed to channel any overland flows, which flow into the Site, away from the development and Site drainage systems;
- A Sustainable Drainage Strategy (SuDS) has been developed for the Site by GeoSmart (ref:76220.01), for effective management of surface water runoff over the lifetime of the proposed development.

GeoSmart recommend the mitigation measures discussed within this report are considered as part of the proposed development where possible and evidence of this is provided to the Local Planning Authority as part of the planning application.

2. Introduction



Background and purpose

A site-specific flood risk assessment has been undertaken, to assess the flood risk to and from the development Site. This assessment has been undertaken by firstly compiling information concerning the Site and the surrounding area. The information gathered was then used to construct a 'conceptual site model', including an understanding of the appropriateness of the development as defined in the NPPF (2021) and the source(s) of any flood risk present. Finally, a preliminary assessment of the steps that can be taken to manage any flood risk to the development was undertaken.

This report has been prepared with reference to the NPPF (2021) and NPPG (2014).

"The National Planning Policy Framework set out the Government's planning policies for England and how these are expected to be applied" (NPPF, 2021).

The NPPF (2021) and NPPG (2014) promote a sequential, risk based approach to the location of development. This also applies to locating a development within a Site which has a variable risk of flooding.

"This general approach is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. The aim should be to keep development out of medium and high risk flood areas (Flood Zones 2 and 3) and other areas affected by other sources of flooding where possible" (NPPG, 2014).

The purpose of this report is to provide clear and pragmatic advice regarding the nature and potential significance of flood hazards which may be present at the Site.

Report scope

In accordance with the requirements set out within NPPG 2014 (Paragraph: 030 Reference ID: 7-030-20140306), a thorough review of a commercially available flood risk report and EA supplied data indicating potential sources of flood risk to the Site from rivers and coastal sources, surface run-off (pluvial), groundwater and reservoirs, including historical flood information and modelled flood extent. Appropriate measures are recommended to manage and mitigate the flood risk to the property.

Information obtained from the EA and a review of the Manchester City, Salford City and Trafford Level 1 Strategic Flood Risk Assessment, 2011 (SFRA), and Manchester City, Salford City and Trafford Level 1 Strategic Flood Risk Assessment (2011) are used to ascertain local flooding issues and, where appropriate, identify information to support a Sequential and/or Exception test required as part of the NPPF (2021).

The existing and future flood risks to and from the Site from all flood sources is assessed in line with current best practice using the best available data. The risk to the development has been assessed over its expected lifetime, including appropriate allowances for the impacts of climate change. Residual risks that remain after the flood risk management and mitigation

measures are implemented, are considered with an explanation of how these risks can be managed to keep the users of the development safe over its lifetime.

An indication of whether the Site will potentially increase flood risk elsewhere is provided, including where the proposed development increases the building footprint at the Site. A drainage strategy to control runoff can be commissioned separately if identified as a requirement within this report.

Report limitations

It is noted that the findings presented in this report are based on a desk study of information supplied by third parties. Whilst we assume that all information is representative of past and present conditions, we can offer no guarantee as to its validity and a proportionate programme of site investigations would be required to fully verify these findings.

The basemap used is the OS Street View 1:10,000 scale, however the Site boundary has been drawn using BlueSky aerial imagery to ensure the correct extent and proportion of the Site is analysed.

This report excludes consideration of potential hazards arising from any activities at the Site other than normal use and occupancy for the intended land uses. Hazards associated with any other activities have not been assessed and must be subject to a specific risk assessment by the parties responsible for those activities.

Datasets

The following table shows the sources of information that have been consulted as part of this report:

Table 1. Datasets consulted to obtain confirmation of sources of flooding and risk

Source of flooding	Datasets consulted			
	Commercial Flood Maps	SFRA*	Environment Agency	OS Data
Historical	X	X	X	
Fluvial/tidal	X	X	X	
Surface water (pluvial)	X	X	X	

Source of flooding	Datasets consulted			
	Commercial Flood Maps	SFRA*	Environment Agency	OS Data
Groundwater	X	X		
Sewer		X		
Culvert/bridges		X		X
Reservoir		X	X	

*The SFRA and local guidance have been used to inform this report as referenced in Section 6.

3. Site analysis

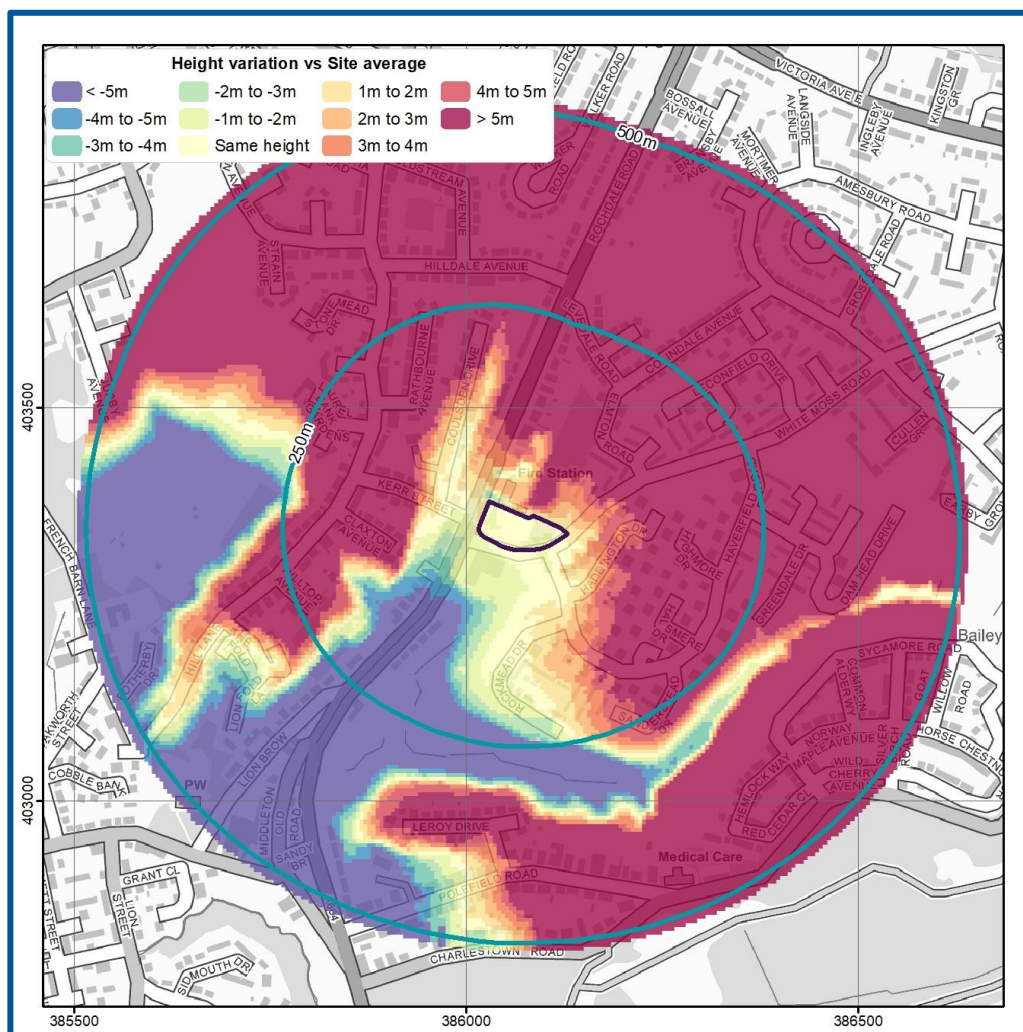


Site information

The Site is located in Manchester in a setting of commercial and residential land use at National Grid Reference SD 86064 03349. Site plans & drawings are provided in Appendix A.

The general ground levels on the Site are between 76.6 and 80.7 mAOD. This is based on EA elevation data obtained for the Site to a 1 m resolution with a vertical accuracy of ± 0.15 m (Appendix B).

Figure 1. Site Location and Relative Elevations (GeoSmart, 2022).



Contains Ordnance Survey data © Crown copyright and database right 2022

Development

The Site was previously used within a commercial capacity as a social club including associated access, car parking and landscaping.

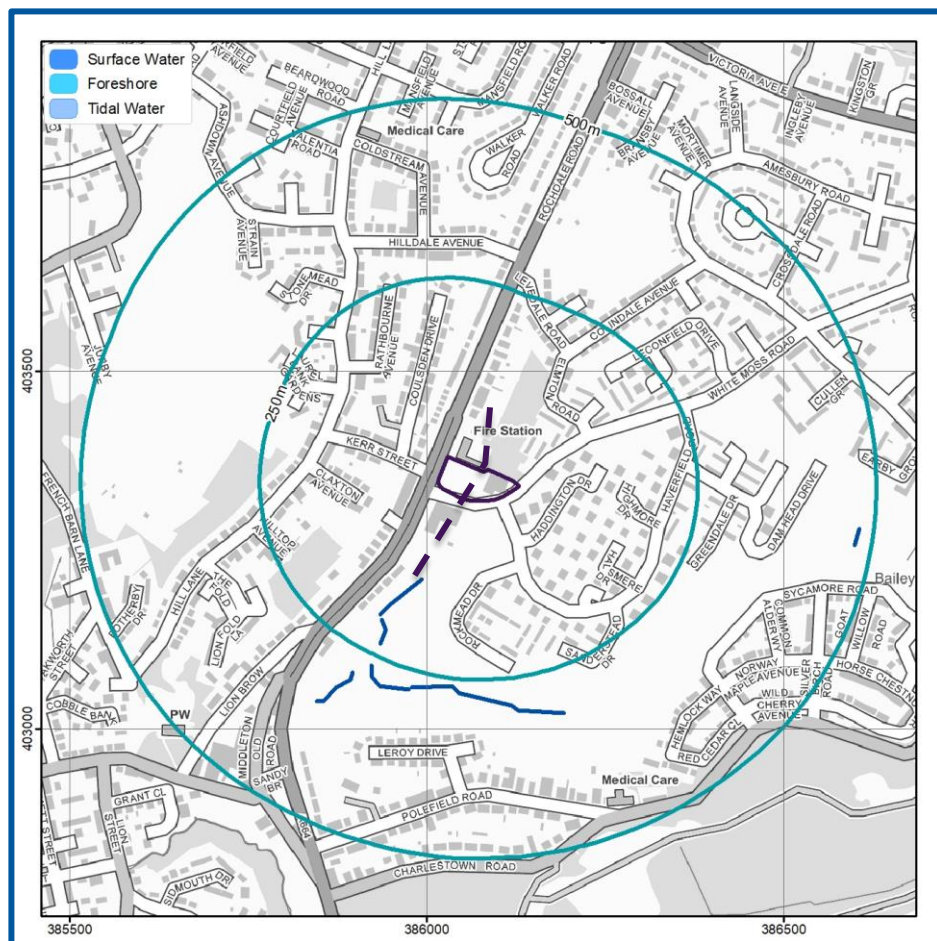
Development proposals comprise the demolition of the existing building and the construction of multiple dwellings, including the formation of associated landscaping and retention of existing access. Site plans are included within Appendix A.

The effect of the overall development will result in an increase in number of occupants and/or users of the Site and will result in the change of use, nature or times of occupation. According to Table 2 of the NPPG (2014), the vulnerability classification of the existing development is Less Vulnerable and proposed development is More Vulnerable. The estimated lifespan of the development is 100 years.

Hydrological features

According to Ordnance Survey (OS) mapping included in the following figure, there are numerous surface water features within 500 m of the Site.

Figure 2. Surface water features (EA, 2022)



Contains Ordnance Survey data © Crown copyright and database right 2022
Environment Agency copyright and database rights 2022

A Lost watercourse is potentially located beneath the Site (dashed line in figure 2) (Level 2 SFRA, 2011). (Appendix D).

There are numerous drainage ditches south of the Site with the closest being within 150 m.

A drainage ditch is located c. 495 m east of the Site.

Hydrogeological features

British Geological Survey (BGS) mapping indicates the underlying superficial geology (Figure 3) consists of c.54% Glaciofluvial deposits (GFSDD) (BGS, 2022) and is classified as a Secondary (A) Aquifer (EA, 2022). The remaining 64% of the Site is underlain by Till (TILLD) which is classified as being a secondary (undifferentiated) Aquifer (EA, 2022).

Figure 3. Superficial Geology (BGS, 2022)



Contains Ordnance Survey data © Crown copyright and database right 2022
Contains British Geological Survey materials © NERC 2022

BGS mapping indicates the underlying bedrock geology (Figure 4) consists of the Chester Sandstone Formation (CHES) (BGS, 2022) and is classified as a Principal Aquifer (EA, 2022).

Figure 4. Bedrock Geology (BGS, 2022)



Contains Ordnance Survey data © Crown copyright and database right 2022
Contains British Geological Survey materials © NERC 2022

The Site does not lie within a groundwater Source Protection Zone (SPZ) (EA, 2022).

A review of the BGS borehole database (BGS, 2022) indicates there are relevant boreholes within the vicinity of the Site from which the mapped geology can be confirmed.

The nearest and most relevant borehole (ref: SD80SE1006) is 65 m to the south of the Site boundary in the area defined as glaciofluvial deposits at an elevation of 78 mAOD, and indicates 0.57 m of dark soil, underlain by 2.2 m fairly fine, well graded silty sand, underlain by 1.83 m medium well graded brown sand, underlain by 2.7 m of fine well graded sand, underlain by 3.2 m medium well graded sand, underlain by 0.6 m coarse well graded brown sand with some gravel. Groundwater levels are recorded at 7.3 m below ground level on date, subject to seasonal variations.

Borehole (ref: SD80SE1003) is c.150 m northeast and is situated in the area defined as TILLD at an elevation of 95.7 mAOD. The Borehole indicates the Site is underlain by clay to a depth of 7.3 m bgl.

The hydrogeological characteristics suggest there is potential for a groundwater table beneath the Site.

Groundwater levels may rise in the bedrock and superficial aquifer (GFSDD) in response to prolonged rainfall recharge which may cause an unusually high peak in groundwater levels during some years, subject to hydraulic continuity between the groundwater system and the Site.

4. Flood risk to the development



Historical flood events

According to the EA's historical flood map no historical flood events have been recorded at the Site (EA, 2022).

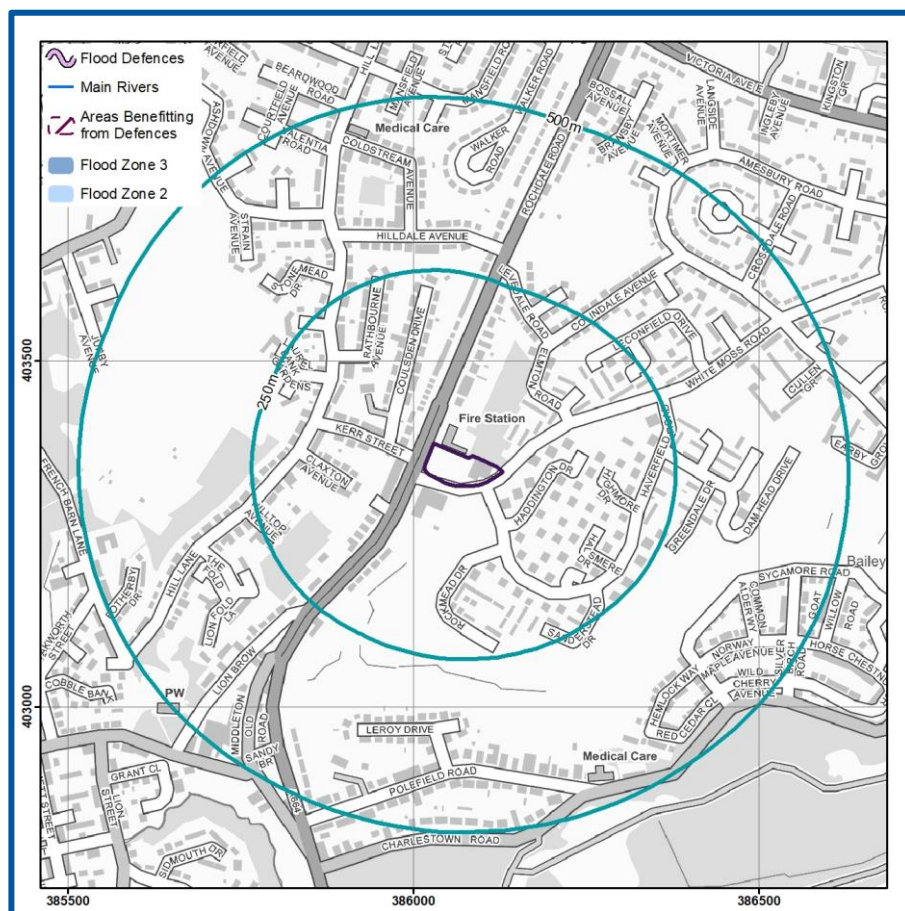
According to the SFRA, there have been no records of historic flooding at the Site (JBA, 2011).

The purpose of historical flood data is to provide information on where and why flooding may have occurred in the past. The absence of any recorded events does not mean flooding has never occurred on-Site or that flooding will never occur at the Site.

Rivers (fluvial) / Sea (coastal/tidal) flooding

According to the EA's Flood Map for Planning Purposes (Figure 5), the Site is located within fluvial Flood Zone 1 and is therefore classified as having a Low probability of fluvial flooding. The Site lies approximately 550 m to the north east of the nearest land within Flood Zones 2 and 3.

Figure 5. EA Flood Map for Planning Purposes (EA, 2022)



Contains Ordnance Survey data © Crown copyright and database right 2022
Environment Agency copyright and database rights 2022

As defined in the NPPF (2021):

Ignoring the presence of any defences, land located in a Flood Zone 1 is considered to have a Low probability of flooding, with less than a 1 in 1000 annual probability of fluvial or coastal flooding in any one year.

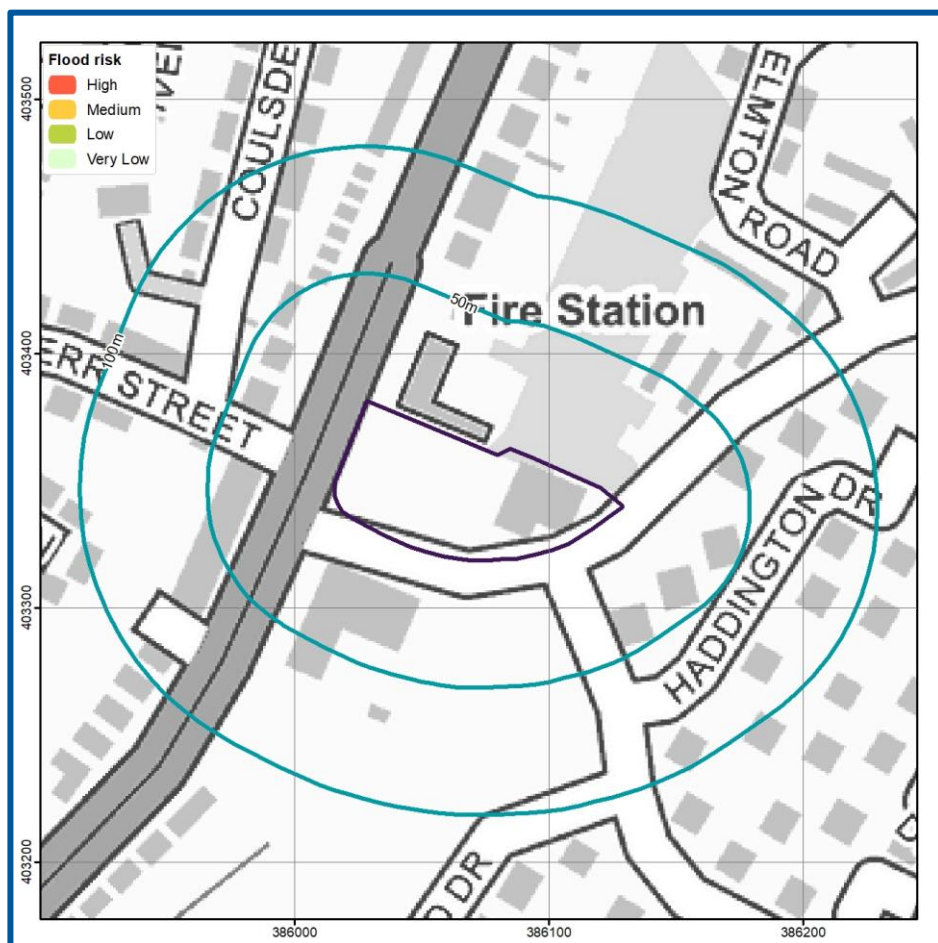
Development of all uses of land is appropriate in this zone (see glossary for terminology).

Flood risk including the benefit of defences

The type and condition of existing flood defences influence the 'actual' risk of fluvial flooding to the Site, albeit the long-term residual risk of flooding (ignoring the defences) should be considered when proposing new development.

According to the EA's Risk of Flooding from Rivers and the Sea (RoFRS) mapping (Figure 6), which considers the crest height, standard of protection and condition of defences, the flood risk from Rivers and the Sea is Very Low.

Figure 6. Risk of Flooding from Rivers and Sea map (EA, 2022)



Contains Ordnance Survey data © Crown copyright and database right 2022
Environment Agency copyright and database rights 2022

Surface water (pluvial) flooding

Surface water flooding occurs when intense rainfall exceeds the infiltration capacity of the ground and overwhelms the drainage systems. It can occur in most locations even at higher elevations and at significant distances from river and coastal floodplains.

According to the EA's Risk of Flooding from Surface Water (pluvial) flood mapping, the Site is at a variable risk of pluvial flooding ranging from Very Low to High.

Guidance

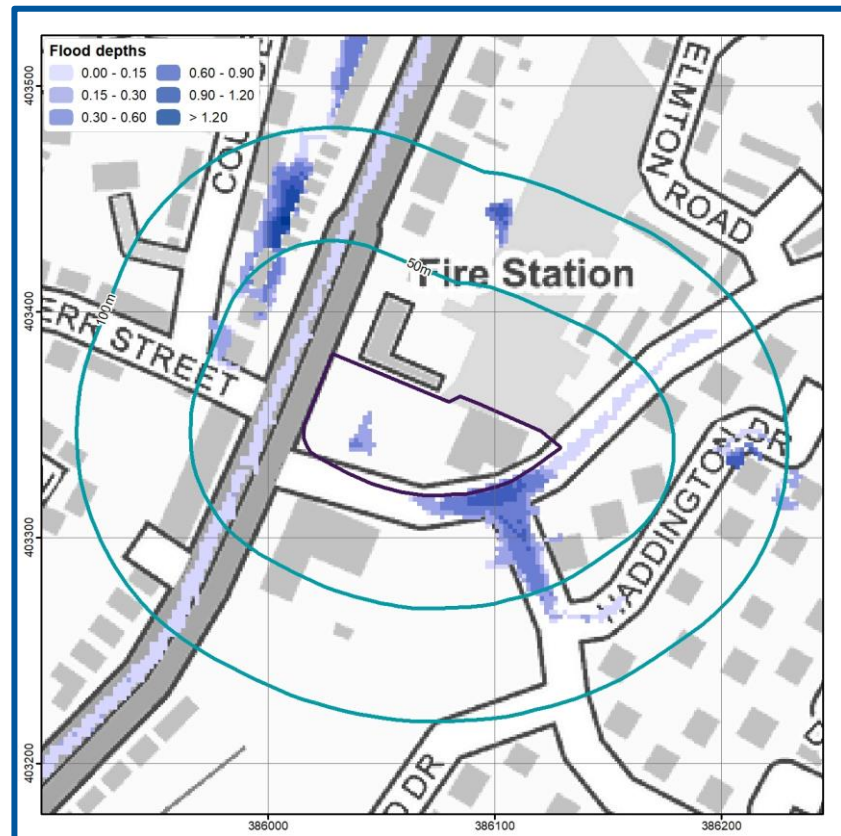
According to EA's surface water flood risk map the Site is at:

- Very Low risk - chance of flooding of less than 1 in 1000 (0.1%).
- Low risk - chance of flooding of between a 1 in 1000 & 1 in 100 (0.1% and 1%).
- Medium risk - chance of flooding of between a 1 in 100 and 1 in 30 (1% and 3.3%).
- High risk - chance of flooding of greater than 1 in 30 (3.3%).

Figure 7 confirms the extent and depth of flooding during a 1% AEP (1 in 100 year - medium risk) event. This confirms areas of the Site towards the centre which are at Medium risk of surface water flooding where depths could range between 0 m and 0.6 m above ground level.

The flooding caused in this event is due to an area of localised low topography.

Figure 7. EA Medium surface water flood risk map (EA, 2022)



Contains Ordnance Survey data © Crown copyright and database right 2022
Environment Agency copyright and database rights 2022

Guidance

According to EA's surface water flood risk map the following advisory guidance applies to the Site:

Flood Depth

- 0.15 to 0.3 m - Flooding would: typically exceed kerb height, likely exceed the level of a damp-proof course, cause property flooding in some areas
- 0.3 to 0.9 m - Flooding is likely to exceed average property threshold levels and cause internal flooding. Resilience measures are typically effective up to a water depth of 0.60m above floor level.

Analysis of OS mapping, ground elevation data and the EA's pluvial flow route mapping in the 1 in 100 year event confirms the Site is not located on a potential overland flow route during a Medium risk scenario.

Map SS 4.1C of the SFRA indicates the Site is at intermediate and low susceptibility of surface water flooding (JBA, 2011). (Appendix D).

Climate change may lead to an increase in rainfall intensity which affects river levels, land and urban drainage systems. Rainfall intensity for small and urban catchments may increase from 5 to 20% (central estimate) or 10% to 40% (Upper estimate) over the period to 2115 (EA, 2022). The Site is susceptible to overland flow and/or surface water flooding which may be increased as a result of climate change.

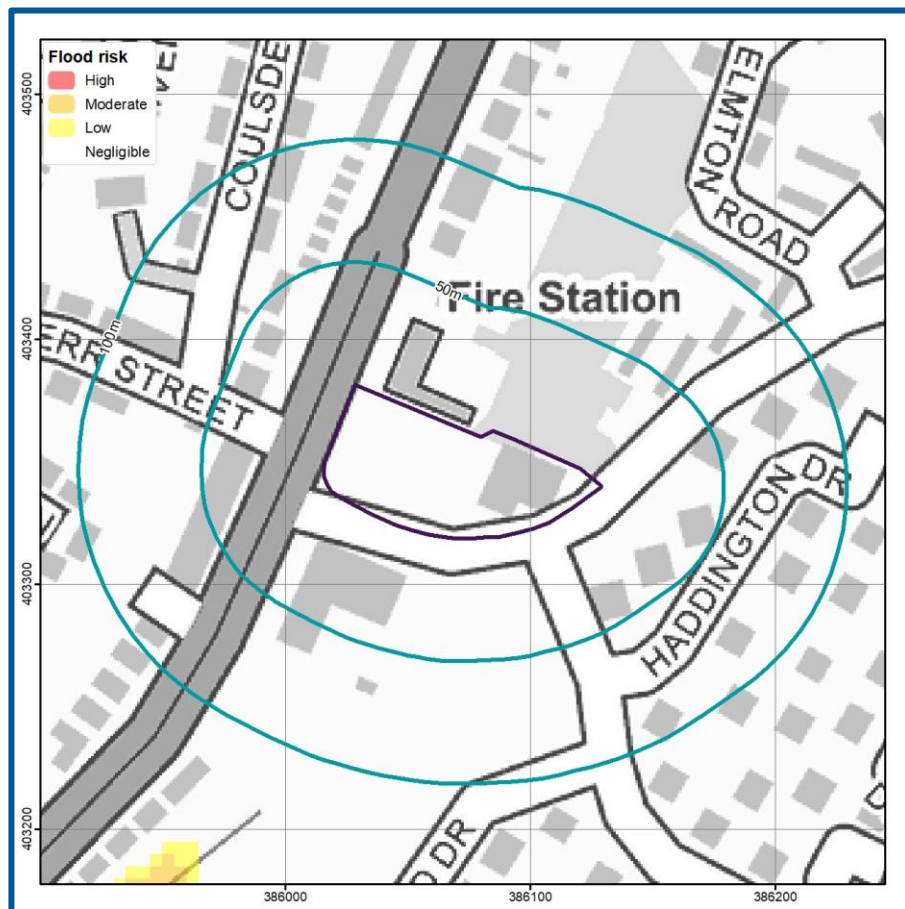
On-Site surface water drainage systems should be designed appropriately to manage run-off from the proposed development.

Groundwater flooding

Groundwater flooding occurs when sub-surface water emerges from the ground at the surface or into Made Ground and structures. This may be as a result of persistent rainfall that recharges aquifers until they are full; or may be as a result of high river levels, or tides, driving water through near-surface deposits. Flooding may last a long time compared to surface water flooding, from weeks to months. Hence the amount of damage that is caused to property may be substantially higher.

Groundwater Flood Risk screening data (Figure 8) indicates there is a Negligible risk of groundwater flooding at surface in the vicinity from permeable bedrock and superficial during a 1 in 100 year event.

Figure 8. GeoSmart GW5 Groundwater Flood Risk Map (GeoSmart, 2022)



Contains Ordnance Survey data © Crown copyright and database right 2022
Contains British Geological Survey materials © NERC 2022

Mapped classes combine likelihood, possible severity and the uncertainty associated with predicting the subsurface system. The map is a national scale screening tool to prompt site-specific assessment where the impact of groundwater flooding would have significant adverse consequences. Mapping limitations and a number of local factors may reduce groundwater flood risk to land and property even where it lies within mapped groundwater flood risk zones, which do not mean that groundwater floods will occur across the whole of the risk area

A site-specific assessment has been undertaken to refine the groundwater risk screening information on the basis of site-specific datasets (see Section 3) including BGS borehole data, and the EA's fluvial and tidal floodplain data (where available) to develop a conceptual groundwater model. The risk rating is refined further using the vulnerability of receptors including occupants and the existing and proposed Site layout, including the presence of basements and buried infrastructure. The presence of any nearby or on-Site surface water features such as drainage ditches, which could intercept groundwater have also been considered.

Based on a review of (limited) site specific data:

- Drawing GW_2.1 OF The SFRA indicates the Site is not at risk of groundwater flooding (JBA, 2011). (Appendix D).
- Given the mapped and anticipated geological conditions, groundwater levels may rise in the bedrock and superficial aquifer in response to high prolonged rainfall recharge events, although there is a negligible potential for this to emerge above the ground surface.
- Spring lines which can give rise to groundwater seepage and overland flows have not been identified in the vicinity of the Site.
- Topographic low points have been identified on-Site where groundwater discharge may accumulate and areas of surface water flooding identified on the Site may be exacerbated by groundwater flooding, albeit the potential for groundwater emergence is negligible.
- The local topography is such that the development threshold is likely to be higher than the area where groundwater emerges in adjacent low points.
- Borehole/geological data indicates the groundwater table is significantly below the Site including an allowance for seasonal variations.
- The risks can be higher for basements, buried infrastructure and soak-away systems which may be affected by high groundwater levels, although no basements are proposed, and the groundwater table is likely to be of sufficient depth so that these systems remain unaffected.

On the basis of the site-specific assessment the groundwater flood risk is considered to be Negligible.

Guidance

Negligible Risk - There will be a remote possibility that incidence of groundwater flooding could lead to damage to property or harm to other sensitive receptors at, or near, this location.

Climate change predictions suggest an increase in the frequency and intensity of extremes in groundwater levels. Rainfall recharge patterns will vary regionally resulting in changes to average groundwater levels. A rise in peak river levels will lead to a response of increased groundwater levels in adjacent aquifers subject to the predicted climate change increases in peak river level for the local catchment.

The impact of climate change on groundwater levels beneath the Site is linked to the variation in rainfall recharge which is uncertain.

Based on the available evidence the resulting increase to groundwater flood risk is not considered significant.

Flooding from artificial sources

Artificial sources of flood risk include waterbodies or watercourses that have been amended by means of human intervention rather than natural processes. Examples include reservoirs (and associated water supply infrastructure), docks, sewers and canals. The flooding mechanism associated with flood risk from artificial sources is primarily related to breach or failure of structures (reservoir, lake, sewer, canal, flood storage areas, etc.)

Sewer flooding

The SFRA (2011) does not include sufficient information to assess sewer flood risk at the Site.

Guidance

Properties classified as “at risk” are those that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system either once or twice in the ten year reference period. Records held by the sewage utility company provide information relating to reported incidents, the absence of any records does not mean that the Site is not at risk of flooding.

Canal failure

According to Ordnance Survey (OS) mapping, there are no canals within 500 m of the Site.

Water supply infrastructure

Water supply infrastructure is comprised of a piped network to distribute water to private houses or industrial, commercial or institution establishments and other usage points. In urban areas, this represents a particular risk of flooding due to the large amount of water supply infrastructure, its condition and the density of buildings. The risks of flooding to properties from burst water mains cannot be readily assessed.

If more information regarding the condition and history of the water supply infrastructure within the vicinity of the Site is required, then it is advisable to contact the local water supplier United Utilities.

Culverts and bridges

The blockage of watercourses or structures by debris (that is, any material moved by a flowing stream including vegetation, sediment and man-made materials or refuse) reduces flow capacity and raises water levels, potentially increasing the risk of flooding. High water levels can cause saturation, seepage and percolation leading to failure of earth embankments or other structures. Debris accumulations can change flow patterns, leading to scour, sedimentation, or structural failure. Culverts and bridges have not been identified within 500 m of the Site. However, as a potential lost river is located under the Site and would likely be culverted. This may increase the risk of fluvial flooding at the Site due to a breach or damage to the culvert.

Reservoir flooding

According to the EA's Risk of Flooding from Reservoir mapping the Site is not at risk of flooding from reservoirs (EA, 2022).

Guidance

The risk of reservoir flooding is related to the failure of a large reservoir (holding over 25,000 m³ of water) and is based on the worst-case scenario. Reservoir flooding is extremely unlikely to occur (EA, 2022).

5. Flood risk from the development



Floodplain storage

As the development is located within Flood Zone 1, there would be no losses in floodplain storage from fluvial sources as a result of the development.

The development will be located in an area which is currently affected by the 1 in 100 year (medium risk) scenario surface water flood event, although this flooding occurs within an isolated area of low topography and in all likelihood this area would be levelled or drained positively as part of the development, which would reduce or remove the flooding shown.

If the flooding is not removed by the development, as the proposals involve an increase in the building footprint within the extent of the surface water flooding, this could potentially displace flood water. However, this flood water is only likely to be displaced locally on the Site, in any case floodplain compensation should be provided on a volume for volume and level for level basis, wherever possible.

Drainage and run-off

The proposed development involves an increase in the coverage of impermeable surfaces at the Site. As a result, the rate and volume of runoff from the development is likely to increase over its lifetime. Therefore, an estimation of run-off is required to permit effective Site water management and prevent any increase in flood risk to off-Site receptors from the Site, over the lifetime of the proposed development.

The potential surface water run-off generated from the Site during a 1 in 100 year return period should be calculated, using FEH 2013 rainfall data from the online Flood Estimation Handbook (FEH), developed by NERC (2009) and CEH (2016).

The NPPF (2021) recommends the effects of climate change are incorporated into FRA's and the recently updated climate change guidance (published in 2016 and updated in 2021) confirms the requirements for inclusion within FRA's.

As the proposed development is being changed to residential, the lifespan of the development and requirements for climate change should allow up to the 2115 scenario.

Table 2. Climate change rainfall allowances

Applies across all of England	Total potential change anticipated for 2010 to 2039	Total potential change anticipated for 2040 to 2059	Total potential change anticipated for 2060 to 2115
Upper end	10%	20%	40%
Central	5%	10%	20%

Sustainable Drainage System (SuDS)

A Sustainable Drainage Strategy (SuDS) has been developed for the Site by GeoSmart (ref:76220.01), for effective management of surface water runoff over the lifetime of the proposed development.

6. Suitability of the proposed development



The information below outlines the suitability of proposed development in relation to national and local planning policy.

National policy and guidance

The aims of the national planning policies are achieved through application of the Sequential Test and in some cases the Exception Test.

Guidance

Sequential test: The aim of this test is to steer new development towards areas with the lowest risk of flooding (NPPF, 2021). Reasonably available sites located in Flood Zone 1 should be considered before those in Flood Zone 2 and only when there are no reasonably available sites in Flood Zones 1 and 2 should development in Flood Zone 3 be considered.

Exception test: In some cases, this may need to be applied once the Sequential Test has been considered. For the exception test to be passed it must be demonstrated that the development would provide wider sustainability benefits to the community that outweigh flood risk and a site-specific FRA must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Suitability of the proposed development, and whether the Sequential and Exception Tests are required, is based on the Flood Zone the Site is located within and the flood risk vulnerability classification of the existing and proposed development. Some developments may contain different elements of vulnerability and the highest vulnerability category should be used, unless the development is considered in its component parts.

This report has been produced to assess all development types, prior to any development. The vulnerability classification and Flood Zones are compared within Table 4 overleaf (Table 3 of the NPPG (2014)).

As the Site is located within Flood Zone 1, all types of development listed within the Table overleaf are acceptable according to National Policy. The Sequential Test is not required.

Table 3. Flood risk vulnerability and flood zone 'compatibility (taken from NPPG, 2014)

Flood risk vulnerability classification		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood Zone	Zone 1 – low probability	✓	✓	✓	✓	✓
	Zone 2 – medium probability	✓	✓	Exception test required	✓	✓
	Zone 3a - high probability	Exception test required	✓	X	Exception test required	✓
	Zone 3b – functional flood plain	Exception test required	✓	X	X	X

Local policy and guidance

For this report, several documents have been consulted for local policy and guidance and relevant information is outlined below:

Manchester City Council Strategic Flood Risk Assessment (JBA, 2011):

- A Strategic Flood Risk Assessment (SFRA) is a technical piece of work which presents an independent analysis of the risk posed by flooding from all sources in the study area, and the version completed in 2011 is the most up to date SFRA for Manchester.
- One of the primary purposes of the SFRA is to provide evidence to inform future sustainable development within Manchester, Salford and Trafford, particularly in the Local Authorities' Core Strategies. This collaboration was based upon hydraulic linkages for watercourses and infrastructure across the three authorities, together with a shared policy focus at the heart of Greater Manchester.
- The detailed work within Manchester examined the risk of flooding from all sources, together with interactions and cumulative impacts. The Environment Agency was closely involved with the production of the SFRA, along with other stakeholders.

- The SFRA contains an independent analysis of the risk posed by flooding in the study area, and was substantively completed in March 2010. Since this time a number of cartographical and minor textual amendments have been made to improve legibility and consistency and all documents are available to view (see below for a breakdown).
- A joint statement on the approach and implications of the SFRA was also agreed by us, Salford City Council, Trafford Council and the Environment Agency in May 2011 and is available alongside the SFRA.

Guidance

Strategic Flood Risk Assessments are carried out by local authorities, in consultation with the Environment Agency, to assess the flood risk to the area from all sources both now and in the future due to climate change. They are used to inform planning decisions to ensure inappropriate development is avoided (NPPF, 2021).

7. Resilience and mitigation



Based on the flood risk identified at the Site, the national and local policies and guidance and proposed development, the mitigation measures outlined within this section of the report are likely to help protect the development from flooding.

Sea (coastal/tidal) flood mitigation measures

As the Site is not identified as being at risk of flooding from the sea, mitigation measures are not required.

Rivers (fluvial) flood mitigation measures

As the Site is not identified as being at risk of flooding from fluvial sources, mitigation measures are not required.

Surface water (pluvial) flood mitigation measures

A Medium surface water (pluvial) flooding risk has been identified at the Site. In order to ensure the development includes sufficient flood mitigation measures to reduce the risk of pluvial flooding over its lifetime, the flood depths, levels and appropriate mitigation measures are summarised below:

Finished floor levels of the proposed development in the southwest of the Site should be set at least 0.3 m above the maximum 1 in 100 year event flood level to 79 mAOD, FFL's for properties to the south east should be set 0.6 above ground levels to c. 79.1 mAOD (Appendix C).

Where Finished floor levels cannot be set at the recommended elevation, the floor levels should be set as high as possible and alternative flood mitigation measures included.

Alternative Mitigation

Where it is not possible to raise the minimum finished floor levels to the recommended elevation, it may be appropriate to adopt a water exclusion strategy for flood depths up to 0.3 m in line with the EA's Standing Advice. A water exclusion strategy, using avoidance and resistance measures, is appropriate where floods are expected to last for short durations. Potential water exclusion strategies include:

- Passive flood door systems;
- Temporary flood barriers;
- Air brick covers (manual or automatic closing);
- Non-return flap valves on sewer outfalls.
- Construction of local bunds;
- Landscaping to divert water away from the property;
- Sustainable Drainage Systems (SuDS) to store/intercept flood water;

- Boundary walls/fencing;

Avoidance and resistance measures are unlikely to completely prevent floodwater entering a property, particularly during longer duration flood events. Therefore, it is recommended that the following flood resilience measures are also considered.

- Flood resilient materials and designs:
 - Use of low permeability building materials up to 0.3 m such as engineering bricks (Classes A and B) or facing bricks;
 - Hard flooring and flood resilient metal staircases;
 - The use of internal lime plaster/render or where plasterboards are used these should be fitted horizontally instead of vertically and/or using moisture resistant plasterboard at lower levels;
 - Water, electricity and gas meters and electrical sockets should be located above the predicted flood level;
 - Communications wiring: wiring for telephone, TV, Internet and other services should be protected by suitable insulation in the distribution ducts to prevent damage.

In addition, the regular maintenance of any drains and culverts surrounding/on the Site should be undertaken to reduce the flood risk.

A Sustainable Drainage Strategy (SuDS) has been developed for the Site by GeoSmart (ref:76220.01), for effective management of surface water runoff over the lifetime of the proposed development.

If these mitigation measures are implemented this could reduce the flood risk to the development from **Very Low - Medium** to **Very Low - Low**.

Groundwater flood mitigation measures

As the Site is not identified as being at risk of groundwater flooding, mitigation measures are not required.

Reservoir flood mitigation measures

The Site is not a risk of flooding from reservoirs; therefore, mitigation measures are not required.

Other flood risk mitigation measures

As the Site is not identified as at risk from other sources, mitigation measures are not required.

Residual flood risk mitigation measures

The risk to the Site has been assessed from all sources of flooding and appropriate mitigation and management measures proposed to keep the users of the development safe over its lifetime. There is however a residual risk of flooding associated with the potential for failure of mitigation measures if regular maintenance and upkeep isn't undertaken. If mitigation measures are not implemented or maintained, the risk to the development will remain as the baseline risk.

Further flood mitigation information

More information on flood resistance, resilience and water entry can be found here:
http://www.planningportal.gov.uk/uploads/br/flood_performance.pdf
www.knowyourfloodrisk.co.uk

8. Conclusions and recommendations



Table 4. Risk ratings following implementation and subsequent maintenance of mitigation measures

Source of Flood Risk	Baseline	After Mitigation
River (fluvial) and Sea (coastal/tidal) flooding	Very Low	N/A
Surface water (pluvial) flooding	Very Low to Medium	Very Low to Low
Groundwater flooding	Negligible	N/A
Other flood risk factors present	Yes*	N/A

*A potential lost river under the Site has been identified in the SFRA (JBA, 2011) further Site investigation should be carried out to locate the watercourse prior to development starting.

The table below provides a summary of where the responses to key questions are discussed in this report. Providing the recommended mitigation measures are put in place it is likely that flood risk to this Site will be reduced to an acceptable level.

Table 5. Summary of responses to key questions in the report

Key sources of flood risks identified	Pluvial (see Section 4).
Are standard mitigation measures likely to provide protection from flooding to/from the Site?	N/A (see Section 7).
Is any further work recommended?	Yes (See Section 7 and executive summary for full details)

9. Further information



The following table includes a list of additional products by GeoSmart:

Additional GeoSmart Products			
✓	Additional assessment: SuDSmart Report		The SuDSmart Report range assesses which drainage options are available for a Site. They build on technical detail starting from simple infiltration screening and work up to more complex SuDS Assessments detailing alternative options and designs. Please contact info@geosmartinfo.co.uk for further information.
✓	Additional assessment: EnviroSmart Report		Provides a robust desk-based assessment of potential contaminated land issues, taking into account the regulatory perspective. Our EnviroSmart reports are designed to be the most cost effective solution for planning conditions. Each report is individually prepared by a highly experienced consultant conversant with Local Authority requirements. Ideal for pre-planning or for addressing planning conditions for small developments. Can also be used for land transactions. Please contact info@geosmartinfo.co.uk for further information.

10. References and glossary



References

- British Geological Survey (BGS) (2022).** Geology of Britain Viewer. Accessed from: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> on 02/02/22.
- Defra/Environment Agency (2005).** Flood Risk Assessment Guidance for New Development. *Phase 2 Framework and Guidance for Assessing and Managing Flood Risk for New Development – Fill Documentation and Tools*. R & D Technical Report FD232-/TR2.
- Environment Agency [EA] (2021).** Flood risk assessments: climate change allowances. Accessed from: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> on 02/02/22.
- Environment Agency [EA] (2022).** MagicMap. Accessed from: <http://magic.defra.gov.uk/MagicMap.aspx> on 02/02/22.
- Environment Agency [EA] (2022).** Flood map for planning. Accessed from <https://flood-map-for-planning.service.gov.uk/> on 02/02/22.
- Environment Agency [EA] (2022).** Long term flood risk assessment for locations in England. Accessed from <https://flood-warning-information.service.gov.uk/long-term-flood-risk> on 02/02/22.
- GeoSmart (2022).** GeoSmart groundwater flood risk (GW5) map (version 2.4).
- Ministry of Housing, Communities & Local Government (2014).** Planning Practice Guidance (NPPG). Flood Risk and Coastal Change. Accessed from <http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/> on 02/02/22.
- Ministry of Housing, Communities and Local Government (2021).** National Planning Policy Framework (NPPF). Accessed from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf on 02/02/22.
- Ordnance Survey Mapping (2022).** © Crown copyright. All rights reserved. Licence number AL 100054687. For full terms and conditions visit: www.ordnancesurvey.co.uk
- Manchester, Salford, and Trafford Strategic Flood Risk Assessment (JBA, 2011).** Accessed from: https://secure.manchester.gov.uk/info/500207/planning_and_regeneration/4700/strategic_flood_risk_assessment from: 02/02/22
- Survey Open Data (2022).** Accessed from: <https://environment.data.gov.uk/DefraDataDownload/?Mode=survey> from: 02/02/22

Glossary

General terms

BGS	British Geological Survey
EA	Environment Agency
GeoSmart groundwater flood risk model	GeoSmart's national groundwater flood risk model takes advantage of all the available data and provides a preliminary indication of groundwater flood risk on a 50m grid covering England and Wales. The model indicates the risk of the water table coming within 1 m of the ground surface for an indicative 1 in 200 year return period scenario.
Dry-Island	An area considered at low risk of flooding (e.g. In a Flood Zone 1) that is entirely surrounded by areas at higher risk of flooding (e.g. Flood Zone 2 and 3)
Flood resilience	Flood resilience or wet-proofing accepts that water will enter the building, but through careful design will minimise damage and allow the re-occupancy of the building quickly. Mitigation measures that reduce the damage to a property caused by flooding can include water entry strategies, raising electrical sockets off the floor, hard flooring.
Flood resistance	Flood resistance, or dry-proofing, stops water entering a building. Mitigation measures that prevent or reduce the likelihood of water entering a property can include raising flood levels or installation of sandbags.
Flood Zone 1	This zone has less than a 0.1% annual probability of river flooding
Flood Zone 2	This zone has between 0.1 and 1% annual probability of river flooding and between 0.1% and 0.5 % annual probability sea flooding
Flood Zone 3	This zone has more than a 1% annual probability of river flooding and 0.5% annual probability of sea flooding
Functional Flood Plain	An area of land where water has to flow or be stored in times of flood.
Hydrologic model	A computer model that simulates surface run-off or fluvial flow. The typical accuracy of hydrologic models such as this is $\pm 0.25\text{m}$ for estimating flood levels at particular locations.
OS	Ordnance Survey
Residual Flood Risk	The flood risk remaining after taking mitigating actions.
SFRA	Strategic Flood Risk Assessment. This is a brief flood risk assessment provided by the local council

SuDS

A Sustainable drainage system (SuDS) is designed to replicate, as closely as possible, the natural drainage from the Site (before development) to ensure that the flood risk downstream of the Site does not increase as a result of the land being developed. SuDS also significantly improve the quality of water leaving the Site and can also improve the amenity and biodiversity that a Site has to offer. There are a range of SuDS options available to provide effective surface water management that intercept and store excess run-off. Sites over 1 Ha will usually require a sustainable drainage assessment if planning permission is required. The current proposal is that from April 2014 for more than a single dwelling the drainage system will require approval from the SuDS Approval Board (SABs).

Aquifer Types

Principal aquifer

These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

Secondary A aquifer

Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Secondary B aquifer

Predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

Secondary undifferentiated

Has been assigned in cases where it has not been possible to attribute either category A or B to a rock type due to the variable characteristics of the rock type.

Unproductive Strata

These are rock layers or drift deposits with low permeability that has negligible significance for water supply or river base flow.

NPPF (2021) terms

Exception test

Applied once the sequential test has been passed. For the exception test to be passed it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk and a site-specific FRA must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Sequential test

Aims to steer new development to areas with the lowest probability of flooding.

Essential infrastructure

Essential infrastructure includes essential transport infrastructure, essential utility infrastructure and wind turbines.

Water compatible	Water compatible land uses include flood control infrastructure, water-based recreation and lifeguard/coastal stations.
Less vulnerable	Less vulnerable land uses include police/ambulance/fire stations which are not required to be operational during flooding and buildings used for shops/financial/professional/other services.
More vulnerable	More vulnerable land uses include hospitals, residential institutions, buildings used for dwelling houses/student halls/drinking establishments/hotels and sites used for holiday or short-let caravans and camping.
Highly vulnerable	Highly vulnerable land uses include police/ambulance/fire stations which are required to be operational during flooding, basement dwellings and caravans/mobile homes/park homes intended for permanent residential use.

Data Sources

Aerial Photography	Contains Ordnance Survey data © Crown copyright and database right 2022 BlueSky copyright and database rights 2022
Bedrock & Superficial Geology	Contains British Geological Survey materials © NERC 2022 Ordnance Survey data © Crown copyright and database right 2022
Flood Risk (Flood Zone/RoFRS/Historic Flooding/Pluvial/Surface Water Features/Reservoir/ Flood Alert & Warning)	Environment Agency copyright and database rights 2022 Ordnance Survey data © Crown copyright and database right 2022
Flood Risk (Groundwater)	GeoSmart, BGS & OS GW5 (v2.4) Map (GeoSmart, 2022) Contains British Geological Survey materials © NERC 2022 Ordnance Survey data © Crown copyright and database right 2022
Location Plan	Contains Ordnance Survey data © Crown copyright and database right 2022
Topographic Data	OS LiDAR/EA Contains Ordnance Survey data © Crown copyright and database right 2022 Environment Agency copyright and database rights 2022

11. Appendices



Appendix A



Site plans

VASA Club, Rochdale Road

20no. Houses
8no. Duplexes
8no. Apartments
36 parking spaces

ACCOMMODATION SCHEDULE

20no. 4 Bed Townhouses (1350sqft ave.)	27,000sqft
8no. 2 Bed Duplexes (900sqft ave.)	7,200sqft
8no. 1 Bed Apartments (450sqft ave.)	3,600sqft

NIA **37,800sqft**

REVISION	DATE	DESCRIPTION

CLIENT:	
PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT	
ADDRESS: VASA Club, Rochdale Rd	
DRAWING TITLE: PROPOSED SITE PLAN - HOUSES	
SCALE: 1:500@A3	DATE: JUNE 2021
DRAWING NO: A647_SK_52F	

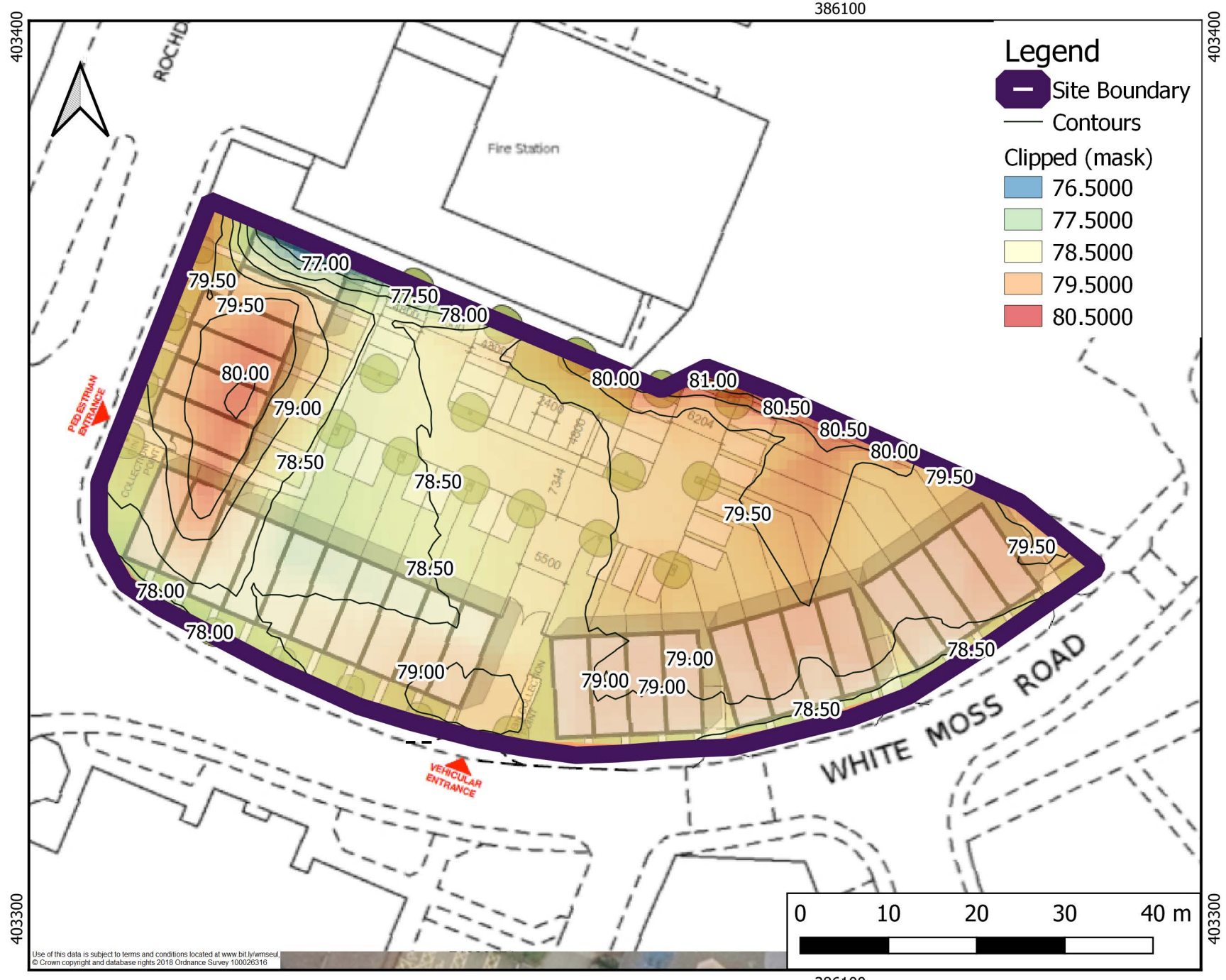
OLLIER SMURTHWAITE ARCHITECTS

106 Albert Mill, 10 Hulme Hall Road, Manchester, M15 4LY
T: 0161 883 0838
F: 0161 883 0839
E: mail@olliersmurthwaite.com

Appendix B



Environment Agency LiDAR ground elevation data

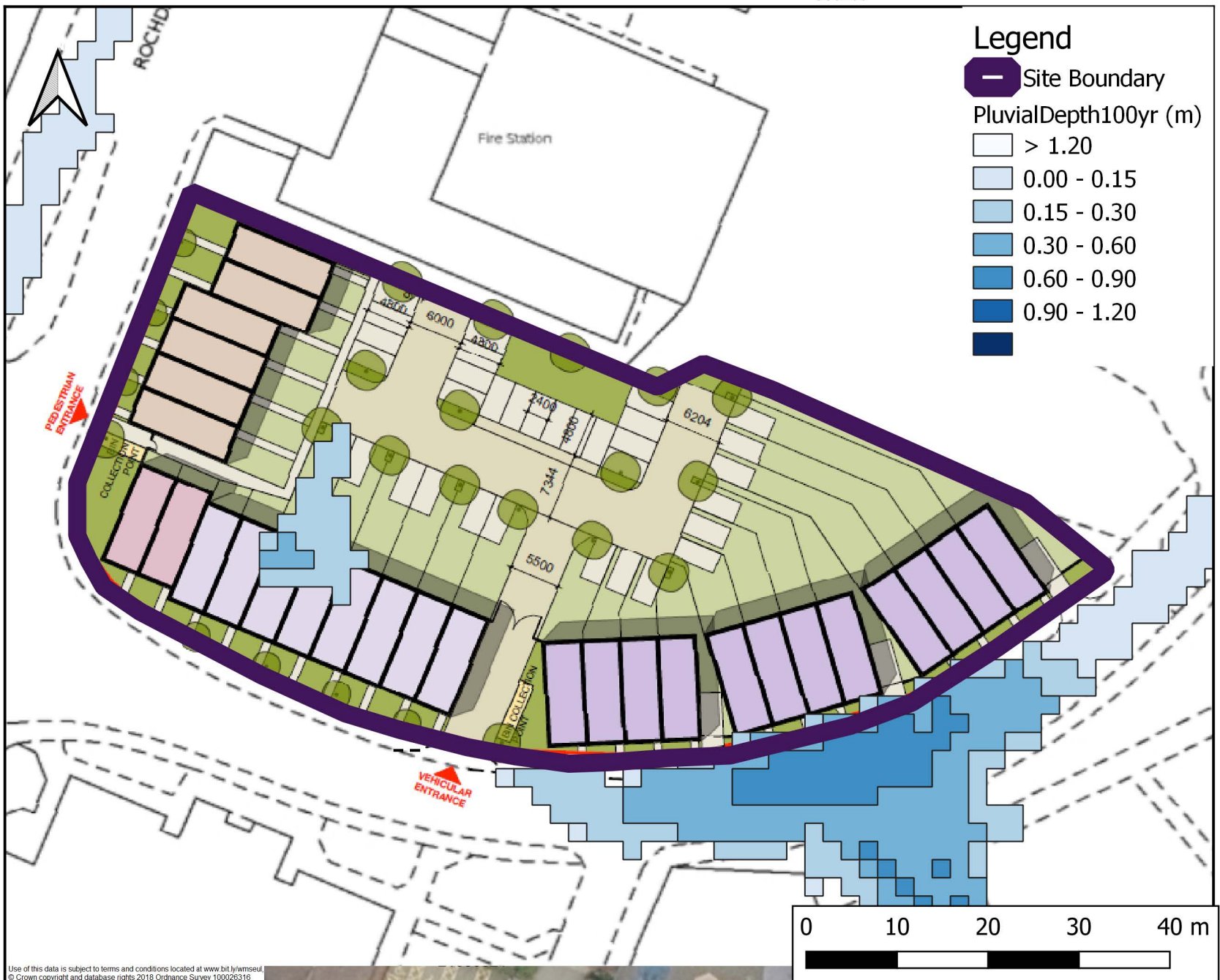
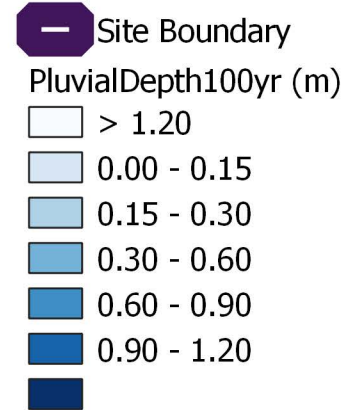


Appendix C



Pluvial Mitigation Map

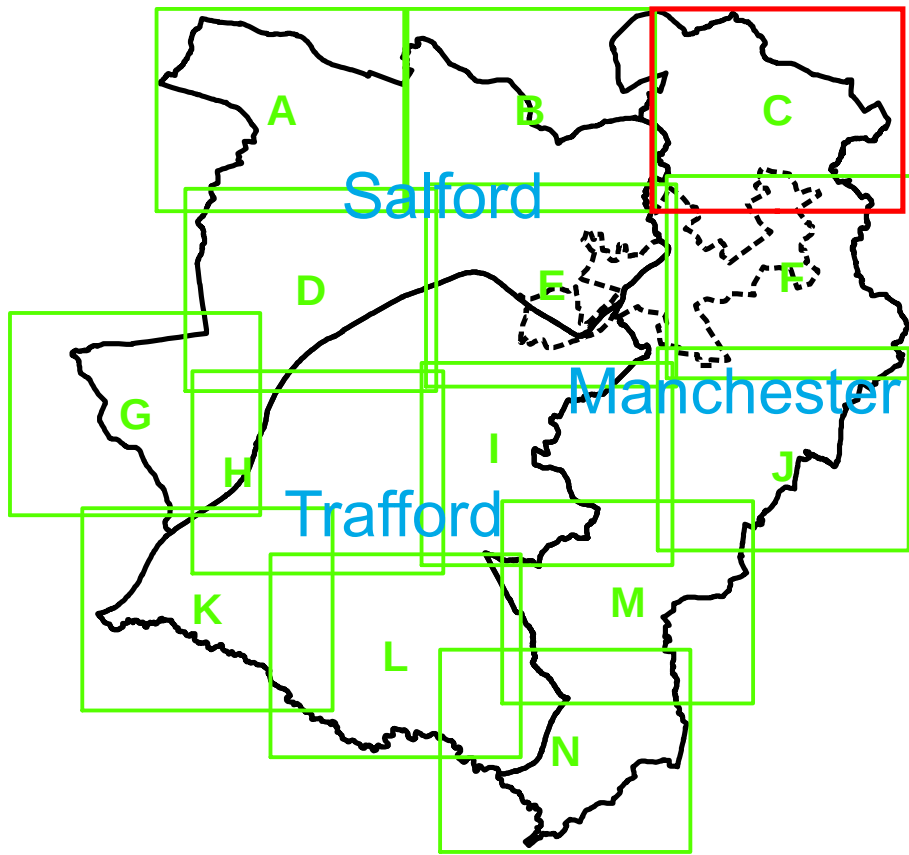
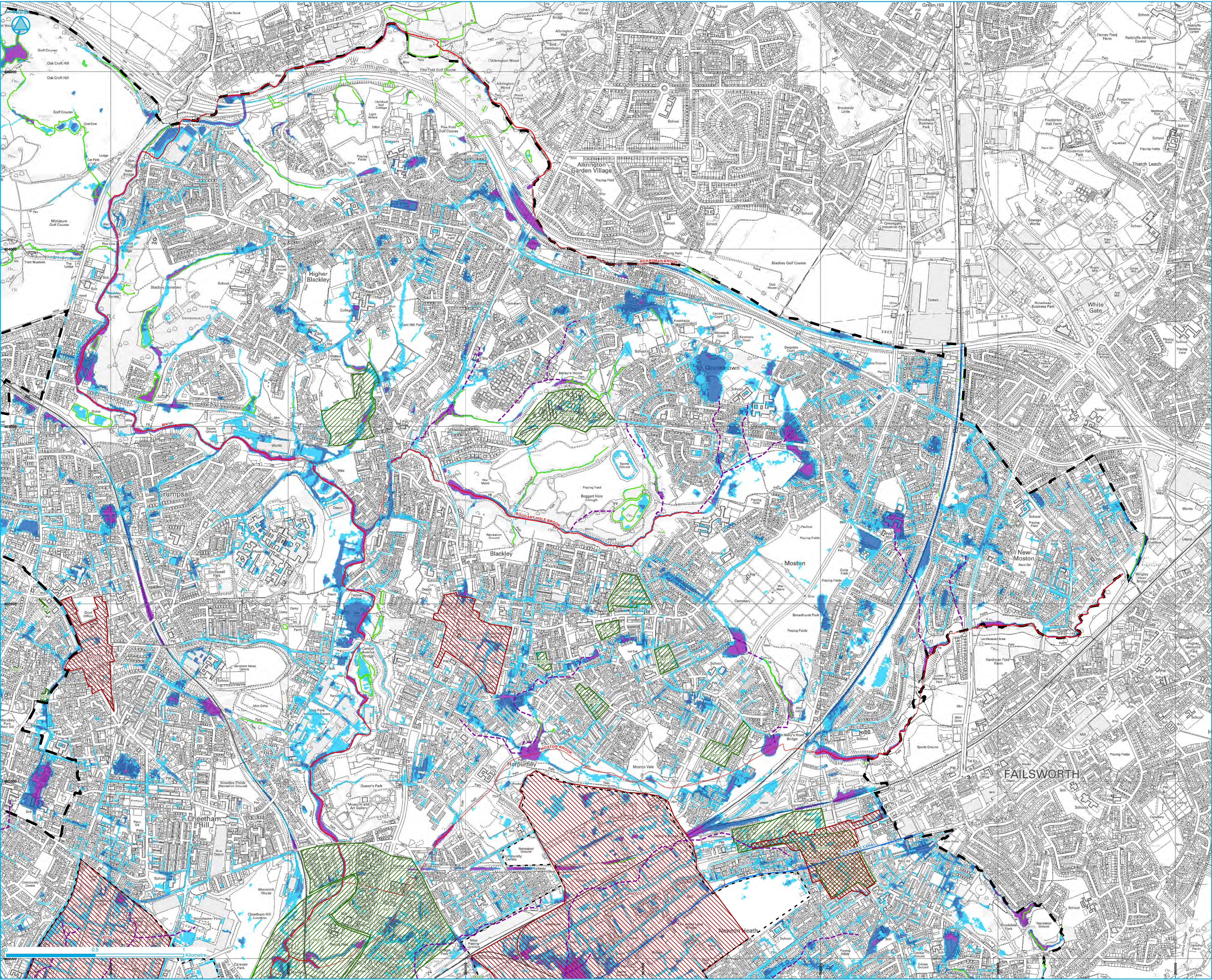
Legend



Appendix D



Local Council Document Mapping



- Council Boundary**
- Lost Watercourses**
- Susceptibility to Surface Water Flooding**
- Potential Development Sites / Locations**
- Main Rivers (V8.0)**
- Digitised River Lines**

This map has been produced in accordance with PPS25: Development and Flood Risk.

The map refines the Environment Agency's map of 'Areas Susceptible to Surface Water Flooding' based on more detailed modelling outputs produced for this SFRA. This map can be used to assess the sensitivity of surface water flooding to climate change and urban development.

The Main River information shown in the SFRA is provided by the Environment Agency; the centreline data may deviate from that shown on basemapping due to inherent differences in data resolution. Further information on Main Rivers is provided on the Environment Agency's website. The mapping of culverted sections of watercourse is a strategic screening only based upon Ordnance Survey 1:10,000 mapping and should be confirmed for more detailed studies such as site specific Flood Risk Assessment. The canals layer does not necessarily cover all the canal arms, but the modelled overtopping/breaching and hydraulic interactions with rivers and other waterbodies is complete and accurate as appropriate for a Strategic Flood Risk Assessment.

This map should be used to apply the Exception Test and to scope what the Flood Risk Assessment should consider in its placement of surface development and the management of runoff.



www.jeremybenn.co.uk
t 01925 570876
f 0845 8627772
e info@jbaconsulting.co.uk

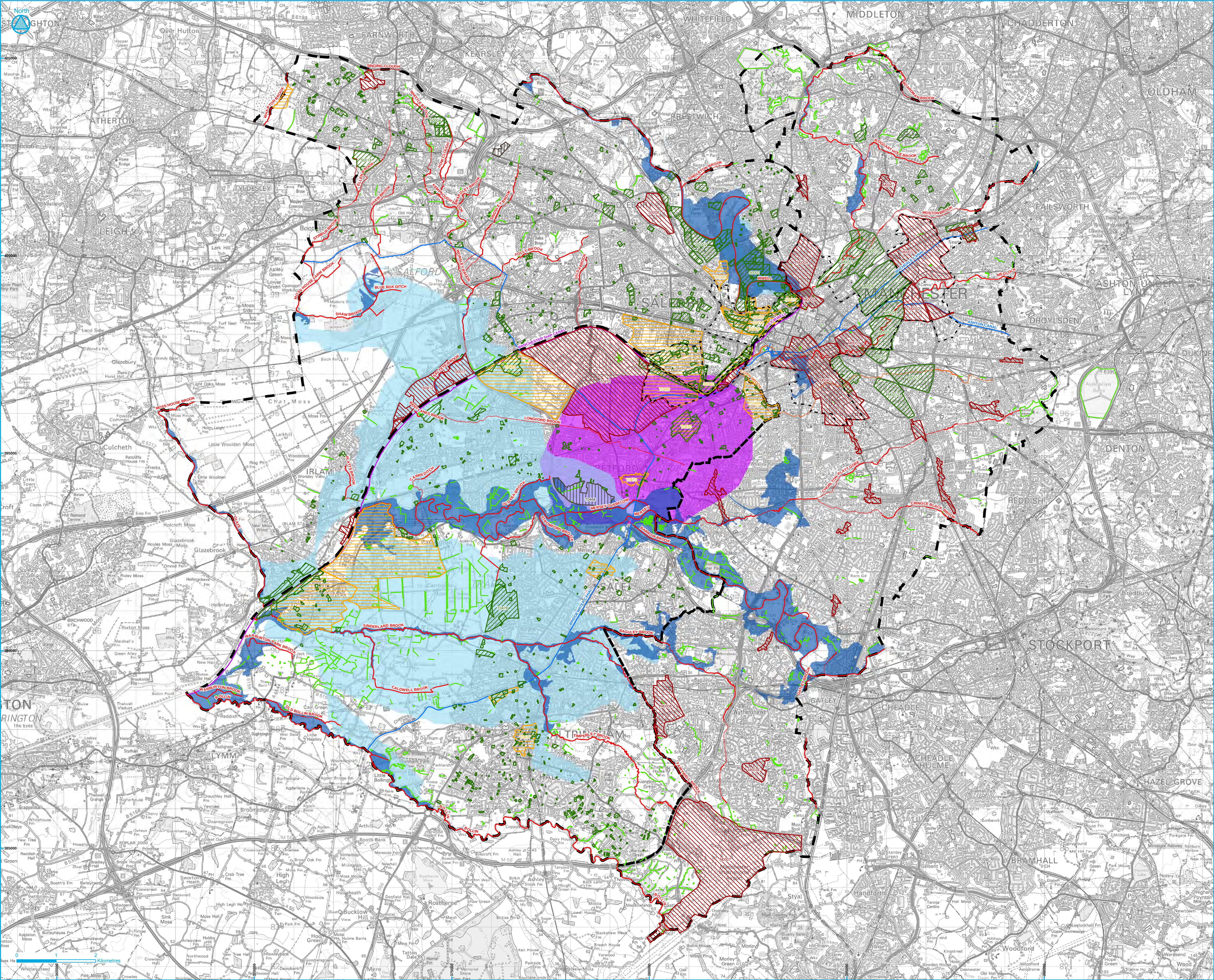
Bank Quay House
Sankey Street
Warrington
WA1 1NN
United Kingdom

Other offices at Altherstone, Doncaster, Edinburgh, Haywards Heath, Limerick,
Newcastle upon Tyne, Newport, Northallerton, Saltire, Skipton, Tadcaster &
Wellingford



Manchester City, Salford City and Trafford
Councils Level 2 Hybrid SFRA
Susceptibility to Surface Water Flooding - Future Scenario

Drawn by: J Cheetham	Date: 31/01/2011	This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence number: 10001668-2011
Checked by: J Dimelew	Date: 01/02/2011	
Approved by: J Cooper	Date: 01/02/2011	
File Name: ArcViewMapping\Level2\MST_SurfaceWaterFlooding_Current_V11.mxd		
Drawing Number: SS_4.2 C	Status: FINAL	Scale: 1:10,000
Original © A1		



- Council Boundary
- Ashton, Bridgewater and Rochdale Canals
- Manchester Ship Canal / Grey Inwell
- Other Waterbodies
- Main Rivers (V8.0)**
 - Culverted
 - Open
- Digitised River Lines**
 - Culverted
 - Open
- Potential Development Sites / Locations**
 - Employment
 - Housing
 - Mixed Use
 - Other
- Regional Centre Boundary

The map has been produced in accordance with PPS25: Development and Flood Risk and its Practice Guide. This map shows areas that are potentially at risk from groundwater flooding and should be used to scope suitable mitigation measures in a site specific Flood Risk Assessment.

The Main River information shown in the SFRA is provided by the Environment Agency; the centreline data may deviate from that shown on basemapping due to inherent differences in data resolution. Further information on Main Rivers is provided on the Environment Agency's website. The mapping of culverted sections of watercourse is a strategic screening only based upon Ordnance Survey 1:10,000 mapping and should be confirmed for more detailed studies such as site specific Flood Risk Assessment. The canals layer does not necessarily cover all the canal arms, but the modelled overtopping/breaching and hydraulic interactions with rivers and other waterbodies is complete and accurate as appropriate for a Strategic Flood Risk Assessment.

The information on the map is based on Environment Agency potential groundwater rebound areas, data from the Coal Authority, BGS drift geology mapping and Defra Groundwater Emergence Maps.

The River Inwell between Victoria Station and Pomona Island is not shown as a Main River on the Environment Agency's Flood Map although Flood Zones related to the river are. The same approach has been taken in this SFRA.

www.jeremybenn.co.uk
t 01925 570876
f 0845 882772
e info@jbaconsulting.co.uk

Bank Quay House
Sankey Street
Warrington
WA1 1NN
United Kingdom

Other offices at Atherstone, Doncaster, Edinburgh, Haywards Heath, Limerick, Newcastle upon Tyne, Newport, Northallerton, Salford, Skipton, Tadcaster & Wellingford

for

Manchester City, Salford City and Trafford Councils Level 2 Hybrid SFRA

Groundwater Flooding

Drawn by: J Cheetham	Date: 08/03/2011	This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence number: 100019068 2011.
Checked by: J Dimelow	Date: 01/02/2011	
Approved by: J Cooper	Date: 01/02/2011	
File Name: ..\ArcViewMapping\Level1\MS2_GroundwaterFlooding_V1.3.mxd		
Drawing Number:	Status:	Scale:
GW_2.1	FINAL	1:45,000
Original © A1		

Disclaimer

This report has been prepared by GeoSmart in its professional capacity as soil, groundwater, flood risk and drainage specialists, with reasonable skill, care and diligence within the agreed scope and terms of contract and taking account of the manpower and resources devoted to it by agreement with its client and is provided by GeoSmart solely for the internal use of its client.

The advice and opinions in this report should be read and relied on only in the context of the report as a whole, taking account of the terms of reference agreed with the client. The findings are based on the information made available to GeoSmart at the date of the report (and will have been assumed to be correct) and on current UK standards, codes, technology and practices as at that time. They do not purport to include any manner of legal advice or opinion. New information or changes in conditions and regulatory requirements may occur in future, which will change the conclusions presented here.

This report is confidential to the client. The client may submit the report to regulatory bodies, where appropriate. Should the client wish to release this report to any other third party for that party's reliance, GeoSmart may, by prior written agreement, agree to such release, provided that it is acknowledged that GeoSmart accepts no responsibility of any nature to any third party to whom this report or any part thereof is made known. GeoSmart accepts no responsibility for any loss or damage incurred as a result, and the third party does not acquire any rights whatsoever, contractual or otherwise, against GeoSmart except as expressly agreed with GeoSmart in writing.

For full T&Cs see <http://geosmartinfo.co.uk/terms-conditions>

Important consumer protection information

This search has been produced by GeoSmart Information Limited, Suite 9-11, 1st Floor, Old Bank Buildings, Bellstone, Shrewsbury, SY1 1HU.

Tel: 01743 298 100

Email: info@geosmartinfo.co.uk

GeoSmart Information Limited is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom.
- sets out minimum standards which firms compiling and selling search reports have to meet.
- promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals.
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.
- By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports.
- act with integrity and carry out work with due skill, care and diligence.
- at all times maintain adequate and appropriate insurance to protect consumers.
- conduct business in an honest, fair and professional manner.
- handle complaints speedily and fairly.
- ensure that products and services comply with industry registration rules and standards and relevant laws.
- monitor their compliance with the Code.

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs contact details:

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk.

Please ask your search provider if you would like a copy of the search code

Complaints procedure

GeoSmart Information Limited is registered with the Property Codes Compliance Board as a subscriber to the Search Code. A key commitment under the Code is that firms will handle any complaints both speedily and fairly. If you want to make a complaint, we will:

- Acknowledge it within 5 working days of receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.
- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk.

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision. Complaints should be sent to:

Martin Lucass

Commercial Director

GeoSmart Information Limited

Suite 9-11, 1st Floor,

Old Bank Buildings,

Bellstone, Shrewsbury, SY1 1HU

Tel: 01743 298 100

martinlucass@geosmartinfo.co.uk

12. Terms and conditions, CDM regulations and data limitations



Terms and conditions can be found on our website:

<http://geosmartinfo.co.uk/terms-conditions/>

CDM regulations can be found on our website:

<http://geosmartinfo.co.uk/knowledge-hub/cdm-2015/>

Data use and limitations can be found on our website:

<http://geosmartinfo.co.uk/data-limitations/>