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Flood risk, water and environment

FloodMetric

AEG8483_PE12_Lincs_01

Site

River Cottage
Leadenhall Road
South Holland
Lincolnshire
PE12 8HD

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

aegaea

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enquiries@aegaea.com

020 8156 6076

www.aegaea.com

Summary

Site Address: River Cottage, Leadenhall Road, South Holland, Lincolnshire, PE12 8HD

Prepared For: Jason Asbury

Prepared On: 3 August 2025

Purpose: The FloodMetric report informs you about risk to your site from fluvial, pluvial, tidal and historic sources as well as from nationally modelled data sources provided by Fathom including present day and future climate data. This report also provides critical local policy information related to drainage and flood risk issues. Unless indicated, the FloodMetric report is unlikely to be suitable for submission to a Local Planning Authority. To the best of our knowledge the data is current and appropriate at the time of reporting.

Status

Canal Risk	Red	Amber	Green
Climate Change Risk	Red	Amber	Green
Historical Risk	Red	Amber	Green
Regulatory Risk	Red	Amber	Green
Reservoir Risk	Red	Amber	Green
Rivers And Sea Risk	Red	Amber	Green
Surface Water Risk	Red	Amber	Green
Watercourse Risk	Red	Amber	Green
Overall	Red	Amber	Green



Fig 1: Site plan

Responsible authorities

The site falls under the jurisdiction of a number of authorities that can be contacted for specific purposes.

- For flood issues the Lead Local Flood Authority is Lincolnshire County Council
- For development planning the Local Planning Authority is South Holland District Council
- For water supply the area Water Company is [Anglian Water](#)
- For sewers and drainage the Water Company is [Anglian Water](#)
- For flood models and details of flood defences the site is in the Lincolnshire and Northamptonshire Environment Agency area

Flood risk from rivers or the sea

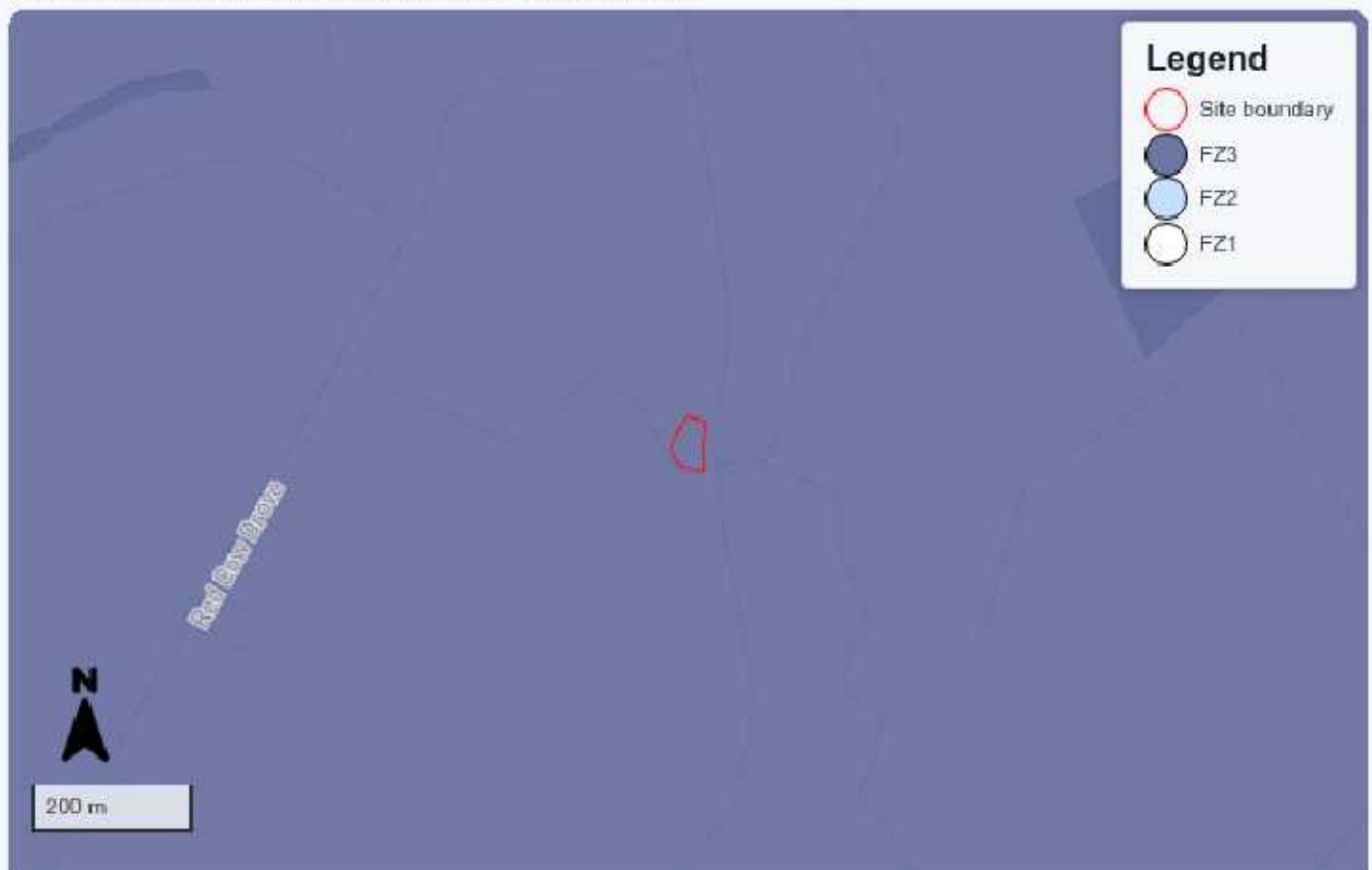


Fig 2: Flood Zones

An initial search suggests the site is within Flood Zone 3 (100%) as defined by the EA Flood Map for Planning and Strategic Flood Risk Assessment of the Local Planning Authority.

There are no main rivers in the vicinity of the site.

Risk of surface water flooding



Fig 3: Surface Water Flood Risk

Examination of the EA's Flood Risk from Surface Water mapping for High Risk, Medium Risk, and Low Risk AEP flood events shows the site and its immediate vicinity is at risk of flooding in 'Low' surface water flood events.

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.

Historical and recorded flooding

Our review of Recorded and Historical Flood Outlines within 250 metres of the site shows that the site is outside of past historical flood events.

Records of past flooding, mostly since 1946, are published in the Historic Flood Map.

There is no record of historical fluvial flooding on or near the site.

There is no record of historical tidal or sea flooding within 250 metres of the site.

There is no record of historical flooding within 250 metres of the site specifically linked to groundwater.

It is also possible for a property to have been affected in the past by heavy or prolonged rain or groundwater. Local Authorities often publish mapping of historical surface water flood incident records. Reviewing these records is out-of-scope for this statement. These would be reviewed in a more detailed report such as a Flood Risk Assessment.

Flood defences

We have compared flood zones taking into account flood defences with flood zones assuming that flood defences have failed. The site does not appear to be in an area that benefits from flood defences but this is an indication and may require an expert to confirm it.

Climate Change

The site is in the Welland management catchment. It is in Flood Zone 3 (high risk of flooding) leading to a peak river flow allowance category of higher central, central, or development not permitted depending on the site vulnerability and whether it is FZ3a or FZ3b.

Fathom data indicates that the site is at risk of being affected by the 1 in 100 year fluvial flood event by 2070 at a level of between 0.0 and 1.17 metres above ground level. There are conflicting opinions on whether the site may be affected by surface water flooding in the future. EA data indicates a 0.1% to 1% surface water risk, but Fathom data indicates no risk of flooding from pluvial sources. Surface water flood estimation is very uncertain, both in the methods used to estimate this, and in estimating extreme rainfall. In addition, all the models rely on potentially differing assumptions around drainage and infiltration rates.

Present day: 2020

2020	Fluvial depth		Pluvial depth		Coastal depth	
AEP	UK Defended	Global Undefended	UK Defended	Global Undefended	UK Defended	Global Undefended
1 in 20 (5%)	0m	0m	0m	-	0m	1.34m
1 in 100 (1%)	1.21m	0m	0m	-	0m	0.12-2.2m
1 in 200 (0.5%)	1.27m	0m	0m	-	0.1-1.99m	0.5-2.65m

1 in 1000 (0.1%)	1.35m	0m	0.91m	-	0.24-2.08m	1.64-3.81m
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Near future: 2070 RCP 8.5 climate change scenario (equivalent to NPPF Central Allowance for all vulnerability except essential infrastructure)

2070 RCP8.5	Fluvial depth		Pluvial depth		Coastal depth		
	AEP	UK Defended	Global Undefended	UK Defended	Global Undefended	UK Defended	Global Undefended
1 in 20 (5%)	0m	-	0m	-			-
1 in 100 (1%)	1.17m	-	0m	-			-
1 in 200 (0.5%)	1.25m	-	0m	-	0.19- 2.06m		-
1 in 1000 (0.1%)	1.33m	-	0.93m	-	0.52-2.3m		-

Critical Drainage Areas

We could not assess the site for Critical Drainage Areas because the local authority has not published this information.

Critical Drainage Areas are places where drainage could cause flooding problems elsewhere. They are discrete geographic areas (usually a hydrological catchment) where multiple and interlinked sources of flood risk (surface water, groundwater, sewer, main river and/or tidal) cause flooding in one or more Local Flood Risk Zones (sometimes called surface water flood risk hotspots) during severe weather thereby affecting people, property, or local infrastructure. Land which has been identified by the Environment Agency as having critical drainage areas have a separate, yet similar, function and are referred to as Areas with Critical Drainage Problems (ACDPs).

Reservoir failure

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.

Flood warning services

The site is in the Environment Agency 'Tidal flooding from the Right Bank of the River Welland near Spalding and Moulton Common' flood warning service area. This service allows site owners to register an address along with contact details so that, in the event of a flood being forecast, they are sent an alert. As a further precaution and risk reduction, the owner of the site should sign up.

To sign up for the EA flood warning service visit <https://www.fws.environment-agency.gov.uk/app/olr/home> or call Call Floodline for advice 24x7: Telephone: 0345 988 1188, Textphone: 0345 602 6340

Applicable policies

The Local Planning Authority will make decisions on what is, and isn't, allowed to be built based on the policies stated in the National Planning Policy Framework and their Local Plan.

It is also possible that a new Local Plan is being created and that policies from that may be taken into account even though it hasn't been adopted yet.

The Local Authority may publish a number of Supplementary Planning Documents to amplify the policies of their local plan.

This Local Authority is part of South East Lincolnshire Joint Strategic Planning Committee.

Policy 4: Approach to Flood Risk

Development proposed within an area at risk of flooding (Flood Zones 2 and 3 of the Environment Agency's flood map or at risk during a breach or overtopping scenario as shown on the flood hazard and depths maps in the Strategic Flood Risk Assessment) will be permitted, where:

- 1. It can be demonstrated that there are no other sites available at a lower risk of flooding (i.e. that the sequential test is passed). The sequential test will be based on a Borough or District wide search area of alternative sites within the defined settlement boundaries, unless local circumstances relating to the catchment area for the development justify a reduced search area, i.e. there is a specific need for the development in that location. The sequential test is not required for sites allocated in the Local Plan, minor development or change of use (except for a change of use to a caravan, camping or chalet site, or to a mobile home or park home site).
- 2. It can be demonstrated that essential infrastructure in FZ3a and FZ3b, highly vulnerable development in FZ2 and more vulnerable development in FZ3 provide wider sustainability

benefits to the community that outweigh flood risk.

- 3. The application is supported with a site-specific flood risk assessment, covering risk from all sources of flooding including the impacts of climate change and which:
 - a. demonstrate that the vulnerability of the proposed use is compatible with the flood zone;
 - b. identify the relevant predicted flood risk (breach/overtopping) level, and mitigation measures that demonstrate how the development will be made safe and that occupants will be protected from flooding from any source;
 - c. propose appropriate flood resistance and resilience measures (following the guidance outlined in the Strategic Flood Risk Assessment), maximising the use of passive resistance measures (measures that do not require human intervention to be deployed), to ensure the development maintains an appropriate level of safety for its lifetime;
 - d. include appropriate flood warning and evacuation procedures where necessary (referring to the County's evacuation routes plan), which have been undertaken in consultation with the authority's emergency planning staff;
 - e. incorporates the use of Sustainable Drainage Systems (SuDS) (unless it is demonstrated that this is not technically feasible) and confirms how these will be maintained/managed for the lifetime of development (surface water connections to the public sewerage network will only be permitted in exceptional circumstances where it is demonstrated that there are no feasible alternatives);
 - f. demonstrates that the proposal will not increase risk elsewhere and that opportunities through layout, form of development and green infrastructure have been considered as a way of providing flood betterment and reducing flood risk overall;
 - g. demonstrates that adequate foul water treatment and disposal already exists or can be provided in time to serve the development;
 - h. ensures suitable access is safeguarded for the maintenance of water resources, drainage and flood risk management infrastructure.

Development in all flood zones, and development over 1 hectare in size in Flood Zone 1, will need to demonstrate that surface water from the development can be managed and will not increase the risk of flooding to third parties.

Change of use of existing buildings will be supported providing they do not pose an increase in risk to people. Change of use that would result in self-contained ground floor residential accommodation in areas of hazard rating 'danger for some', 'danger for most' and 'danger for all' will not be supported. In these areas unrestricted access to a habitable room above the flood level and an emergency evacuation plan will be required.

Caravans, mobile homes and park homes intended for permanent residential use will not be permitted in areas at risk of flooding. Caravan, chalet, log cabin, camping and touring sites at risk of fluvial flooding where there is a 'danger for most' and 'danger for all' will not be permitted. Occupancy of caravan, chalet, log cabin, camping and touring sites at risk of tidal flooding will not be permitted to open between 1st November in any one year and the 14th March in the succeeding year.

No development will be permitted within a 50m buffer from the toe of the raised Witham Haven Banks (flood defences), as shown on the indicative Plan contained in Appendix 10, to allow access for construction and maintenance. Flood risk management infrastructure shall be provided at the strategic level, where development opportunities allow, to reduce the hazard and probability of flooding.

- Policy 4, South East Lincolnshire Local Plan 2011-2036, p.31-33, South East Lincolnshire Joint Strategic Planning Committee (2019)

The Local Planning Authority has 1 policy specifically about flooding:

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