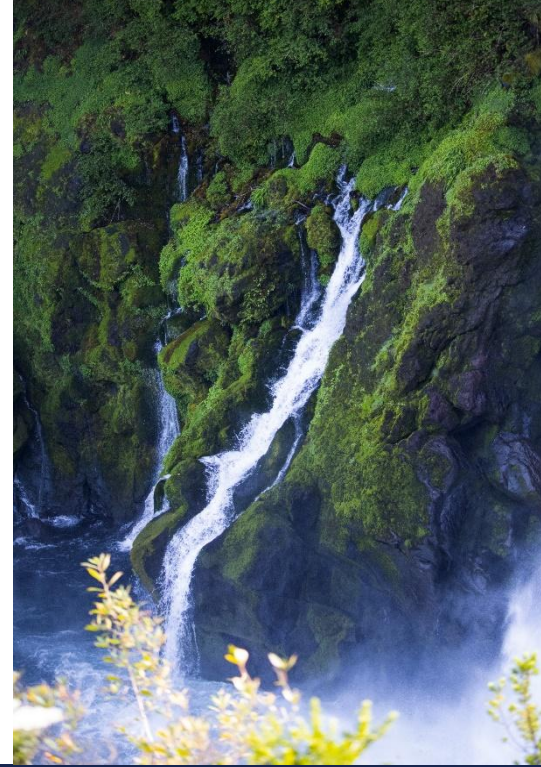




Flood Risk Assessment AEG11222_LE9_Leicester_01

Site Address: Land Off Leicester Road (A47)
East Shilton
Hinckley
Leicestershire
LE9 7DY

UK Experts in Flood Modelling, Flood Risk
Assessments, and Surface Water Drainage Strategies



Document Issue Record

Project: Flood Risk Assessment

Prepared for: Bark Park Leicester Ltd

Reference: AEG11222_LE9_ Leicester _01

Site Location: Land Off Leicester Road (A47), East Shilton, Hinckley, Leicestershire, LE9 7DY

Issue	Date	Author	Check	Auth.	Comments
1	07/07/2026	Daniel Cunningham	ML	NB	First issue

Please Note:

This report has been prepared for the exclusive use of the commissioning party and may not be reproduced without prior written permission from Aegaea Limited. All work has been carried out within the terms of the brief using all reasonable skill, care, and diligence. No liability is accepted by Aegaea Limited for the accuracy of data or opinions provided by others in the preparation of this report, or for any use of this report other than for the purpose for which it was produced. Where reference has been made to probability events, or risk probability, it does not ensure that there is no risk or that there is no residual risk from an extreme, unlikely or unforeseen flood event over the lifetime of the development.

Table of Contents

Summary.....	1
1. Introduction.....	3
Site Overview.....	3
Planning Policy and Guidance.....	5
2. Planning Policy.....	6
National Planning Policy Framework (NPPF).....	6
Local Plan.....	9
Sequential and Exception Tests.....	9
Summary.....	11
3. Consultation and Review.....	12
Consultation.....	12
Documents and Online Mapping.....	12
4. Sources of Flood Risk.....	15
Fluvial.....	15
Tidal.....	19
Canals.....	20
Pluvial.....	20
Reservoirs.....	22
Groundwater.....	24
Sewers.....	24
5. Flood Risk Mitigation.....	26
Fluvial.....	26
Pluvial.....	26
Tidal, Canals, Reservoirs, Groundwater and Sewers.....	26
Increase to Flood Risk Elsewhere.....	26
Flood Warnings.....	26
6. Conclusions.....	28
Appendix A - EA Consultation.....	28

Summary

Development Description	Existing	Proposed
Development Type	An agricultural field	A dog park also including the addition a wooden field shelter
EA Vulnerability Classification	No Vulnerability Classification	Water Compatible
Ground Levels	Based on the EA LiDAR data the existing building has ground elevations of between 82.71m AOD and 85.89m AOD.	No change
Surface Water Drainage	Agricultural land currently assumed to drain via infiltration	To drain as existing (infiltration into the ground)
Site Size	Approximately 6500m²	No change
Risk to Development	Summary	Comment
EA Flood Zone	Flood Zones 1 and 2	The proposed development footprint (wooden field shelter) is considered to be outside of all modelled fluvial and pluvial flood events. As such, the risk is considered low.
Flood Source	Low risk	
SFRA Available	Strategic Flood Risk Assessment Level 1 (Blaby District Council, 2020)	
Management Measures	Summary	Comment
Ground floor level above extreme flood levels	Yes	The proposed development footprint is considered to be outside of all modelled fluvial and pluvial flood events.
	Yes	The surrounding access roads are located outside of the fluvial modelled ‘design’ 1 in 100+CC, and the pluvial 1 in 100 +CC flood extents. As such, access/egress to the wider area is considered achievable.

Flood Resilient Design	Not required	The development is considered to be at low risk from all sources of flooding.
Site Drainage Plan	N/A ²	Runoff from site and small wooden field shelter (approx. 15m ²) to drain as existing (infiltration into the ground).
Flood Warning and Evacuation Plan	N/A ¹	Recommended that occupier monitor Met Office Weather Warnings for extreme weather events.
Offsite Impacts	Summary	Comment
Displacement of floodwater	Negligible	The proposed development footprint is considered to be outside of all modelled fluvial and pluvial flood events. As such, the proposed development should have a negligible impact on flood risk elsewhere.
Increase in surface run-off generation	Negligible	To drain as existing (infiltration into the ground). The proposed wooden field shelter is approximately 15m ² , and therefore, is considered to have a negligible increase in surface water runoff.
Impact on hydraulic performance of channels	Negligible	The nearest watercourse is approximately 50m from the site.

¹ not required for this assessment

² data not available.

1. Introduction

- 1.1. Aegaea were commissioned by Bark Park Leicester Ltd to undertake a Flood Risk Assessment (FRA) to facilitate a planning application for the proposed development. This FRA has been prepared in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance.
- 1.2. This FRA is intended to support a full planning application and as such the level of detail included is commensurate and subject to the nature of the proposals.

Site Overview

- 1.3. The site of the proposed development is Land Off Leicester Road (A47), East Shilton, Hinckley, Leicestershire, LE9 7DY (Figure 1).

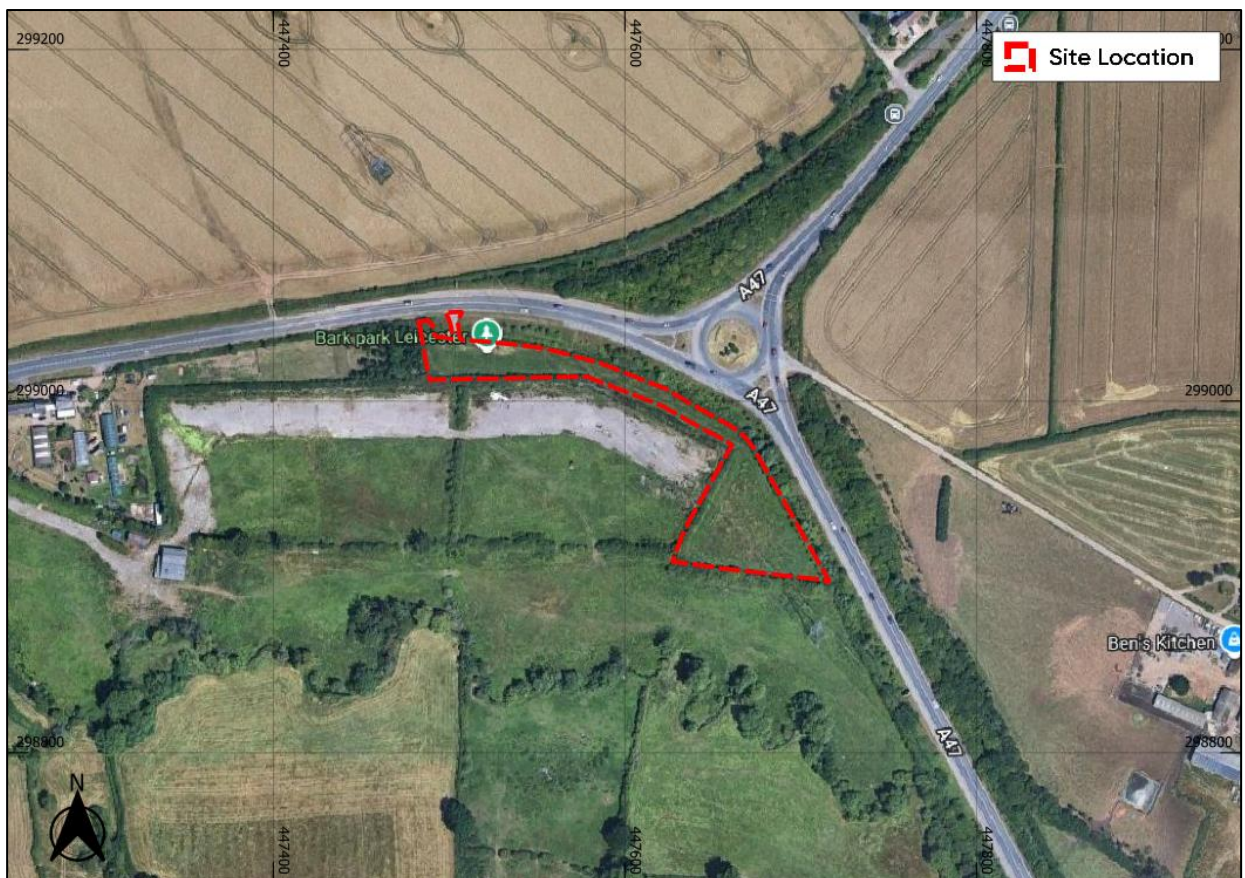


Figure 1: Site Location (Base map and data from Google Hybrid ©)

- 1.4. It is understood that the proposal is for the change of use from agricultural field to sui generis use for an outdoor private hire dog park to include the addition a wooden field shelter.

- 1.5. In the absence of a topographical survey, Environment Agency (EA) Light Detection and Ranging (LiDAR) data Digital Terrain Model has been used to review the topography of the site. The LiDAR data shows the ground elevation of the site varies between approximately 82.71m AOD (Above Ordnance Datum) and 85.89m AOD (Figure 2)

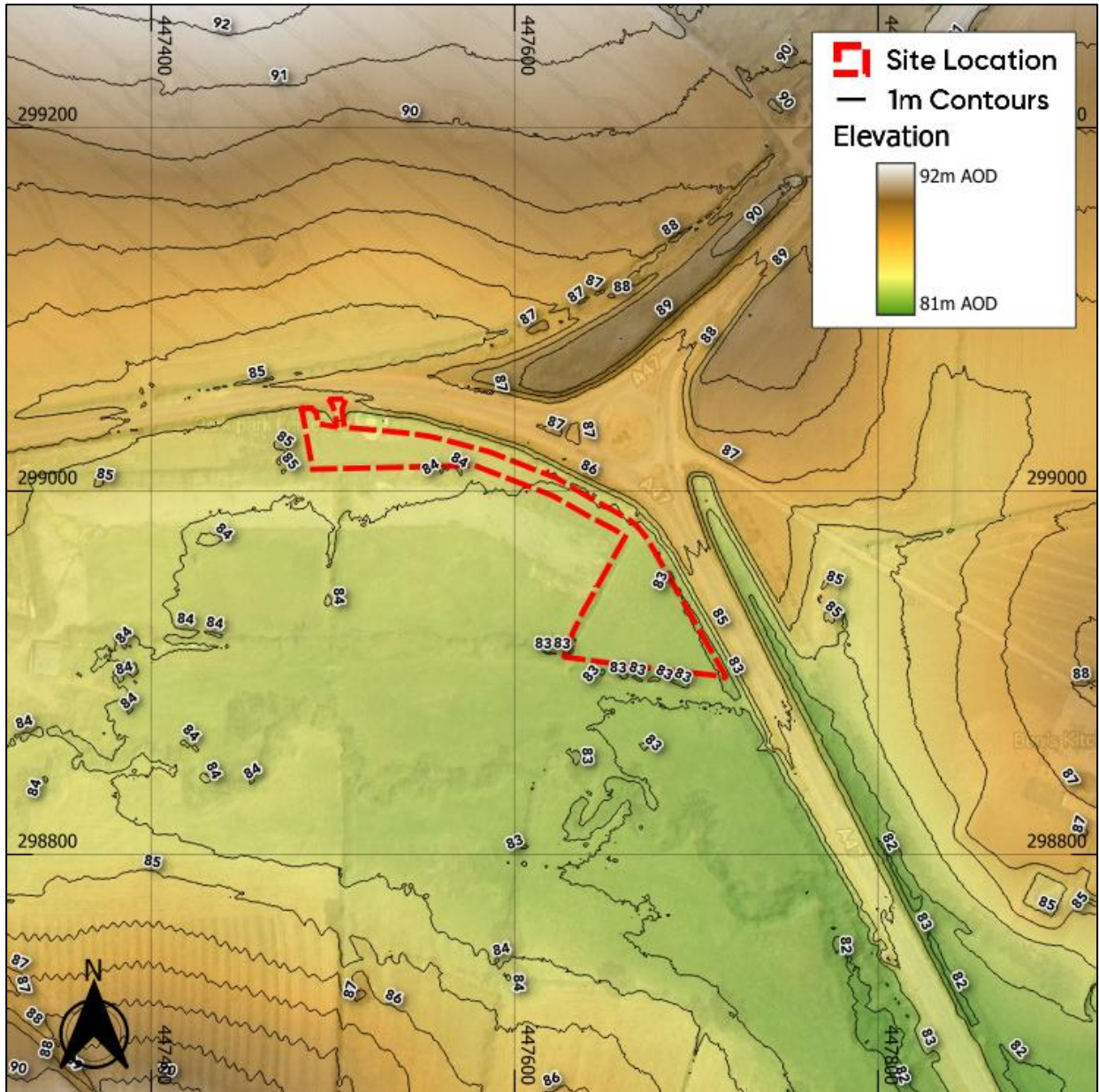


Figure 2: Site Topography (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

- 1.6. Hinckley and Bosworth Borough Council and Blaby District Council is the Local Planning Authority (LPA) for the site and Leicestershire County Council is the designated Lead Local Flood Authority (LLFA). The site sits within the Environment Agency's East Midlands region.

Planning Policy and Guidance

1.7. UK government planning guidance states¹ that an FRA is required for developments which are:

- *in flood zones 2 or 3 including minor development and change of use*
- *more than 1 hectare (ha) in flood zone 1*
- *less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)*
- *in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency*

1.8. The site is partly located within Flood Zone 2 extent. Furthermore, the council have noted that the site is within an area of surface water flood risk. As such, an FRA has been prepared.

1.9. The objective of this FRA is to demonstrate that the proposals are acceptable in terms of flood risk. This report summarises the findings of the study and specifically addresses the following issues in the context of the current legislative regime:

- Fluvial/tidal flood risk
- Surface water flood risk
- Risk of flooding from other sources

¹ <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#when-you-need-an-assessment>

2. Planning Policy

- 2.1. Inappropriate development in a flood risk area could pose significant risk in terms of personal safety and damage to property for the occupiers of the development or for people elsewhere. The approach taken in the assessment of flood risk at the planning stage is set out in national, regional, and local planning policy and associated guidance. This section summarises the key policies and guidance relevant to the proposed development.

National Planning Policy Framework (NPPF)

- 2.2. The National Planning Policy Framework² (NPPF) (MHCLG, 2024) which includes UK Government policy on development and flood risk states:

170. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

176. Applications for some minor development and changes of use should also not be subject to the sequential test, nor the exception test [set out below], but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.

181. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

- a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*

² <https://www.gov.uk/guidance/national-planning-policy-framework>, last updated Dec 2024

- b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;*
- c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*
- d) any residual risk can be safely managed; and*
- e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.*

2.3. Footnote 63 of the NPPF states:

A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

2.4. Flood Zones in England are defined as follows:

Table 1: Flood Zone Definitions

Flood Zone	Definition
Zone 1 Low Probability	Land having less than 1 in 1,000 annual probability of river or sea flooding (all land outside Zones 2 and 3).
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding.
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

- 2.5. An FRA should be appropriate to the scale, nature, and location of the development. It should identify and assess the risk from all sources of flooding to and from the development and demonstrate how any flood risks will be managed over the lifetime of the development.
- 2.6. An assessment of hydrological impacts should be undertaken, including to surface water runoff and impacts to drainage networks in order to demonstrate how flood risk to others will be managed following development and taking climate change into account.

Local Plan

- 2.7. The Local Plan prepared by the Local Planning Authority, Blaby District Council, sets out the policies for development in the local area.
- 2.8. Policy CS22 Flood Risk Management outlines the requirements for new development within the area. It states:

The Council will ensure all development minimises vulnerability and provides resilience to flooding, taking into account climate change. This will be achieved by:

- a) directing development to locations at the lowest risk of flooding within the District, giving priority to land in flood zone 1. Where development is proposed in flood risk areas, mitigation measures must be in place to reduce the effects of flood water.*
- b) using Sustainable Drainage Systems (SuDS) to ensure that flood risk is not increased on-site or elsewhere and to protect the quality of the receiving water course. Where possible, the Council will encourage development to reduce the overall flood risk through the design and layout of schemes which enhance natural forms of drainage. (This could include, but is not limited to; floodplain creation; surface water storage and; removing culverts and barriers to flow).*
- c) managing surface water run-off to minimise the net increase in the amount of surface water discharged into the public sewer system.*
- d) closely consulting the Environment Agency in the management of flood risk to ensure that any risk of flooding is appropriately mitigated and the natural environment is protected in all new development.*

Sequential and Exception Tests

- 2.9. The Sequential and Exception Tests are applied in specific cases defined by UK Government policy. Their purpose is to drive development to areas of low flood risk and to support developments which improve flood risk for developments in areas at risk of flooding.

Sequential Test

- 2.10. Paragraph 175 of the NPPF states:

*The sequential test should be used in areas known to be at risk now or in the future from any form of flooding, except in situations where a **site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).***

- 2.11. This FRA demonstrates that the proposed development, is at low risk of flooding from all analysed sources. As such, the sequential test is not considered necessary in line with NPPF Paragraph 175.

Exception Test

- 2.12. The Exception Test is applied to sites based on the Flood Zone and the nature of the development. As the proposed development consists of an outdoor private hire dog park it would be classed as 'Water Compatible' in line with government development use classes.
- 2.13. The Flood Risk Vulnerability Classification table³ provided below in Table 2 shows which vulnerabilities are appropriate in each Flood Zone.
- 2.14. The site is partly within Flood Zone 2 but the proposed field shelter sits within Flood Zone 1 and the is for a 'Water Compatible' use. Table 2 shows that in Flood Zone 1 and 2, 'Water Compatible' development is permitted.

³ <https://www.gov.uk/guidance/flood-risk-and-coastal-change#table2>

Table 2: Flood risk vulnerability and flood zone 'incompatibility'

Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a	Exception Test required	x	Exception Test required	✓	✓
Zone 3b	Exception Test required	x	x	x	✓

Summary

- 2.15. This flood risk assessment has been prepared with due consideration to the above local and national policy.

3. Consultation and Review

Consultation

- 3.1. The EA were contacted about acquiring the detailed flood modelling for the site (presented in Appendix A). The EA stated that:

There is not any modelled data available for this location. This is because detailed modelling hasn't been carried out in this area.

- 3.2. As such the National Flood Risk Assessment (NaFRA2), published in Jan 2025, has been assessed to understand the risk to the site from fluvial sources. This is considered the best available data at the time of writing.

Documents and Online Mapping

- 3.3. Local Governments and Lead Local Flood Authorities provide documents which contain data and policies on flood risk and new development in their areas. These documents are introduced and briefly summarised below. For the purposes of this FRA, these documents have been reviewed for relevant information and any relevant data is discussed within the appropriate sub heading of this report.
- 3.4. The following sources of information have been reviewed for this assessment:
- Flood Map for Planning on the Environment Agency website <https://flood-map-for-planning.service.gov.uk/>
 - Long Term Flood Risk Information on the Environment Agency website <https://www.gov.uk/check-long-term-flood-risk>
 - National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024)
 - Planning Practice Guidance - Flood Risk and Coastal Change (Ministry of Housing, Communities and Local Government, 2022)
 - Geoindex Onshore (British Geological Survey, 2024)

- The Blaby District Local Plan (Blaby District Council, 2013)⁴ and Local Plan (Delivery) Development Plan Document (Blaby District Council, 2019)⁵
- Preliminary Flood Risk Assessment Addendum (Leicestershire County Council, 2017)⁶ and Preliminary Flood Risk Assessment (Leicestershire County Council, 2011)⁷
- Blaby District Council Level 1 Strategic Flood Risk Assessment (Blaby District Council, 2025)⁸
- Local Flood Risk Management Strategy for Leicestershire (Leicestershire County Council, 2024)⁹

Preliminary Flood Risk Assessment (PFRA)

- 3.5. The PFRA, published in 2011 and 2017 (addendum), is a high-level appraisal of flood risk across Lead Local Flood Authority Leicestershire County Council. The flood risk from all sources, including fluvial, surface water, groundwater, and surcharged sewers is evaluated. It is the basis upon which the Local Flood Risk Management Strategy is produced.
- 3.6. The PFRA summarises historical flood incidents in Leicestershire County Council. The site is not recorded as having been affected by any flood event.

Strategic Flood Risk Assessment (SFRA)

- 3.7. The SFRA, published in 2025, provides the evidence base for the Local Planning Authority Blaby District Council Local Plan and guidance for consideration when determining planning applications. The SFRA seeks to place new development into areas of lower flood risk taking

⁴ <https://www.blaby.gov.uk/media/4107/adopted-core-strategy.pdf>

⁵ <https://www.blaby.gov.uk/media/15ebnxns/blaby-district-adoped-local-plan.pdf>

⁶ https://assets.publishing.service.gov.uk/media/5acb85a640f0b64ff0e693b7/PFRA_Leicestershire_County_Council_2017.pdf

⁷ https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2016/9/19/prelim_flood_risk_assessment.pdf

⁸ <https://dns791hwfx5fu.cloudfront.net/media/typf0k2l/41-sfra-update-2025-level-1.pdf>

⁹ <https://www.leicestershire.gov.uk/sites/default/files/2024-02/Local-Flood-Risk-Management-Strategy-for-Leicestershire.pdf>

into account current flood risk, future flood risk, and the effect a proposed development would have on the risk of flooding.

- 3.8. The SFRA mapping provided by Blaby District Council has been used throughout production of this report as a source of information, particularly pertaining to historical flood incidents.

Local Flood Risk Management Strategy (LFRMS)

- 3.9. The Local Flood Risk Management Strategy sets out roles and responsibilities for flood risk management, assesses the risk of flooding in the area, where funding can be found to manage flood risk, and the policies, objectives, and actions of the Lead Local Flood Authority.
- 3.10. The Leicestershire County Council LFRMS is used within this report to identify any flood management infrastructure and historical incidences of flooding.

Main Rivers

- 4.4. There are no recorded EA Main Rivers within 1km of the site based on OS mapping.

Ordinary Watercourses

- 4.5. The Thurloston Brook is located 50m south of the site at its nearest location (Figure 4). It is noted that the flood zones within the area are derived from this watercourse.



Figure 4: Watercourses (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

EA Flood Data

- 4.6. The EA were contacted about acquiring the detailed flood modelling for the site. The EA stated that:

There is not any modelled data available for this location. This is because detailed modelling hasn't been carried out in this area.

- 4.7. As such the National Flood Risk Assessment (NaFRA2), published in Jan 2025, has been assessed below to understand the risk to the site from fluvial sources. This is considered the best available data at the time of writing.

Present Day

- 4.8. As can be seen in Figure 5, the proposed development footprint is not within the 1 in 30, 1 in 100 and 1 in 1000 year extent. The southeastern area of the site is within the 1 in 1000 year extent however no built footprint is proposed within this area.

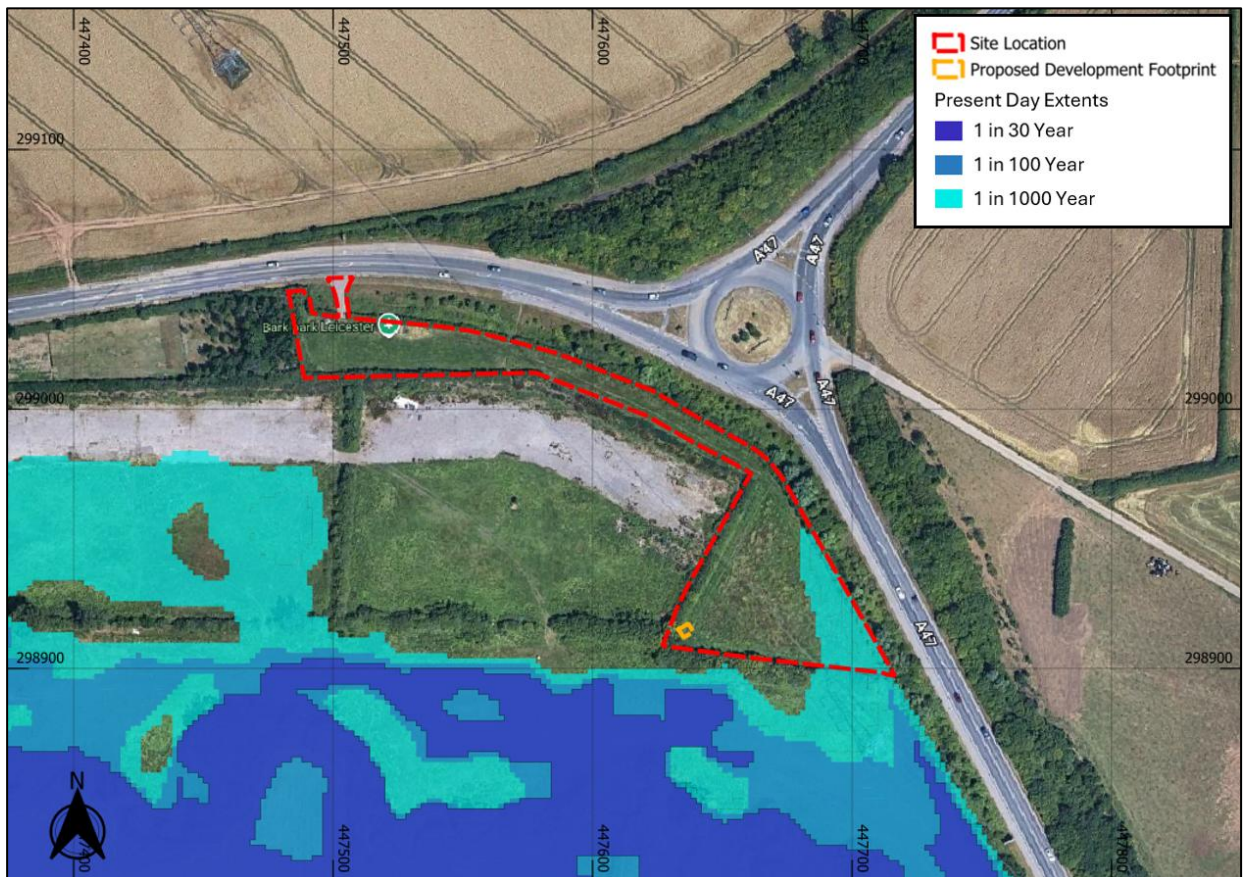


Figure 5: Present Day NaFRA2 Extents (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

Climate Change

- 4.9. The NaFRA2 data also contains flood extents with the addition of climate change. As can be seen in Figure 6, the southeastern corner of the area site is affected in 1 in 100 +CC event, however this does not affect any proposed built footprint.

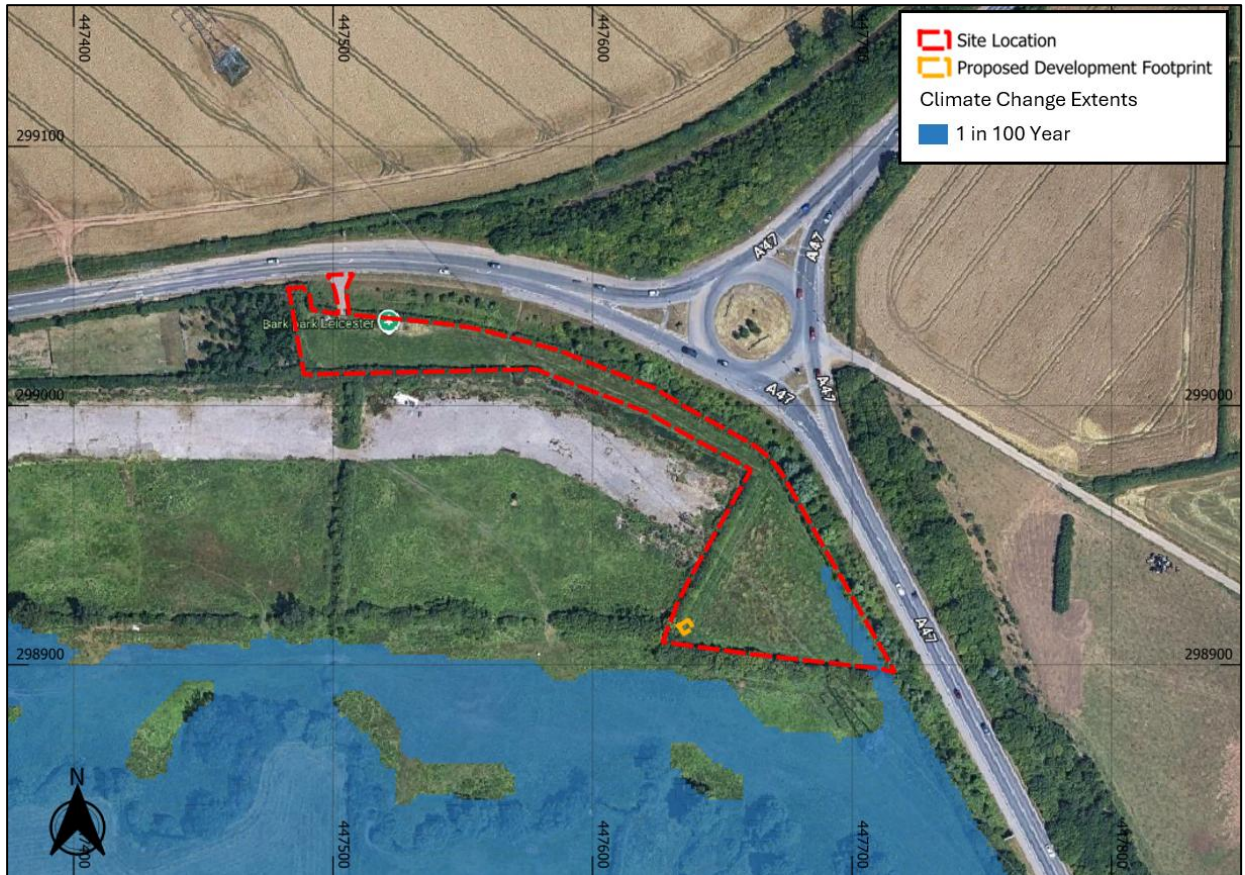


Figure 6: 1 in 100 +CC (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

Historical Fluvial Flooding

- 4.10. It is noted that, the EA Historic Flood Outline data and mapping shows that there are no records of fluvial flooding occurring on or in the vicinity of the site previously (Figure 7).

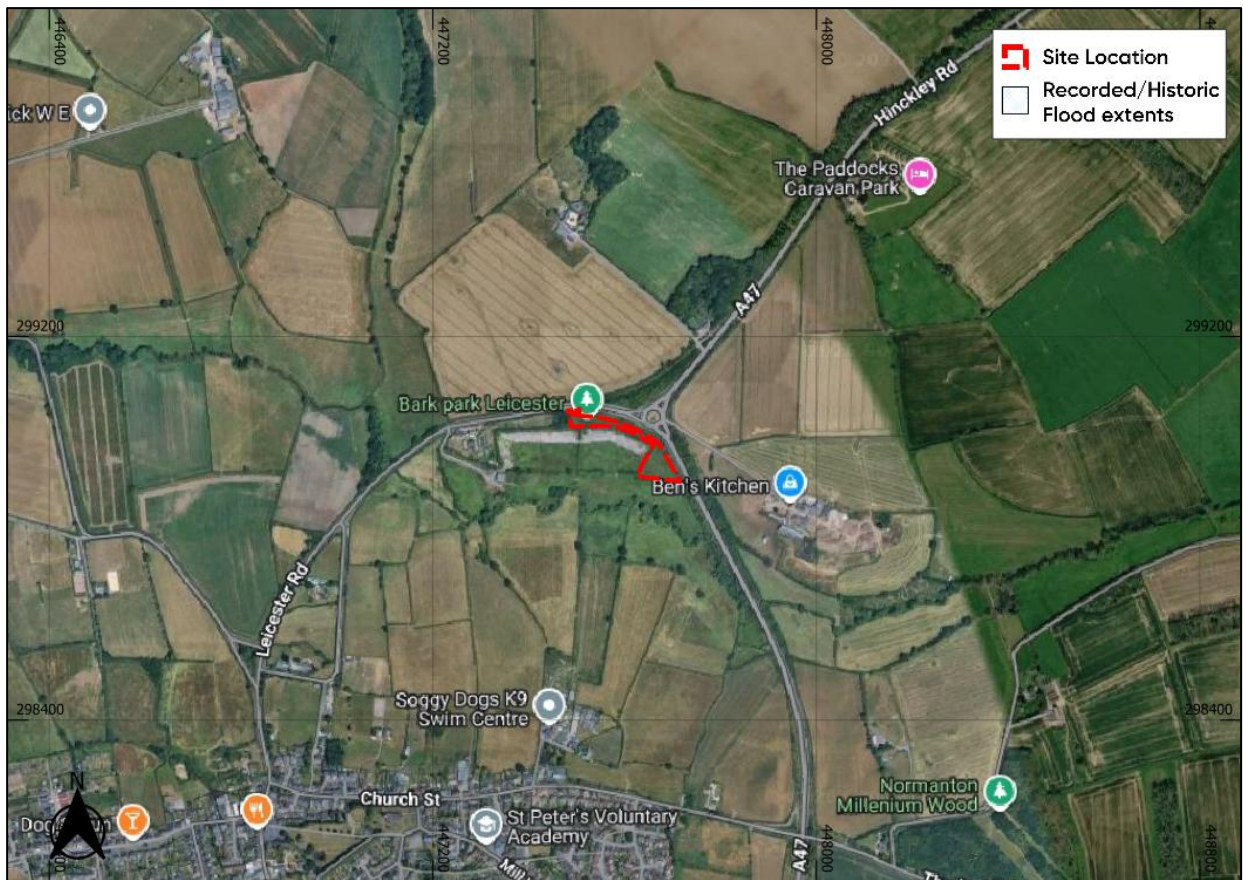


Figure 7: EA Historic Flood Mapping (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

Fluvial Flood Risk Summary

- 4.11. The majority of the site and the whole of the proposed development footprint is located within Flood Zones 1. Based on the NaFRA2 data, the proposed development is not affected any of the present day events, up to and including the 1 in 100 year event and not affected in the 'design' (1 in 100 +CC) flood scenario.
- 4.12. As such, the risk to the proposed development footprint from fluvial sources is considered is considered low.

Tidal

- 4.13. Tidal flooding occurs when a high tide and high winds combine to elevate sea levels. An area behind coastal flood defences can still flood if waves overtop the defences or break through them. Tidal flooding can also occur a long way from the coast by raising river levels. Water may overtop the river bank or river defences when tide levels are high.

- 4.14. The site is a significant distance from any tidal source and above the anticipated extreme tidal levels, even when considering the impacts of climate change.
- 4.15. Therefore, the risk of flooding from tidal sources is considered to be low.

Canals

- 4.16. The Canal and River Trust (CRT) generally maintains canal levels using reservoirs, feeders, and boreholes and manages water levels by transferring it within the canal system.
- 4.17. No CRT Canals were recorded within 750m of the site according to the UK CRT Network mapping¹⁰.
- 4.18. The risk of flooding to this site from canals is considered to be low.

Pluvial

- 4.19. Pluvial flooding can occur during prolonged or intense storm events when the infiltration potential of soils, or the capacity of drainage infrastructure is overwhelmed leading to the accumulation of surface water and the generation of overland flow routes.

EA Flood Map for Planning Service – Surface Water

- 4.20. The EA Flood Map for Planning Service in relation to Surface Water was published in May 2026. The Surface Water Spatial Planning Extents and Depths have been used within this FRA to assess the surface water flood risk to the site and proposed development.
- 4.21. These datasets show the extent of land at risk of flooding from surface water to a defined annual exceedance probability (AEP) or chance of flooding each year, taking into account the possible effects of climate change.
- 4.22. These datasets include the following scenarios:
- 0.1% AEP (1 in 1000); 1% AEP (1 in 100) and 3.3% AEP (1 in 30)
- 4.23. Alongside the following depth bands:

¹⁰ <https://canalrivertrust.org.uk/canals-and-rivers>

- Up to 150mm; 150 – 300mm; 300 – 600mm; 600 – 900mm; 900 – 1200mm; 1200 – 2300mm and over 2300mm.

4.24. Alongside the present day scenarios, climate change scenarios have been produced to indicate the predicted impacts of climate change on future flood risk. The climate change allowances are based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5. The 'Upper End' for the 2070s epoch (2061-2125) has been used for the climate change scenarios. The EA have chosen long-term epochs appropriate to support long-term planning and development decisions.

4.25. To provide a 'worst case' assessment, the climate change scenarios have been assessed below.

Climate Change Extents

4.26. As can be seen in Figure 8, the southeastern and northwestern corners are within the 1 in 30, 1 in 100, and 1 in 1000 year +Climate Change (CC) extents. As such, the 'design' 1 in 100 +CC depths will be assessed further below.

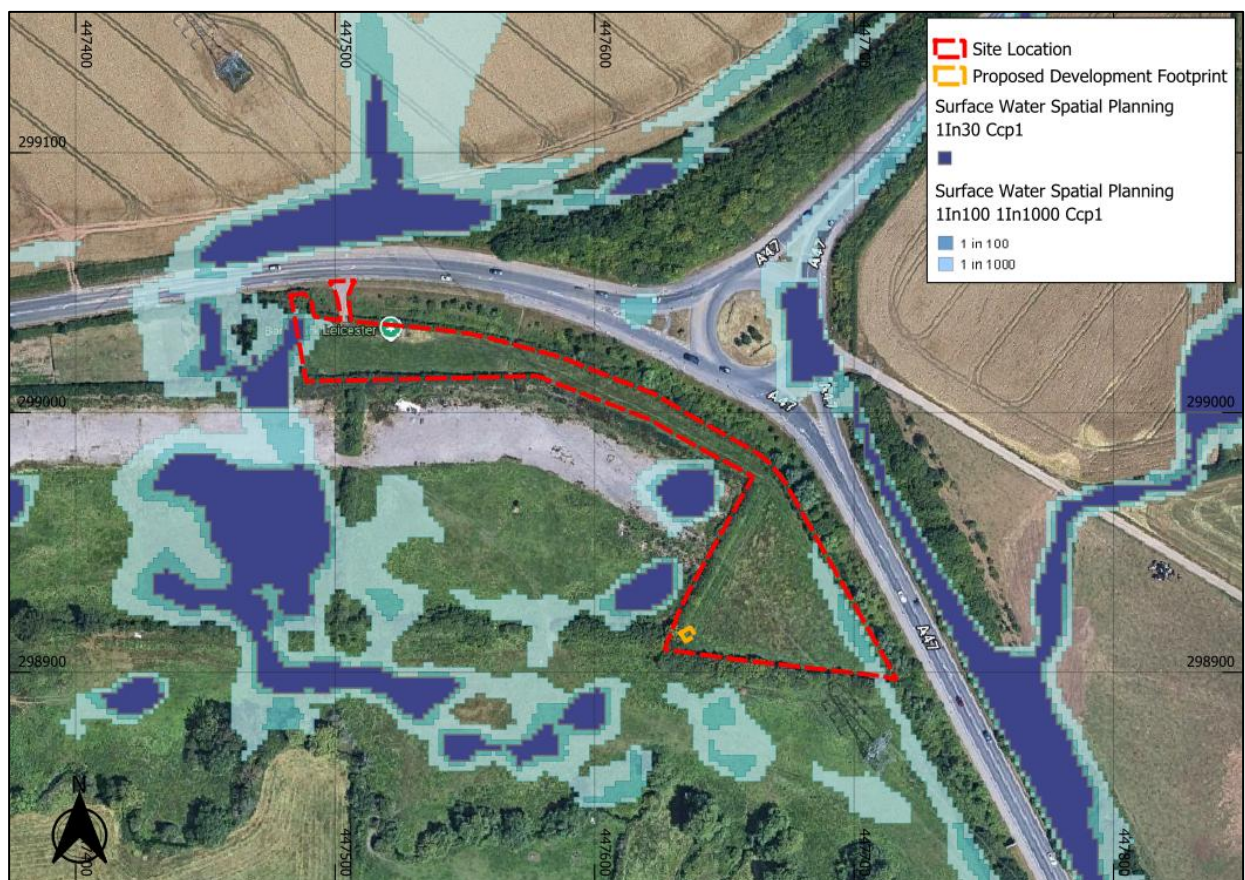


Figure 8: Surface Water EA Flood Map for Planning 1 in 30, 1 in 100 and 1 in 1000 +CC Extents (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

Climate Change Depths

- 4.27. Examination of the EA's Surface Water Spatial Planning dataset (Figure 9) shows that the proposed development footprint is not located within the 1 in 100 +CC extent. There are small areas in the east and west of the site that are affected by depths up to 300mm; however, this does not impact the proposed development footprint or access route.

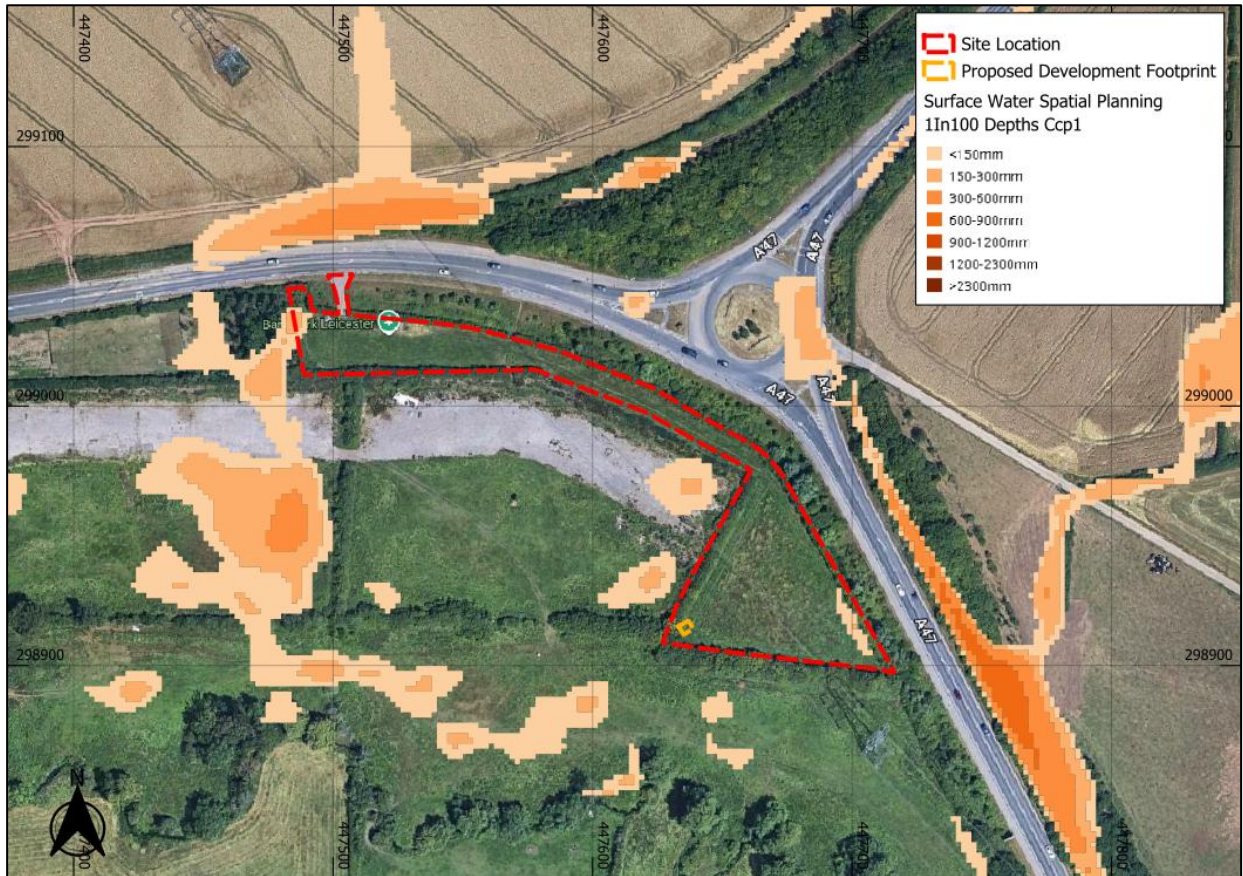


Figure 9: Surface Water EA Flood Map for Planning 1 in 100 +CC Depth (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

- 4.28. Based on the information reviewed, the risk of pluvial flooding to the site is considered to be low.

Reservoirs

- 4.29. Large waterbodies or reservoirs that have walls built above the surrounding ground level pose a risk of flooding. Walls could fail due to old age, accident, or because excess flood water has been added to the reservoir. Although a breach is unlikely the consequences would be significant, leading to rapid inundation of the downstream floodplain.

4.30. According to the EA's Flood Risk from Reservoirs mapping the site is at risk of flooding in the event of a breach at the Mallory Park Large Lake reservoir (Figure 10). The worst reservoir failure model is a 'dry day' scenario which impacts the southeastern corner of the site. This scenario predicts the flooding that would occur if the dam or reservoir failed when rivers are at normal levels meaning that it could be caused by reservoir walls failing due to old age, accident, or because excess flood water has been added to the reservoir.

Figure 10: EA Reservoir Flood Risk Mapping (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

4.31. All large reservoirs must be inspected and supervised by reservoir panel engineers as detailed by the Reservoirs Act 1975 in England and Wales. The EA are responsible to ensure that reservoirs are regularly inspected and essential safety work carried out. As reservoirs are highly managed the maximum flood extent provided in the EA Risk of Flooding from Reservoirs mapping is considered a worst-case scenario. As reservoir flooding is unlikely and the modelled flood depths are based on the worst-case scenario, flooding from this source may be considered to be low risk.

Groundwater

- 4.32. Groundwater flooding occurs in areas where underlying geology is permeable and water can rise within the strata sufficiently to breach the surface.
- 4.33. The British Geological Survey's (BGS) mapping shows superficial deposits of River Terrace Deposits comprised of sand and gravel underlying the site. The bedrock underlying the site is Gunthorpe Member comprised of mudstone.
- 4.34. There are no recorded available Historical BGS Boreholes within 300 meters of the site based on BGS mapping.
- 4.35. The SFRA references the JBA Groundwater Emergence map, however this was not made available at the time of writing this report. The SFRA does state:

Communities in the district that face the greatest risk of groundwater flooding, are where groundwater levels are at or very close (within 0.025m) to the surface include the northwestern areas of Whetstone, the southern areas of Littlethorpe, the central and southern parts of Cosby and the eastern fringe of Braunstone. Additionally, isolated areas with elevated groundwater levels can be found in Glenfield, New Lubbethorpe, Croft and Sapcote.

- 4.36. As the site is not within any of these named areas , there are no subterranean elements proposed, and the vulnerability is classed as water compatible, the risk from groundwater to the development is considered to be low.

Sewers

- 4.37. Foul or surface water sewers can be a cause of flooding if the drainage network becomes overwhelmed, either by blockage or due to local development beyond the designed capabilities of the drainage system.
- 4.38. The SFRA states:

Severn Trent Water is the water company responsible for the management of the sewerage networks across the district. No sewer records have been provided, however, their DWMP shows that seven of their wastewater treatment works are present within the district area.

Of those seven, three wastewater treatment works are highlighted to pose a risk of flooding. These treatment works are Stoney Stanton, Wanlip, and Wigston wastewater treatment works.

- 4.39. The site is not within the vicinity of these wastewater treatment works, and due to the rural nature of the site, and given the existing (agricultural field) and proposed (outdoor private hire dog park) site use, the risk to the development from sewer flooding is considered low.

5. Flood Risk Mitigation

Fluvial

- 5.1. The majority of the site and the whole of the proposed development footprint is located within Flood Zones 1. Based on the NaFRA2 data, the proposed development is not affected any of the present day events, up to and including the 1 in 100 year event and not affected in the 'design' (1 in 100 +CC) flood scenario.
- 5.2. As such, the risk to the proposed development footprint from fluvial sources is considered is considered low and mitigation is not considered necessary.

Pluvial

- 5.3. Examination of the EA's Surface Water Spatial Planning dataset shows that the proposed development footprint and the majority of the site are not located within the 1 in 100 +CC extent.
- 5.4. As such, the risk to the proposed development footprint from pluvial sources is considered is considered low and mitigation is not considered necessary.

Tidal, Canals, Reservoirs, Groundwater and Sewers

- 5.5. Flood risk from these sources is considered to be low, therefore mitigation is not required.

Increase to Flood Risk Elsewhere

- 5.6. It is understood that the proposal is for the change of use from agricultural field to sui generis use for an outdoor private hire dog park to include the addition a wooden field shelter.
- 5.7. The proposed development footprint is considered to be outside of all modelled fluvial and pluvial flood events. As such, the proposed development in isolation should have a negligible impact on flood risk elsewhere.

Flood Warnings

- 5.8. The site is not in an area where the EA provide specific flood alerts and warnings. To take a precautionary approach, the owner/manager of the site should monitor Met Office Weather Warnings to be prepared for extreme weather events.

- 5.9. Met Office is the national meteorological service for the UK; they issue weather warnings up to 5 days in advance, through the National Severe Weather Warning Service, when severe weather has the potential to bring impacts to the UK. It is also possible to stay up to date with weather warnings through the Met Office app (available on both android and apple), social media (e.g. X and Facebook) or email alerts.
- 5.10. During periods of bad weather, residents should monitor local weather reports and sign up for the Met Office UK weather warnings. Procedures should be formalised (if not done so already) in the event of a severe weather warning or flooding.

6. Conclusions

- 6.1. This FRA has been undertaken with reference to the requirements of NPPF and Planning Practice Guidance with respect to the development at Land Off Leicester Road (A47), East Shilton, Hinckley, Leicestershire, LE9 7DY. It has been written to support a planning application and prepared with due consideration to the nature of the proposed development to provide the appropriate level of detail.
- 6.2. An assessment of the risk of flooding from all sources has been undertaken and is summarised in the table below:

Source of Flooding	Flood Risk Summary
Fluvial	The majority of the site and the whole of the proposed development footprint is located within Flood Zones 1. Based on the NaFRA2 data, the proposed development is not affected any of the present day events, up to and including the 1 in 1000 year event and not affected in the 'design' (1 in 100 +CC) flood scenario. As such, the risk to the proposed development footprint from fluvial sources is considered is considered low and mitigation is not considered necessary.
Pluvial	Examination of the EA's Surface Water Spatial Planning dataset shows that the proposed development footprint and the majority of the site are not located within the 1 in 100 +CC extent. As such, the risk to the proposed development footprint from pluvial sources is considered is considered low and mitigation is not considered necessary.
Tidal, Canals, Reservoirs, Groundwater and Sewers	The site is considered to be at low risk from other sources.

- 6.3. The FRA supports the planning application and demonstrates that there is an acceptable level of flood risk to the site. The development does not increase flood risk off site or to the wider area.
- 6.4. This Flood Risk Assessment should be submitted as part of the planning application to satisfy the requirements under NPPF.

Appendix A - EA Consultation

**Product 4: Flood Risk Data Package for
LE9 7TJ, 447583, 298991**

EIR/2026/28934

Date: 02/07/2026

Flood Map for Planning: The Flood Map for Planning is now classed as Open Data. As such it can be downloaded free of charge under an open data licence from the following addresses:

- <https://flood-map-for-planning.service.gov.uk/>

This location is within Flood Zone 3.

The flood zones on this map:

- refer to the land at risk of flooding and do not refer to individual properties.
- refer to the probability of river and sea flooding.
- ignore the presence of defences,
- do not take into account potential impacts of climate change.
- The Flood Map for Planning on Gov.uk was last updated in Winter 2025 as part of our new National Flood Risk Assessment, NaFRA2.
- Our new National Flood Risk Assessment has improved the quality and consistency of our national flood risk products due to better methods and input data. This means there are some changes to flood risk information in many areas when the new data has been published.

Probability	Percentage chance of flooding each year
1 in 2 year	50%
1 in 5 year	20%
1 in 20 year	5%
1 in 50 year	2%
1 in 100 year	1%
1 in 1000 year	0.1%
Surface Water Flooding	
1 in 30	High Risk
1 in 100	Medium Risk
1 in 1000	Low Risk

Zone 1: Low Probability	Land having a less than 0.1% annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map for Planning – all land outside Zones 2, 3a and 3b)
Zone2: Medium Probability	Land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding. (Land shown in light blue on the Flood Map)
Zone 3a: High Probability	Land having a 1% (1 in 100) or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea. (Land shown in dark blue on the Flood Map)
Zone 3b: Functional Floodplain	• land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or • land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). • Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. • (Not separately distinguished from Zone 3a on the Flood Map)

Updated Climate Change Guidance: On 19th February 2016, the [Flood risk assessments: climate change allowances](#) was published on www.gov.uk website. It has replaced previous guidance [Climate Change Allowances for Planners](#). The climate change guidance can be found at: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

The climate change allowances for this location are:

-  **28% (central)**
-  **37% (higher central),**
-  **60% (upper)**

Modelled Information

This product 4 shows the updated flood zones 1, 2 and 3 from March 2025, however the flood levels or depth data is not currently available for all of the locations identified as at risk. You may wish to contact our Sustainable Places team at planning.trentside@environment-agency.gov.uk to set up a chargeable agreement to discuss your planning proposal further with our local flood risk team. Alternatively, you could contact us again at a later date when we might be in a position to provide flood depth associated with our New National Flood Risk Assessment system.

Defence Information Flood defence data is routinely updated and freely available at: [AIMS Spatial Flood Defences \(inc. standardised attributes\) - data.gov.uk](#) and [AIMS Asset Bundle - data.gov.uk](#).

There are no Environment Agency maintained raised defences in this area.

Historic Information:

We have no records of historic fluvial flooding at this location. However, we would advise that this does not mean there has never been historic flooding in this location or that the area is automatically free from a risk of flooding. We do not claim that all flood events have been recorded.

Surface Water & Drainage: The Environment Agency (empowered under the Water Resources Act 1991) concentrates on the major elements of the drainage system, managing flood risk arising from designated "main rivers" and the sea. The Flood & Water Management Act (2010) has given Lead Local Flood Authorities (LLFAs) responsibility for the management of local flood risk, which includes surface runoff, groundwater, and flooding from ordinary watercourses (smaller rivers and streams). The LLFA for this area is **Leicestershire County Council**, and we recommend that you contact them with concerns about any flooding issues for this area.

Further information and maps for surface water, ordinary watercourses, and reservoir flooding can be found here: <https://www.gov.uk/check-long-term-flood-risk> ; [Reservoir flood maps: when and how to use them - GOV.UK \(www.gov.uk\)](#)

Open Data Information: Many datasets are now classed as Open Data and as such can be downloaded free of charge under an open data licence from the following address: <https://data.gov.uk/publisher/environment-agency>

Permitting Information: Under the Environmental Permitting (England and Wales) Regulations 2016, any permanent or temporary works in, over or under a designated main river will require an Environmental Permit for Flood Risk Activities from the Environment Agency. Any permanent or temporary works within 8 metres of the top of bank of a designated main river, or landward toe of a flood defence may require an Environmental Permit for Flood Risk Activities from the Environment Agency. In addition, any permanent or temporary works within the floodplain of a designated main river may also require an Environmental Permit for Flood Risk Activities. To find out whether your activity requires a permit or falls under a relevant exclusion, exemption or standard rule please follow this link: <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits>. The Environment Agency require access to the watercourse and free movement up to 8m from the river bank/ defence for maintenance purposes.

Please note that a permit is separate to and in addition to any planning permission granted.

Strategic flood risk assessments: We recommend that you check the relevant local authority's strategic flood risk assessment (SFRA) as part of your work to prepare a site-specific flood risk assessment. This should give you information about the potential impacts of climate change in this catchment areas defined as functional floodplain flooding from other sources, such as surface water, ground water and reservoirs. This data has been generated by strategic scale flood models and is not intended for use at the individual property scale. If you're intending to use this data as part of a flood risk assessment, please include an appropriate modelling tolerance as part of your assessment. The Environment Agency regularly updates its modelling. We recommend that you check the data provided is the most recent, before submitting your flood risk assessment.

Flood Risk Assessment Advisory: All guidance on how to complete a full site specific Flood Risk Assessment (FRA) can be found here: [Flood risk and coastal change - GOV.UK \(www.gov.uk\)](#). Furthermore, information on how to use modelling for FRA's can be found here: [Using modelling for flood risk assessments - GOV.UK \(www.gov.uk\)](#). In addition, professional assistance can be provided by our planning officers, by contacting planning.trentside@environment-agency.gov.uk.

Flood risk assessment data



Location of site: 447659 / 298932 (shown as easting and northing coordinates)

Document created on: 17 June 2026

This information was previously known as a product 4.

Customer reference number: YHC6RY43CMN3

Map showing the location that flood risk assessment data has been requested for.



How to use this information

You can use this information as part of a flood risk assessment for a planning application. To do this, you should include it in the appendix of your flood risk assessment.

We recommend that you work with a flood risk consultant to get your flood risk assessment.

Included in this document

In this document you'll find:

- how to find information about surface water and other sources of flooding
- definitions for the terminology used throughout
- flood map for planning (rivers and the sea)
- information about strategic flood risk assessments
- information about this data
- information about flood risk activity permits
- help and advice

Information that's unavailable

This document **does not** contain:

- past floods
- flood defence locations and attributes
- modelled data
- modelled climate change data

We do not have past flooding data for this location.

Please note that:

- flooding may have occurred that we do not have records for
- flooding can come from a range of different sources
- we can only supply flood risk data relating to flooding from rivers or the sea

You can contact your Lead Local Flood Authority or Internal Drainage Board to see if they have other relevant local flood information. Please note that some areas do not have an Internal Drainage Board.

We aren't able to display flood defence locations and attributes as there are no formal flood defences in the area of interest.

There is not any modelled data available for this location. This is because detailed modelling hasn't been carried out in this area.

There is not any modelled climate change data for this location. This is because detailed modelling hasn't been carried out in this area. You will need to consider the [latest flood risk assessment climate change allowances](#) and factor in the new allowances to demonstrate the development will be safe from flooding.

Surface water and other sources of flooding

When using the surface water map on the [check your long term flood risk service](#) the following considerations apply:

- surface water extents are suitable for use in planning
- surface water climate change scenarios may help to inform risk assessments, but the available data fall short of what is required to assess planned development
- surface water depth information should not be used for planning purposes

To find out about other factors that might affect the flood risk of this location, you should also check:

- [reservoir flood risk](#)
- groundwater flood risk - you could use the [British Geological Survey groundwater flooding data](#), [groundwater: current status and flood risk](#) and the guide on [mining and groundwater constraints for development](#) - further information may be available from the lead local flood authority (LLFA)
- your local planning authority's SFRA, which includes future flood risk

Your Lead Local Flood Authority is Leicestershire County.

For information about sewer flooding, contact the relevant water company for the area.

Terminology used

Annual exceedance probability (AEP)

This refers to the probability of a flood event occurring in any year. The probability is expressed as a percentage. For example, a large flood which is calculated to have a 1% chance of occurring in any one year, is described as 1% AEP.

Metres above ordnance datum (mAOD)

All flood levels are given in metres above ordnance datum which is defined as the mean sea level at Newlyn, Cornwall.

Flood map for planning (rivers and the sea)

Your selected location is in flood zone 3.

Flood zone 3 shows the area at risk of flooding for an undefended flood event with a:

- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- between a 0.1% and 0.5% probability of occurring in any year for flooding from the sea
- between a 0.1% and 1% probability of occurring in any year for fluvial (river) flooding

It's important to remember that the flood zones on this map:

- refer to the land at risk of flooding and do not refer to individual properties
- refer to the probability of river and sea flooding, ignoring the presence of defences
- do not take into account potential impacts of climate change



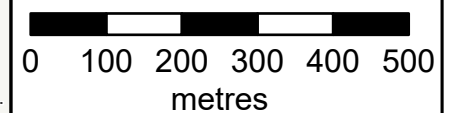
Flood map for planning

Location (easting/northing)
447659/298932

Scale
1:10,000

Created
17 Jun 2026

-  Selected area
-  Flood Zone 3
-  Flood Zone 2



Strategic flood risk assessments

We recommend that you check the relevant local authority's strategic flood risk assessment (SFRA) as part of your work to prepare a site specific flood risk assessment.

This should give you information about:

- the potential impacts of climate change in this catchment
- areas defined as functional floodplain
- flooding from other sources, such as surface water, ground water and reservoirs

Your Lead Local Flood Authority is Leicestershire County.

About this data

This data has been generated by strategic scale flood models and is not intended for use at the individual property scale. If you're intending to use this data as part of a flood risk assessment, please include an appropriate modelling tolerance as part of your assessment. The Environment Agency regularly updates its modelling. We recommend that you check the data provided is the most recent, before submitting your flood risk assessment.

Flood risk activity permits

Under the Environmental Permitting (England and Wales) Regulations 2016 some developments may require an environmental permit for flood risk activities from the Environment Agency. This includes any permanent or temporary works that are in, over, under, or nearby a designated main river or flood defence structure.

[Find out more about flood risk activity permits](#)

Help and advice

Contact the East Midlands Environment Agency team at emdenquiries@environment-agency.gov.uk for:

- [more information about getting a product 5, 6, 7 or 8](#)
- general help and advice about the site you're requesting data for