

FOR PLANNING, DEVELOPMENT AND SITE APPRAISAL

Site Flood Screening Report

Town Meadows, Stamford

The published flood mapping for the site, and what it means for development.

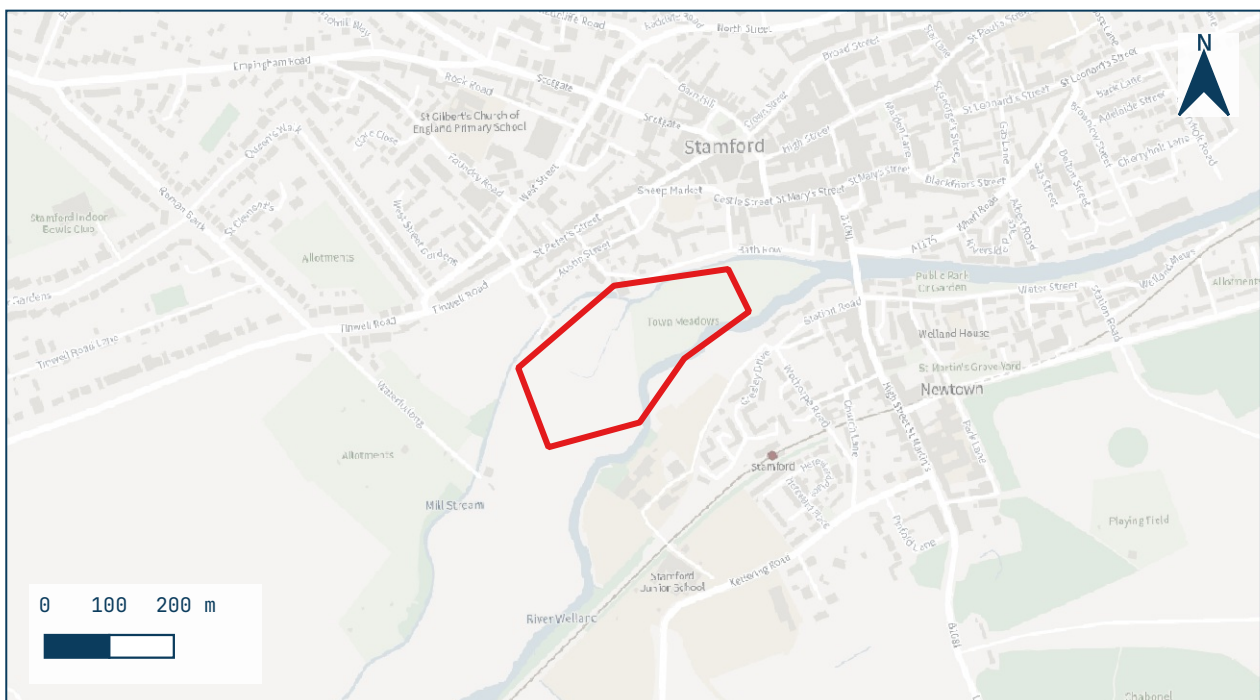


Figure 1 Site location

PREPARED BY	Stormflow Solutions Ltd
REFERENCE	FC261001TOWNME · Rev A
DATE	01 October 2026
GRID REFERENCE	TF 02699 06808
SITE AREA	5.31 hectares (53,143 square metres)



Site overview

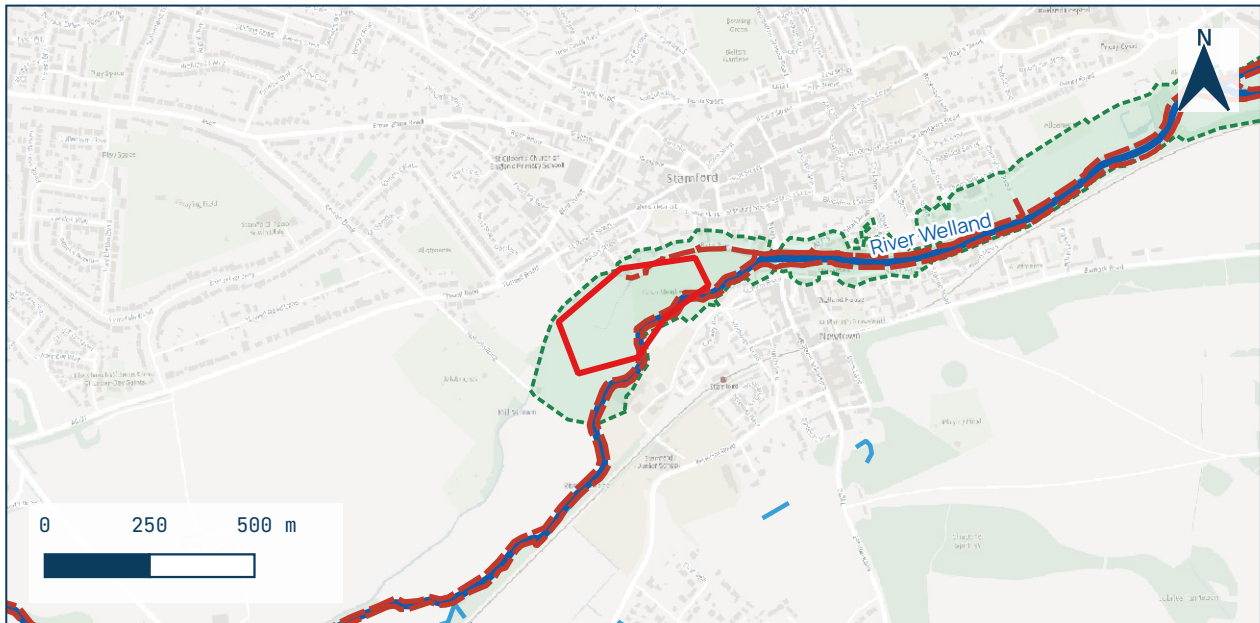


Figure 2 Site location and nearby watercourses

KEY

	Site boundary		Flood defence
	EA main river		EA flood warning area
	OS watercourse		

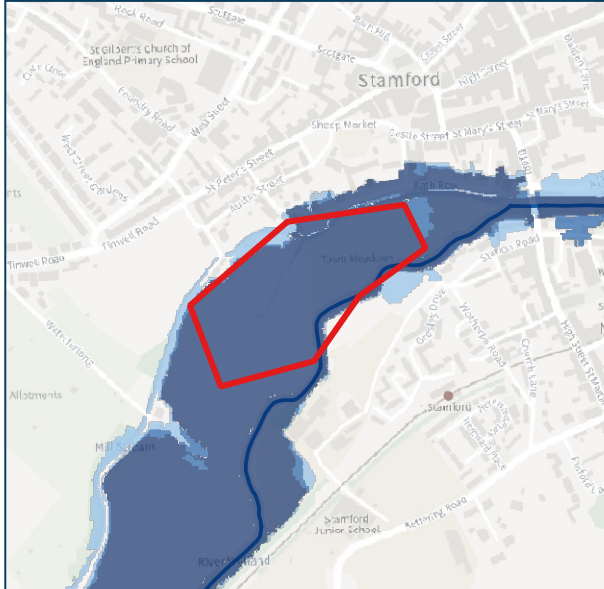
ADDRESS	Town Meadows, Stamford
LOCAL AUTHORITY	South Kesteven
GRID REFERENCE	TF 02699 06808
SITE AREA	5.31 hectares
RIVER CATCHMENT	Welland, conf Langton Bk to conf Gwash (Anglian river basin district)
FLOOD ALERT AREA	Welland Valley
FLOOD WARNING AREA	River Welland in Stamford

- Mill Stream, an ordinary watercourse, runs through the site for about 80 m. This is an important constraint on the layout: work in or near it needs consent from the Lead Local Flood Authority, and flooding from it may not be shown on the Flood Zones.
- An Environment Agency main river is shown to intersect the site boundary.
- Work within 8 m of a main river (16 m if tidal) normally needs a flood risk activity permit from the Environment Agency, and work on an ordinary watercourse needs consent from the Lead Local Flood Authority or Internal Drainage Board.



Flooding overview

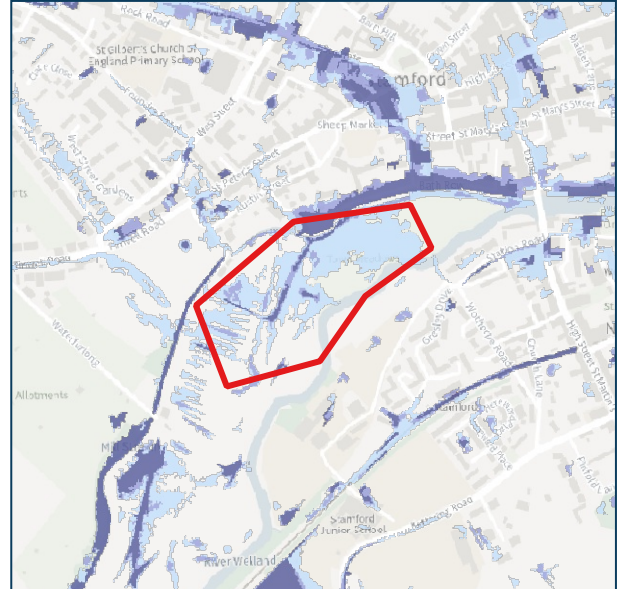
The four main flood sources at a glance. Each source is covered in detail on the following pages, with the overall result in the Flood risk summary.



Rivers and the sea

HIGH

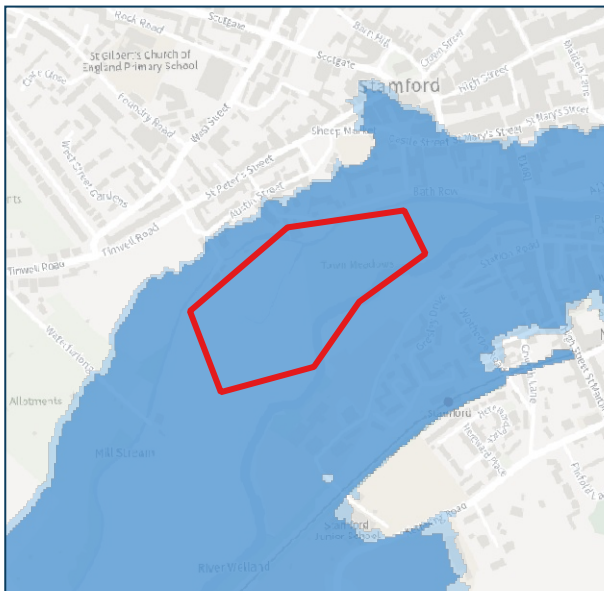
Allowing for flood defences, most of the site is at risk of flooding from rivers or the sea, reaching high risk (more than a 3.3% chance each year).



Surface water

MODERATE

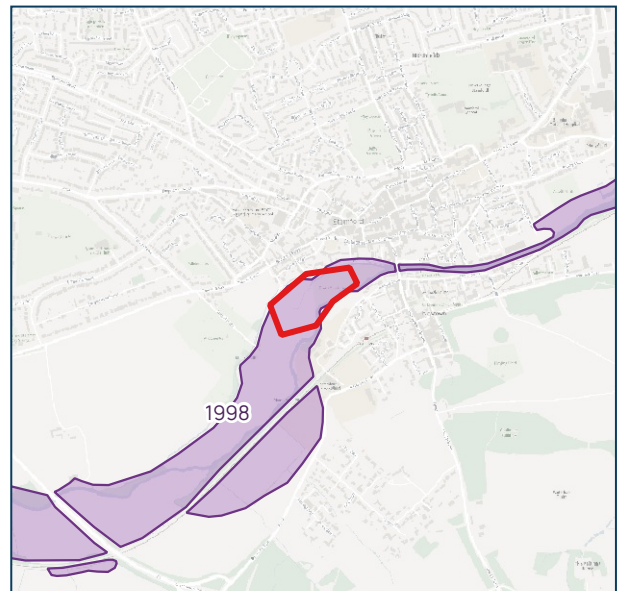
A large part of the site is shown at risk of surface water flooding, rising to high risk in places.



Reservoirs

MODERATE

The site is inside the reservoir flood extent for a dry day. Reservoir failure is very unlikely, so this is rated Moderate at most.



Historic flooding

HIGH

The Environment Agency has a record of flooding on most of the site.



Rivers and the sea

HIGH

Allowing for flood defences, most of the site is at risk of flooding from rivers or the sea, reaching high risk (more than a 3.3% chance each year).

Defended

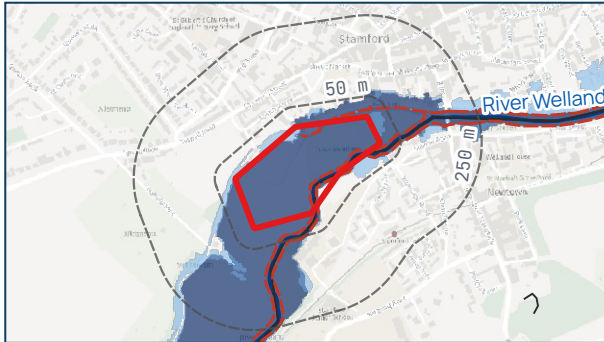


Figure 3 Defended extents

KEY

- Site boundary
- High: >3.3% chance each year
- Moderate: >1% chance each year
- Low: >0.1% chance each year
- EA main river
- OS watercourse
- Flood defence

- High risk covers most of the site. Medium, low and very low risk each cover a very small part of the site, along the north side of the site.
- About 190 m of the River Welland, an Environment Agency main river, runs inside the site boundary. The river channel is itself mapped as at risk, so part of the risk shown on the site is the channel and its banks.
- Depth: on parts of the site there is a high chance of flood water deeper than 1.2 m (NaFRA2 depth mapping).
- Flood defence recorded on the site: engineered high ground, rated to protect against floods up to a 20% chance each year; flood gate, rated to protect against floods up to a 20% chance each year; wall, rated to protect against floods up to a 20% chance each year.

Undefended

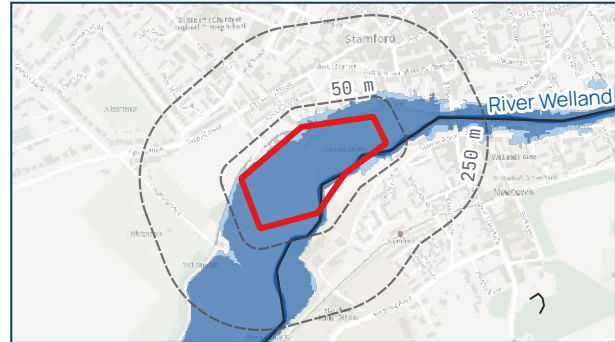


Figure 4 Undefended extents

KEY

- Site boundary
- Moderate: >1% chance each year
- Low: >0.1% chance each year
- EA main river
- OS watercourse

- Ignoring defences, most of the site is in the area with a 1% or greater chance of flooding each year.
- The Environment Agency does not publish a 3.3% area ignoring defences, so this map shows the 1% and 0.1% areas only.

About this data

Both maps come from the Environment Agency national flood risk assessment (NaFRA2). The defended map allows for existing flood defences and is the basis of the rating. The undefended map shows what could flood if the defences failed or were overtopped. Defences reduce the chance of flooding but do not remove it.



Rivers and the sea with climate change

HIGH

Allowing for flood defences and climate change, the whole site is at risk of flooding from rivers or the sea, reaching high risk (more than a 3.3% chance each year).

Defended

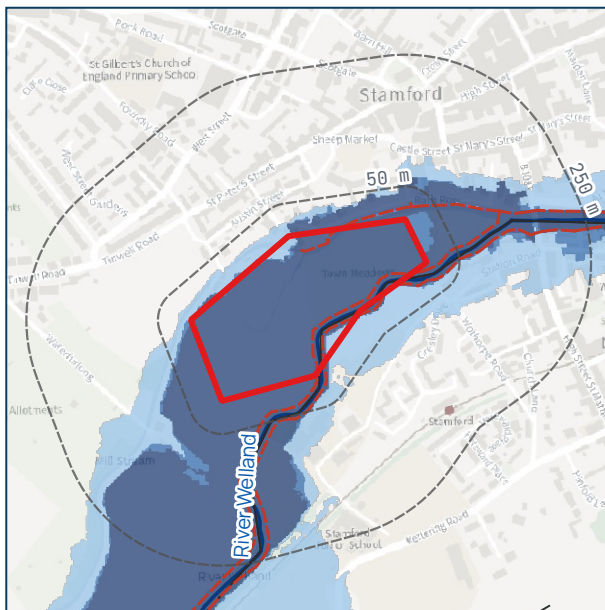


Figure 5 Defended extents, future

KEY

- Site boundary
- High: >3.3% chance each year
- Moderate: >1% chance each year
- Low: >0.1% chance each year
- EA main river
- OS watercourse
- Flood defence

- High risk covers most of the site. Medium, low and very low risk each cover a very small part of the site, along the north side of the site.

Undefended

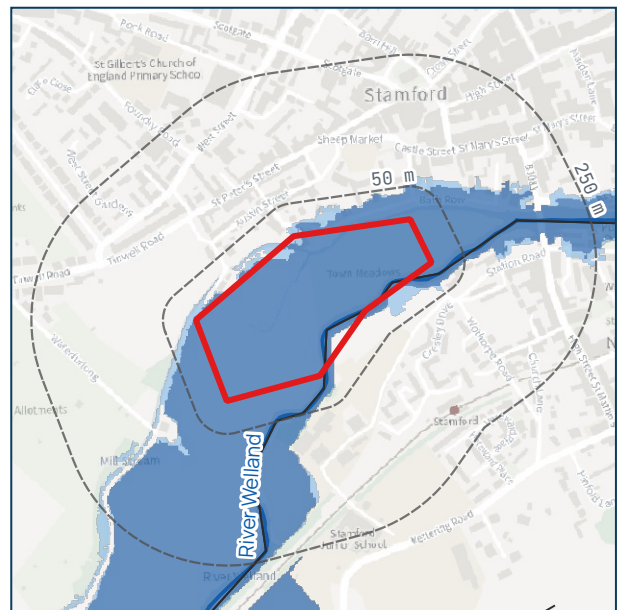


Figure 6 Undefended extents, future

KEY

- Site boundary
- Moderate: >1% chance each year
- Low: >0.1% chance each year
- EA main river
- OS watercourse

- Ignoring defences and allowing for climate change, most of the site is in the area with a 1% or greater chance of flooding each year.

About this data

As on the previous page, from the NaFRA2 climate change scenario, using central allowances for the 2070 to 2125 period. The defended map is the basis of the rating.



Surface water

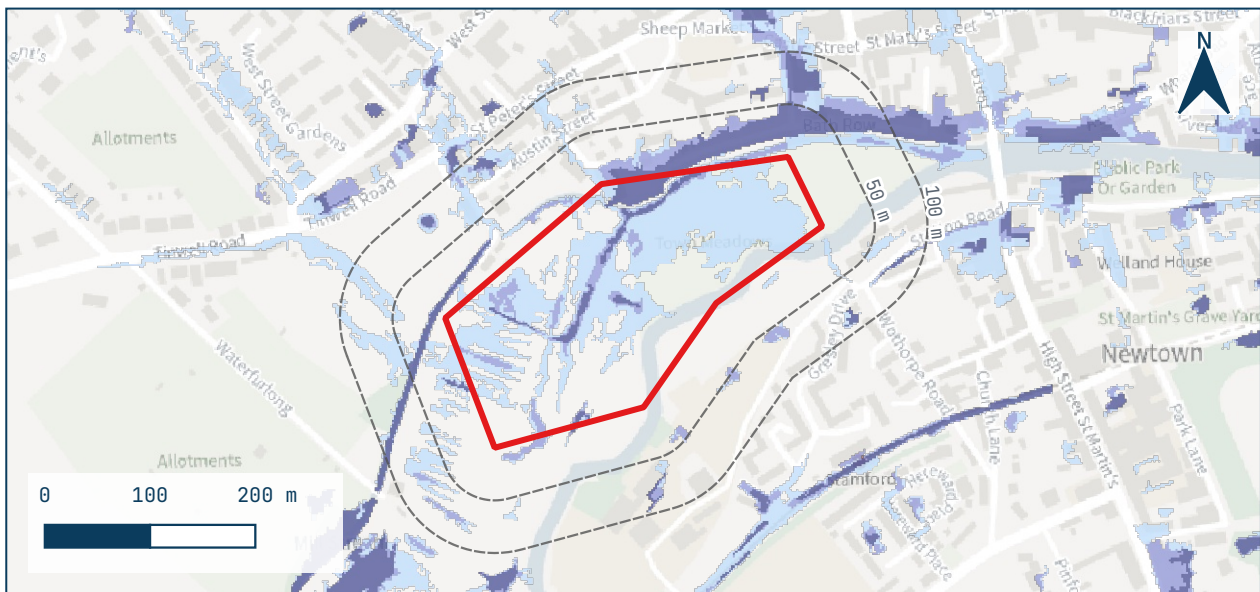
MODERATE

Figure 7 Risk of flooding from surface water

KEY

 Site boundary

Surface water, chance each year

 High: >3.3%

 Moderate: >1%

 Low: >0.1%

 Search distance

What we found

A large part of the site is shown at risk of surface water flooding, rising to high risk in places.

- Low risk covers a large part of the site, across the middle of the site. High and medium risk each cover a very small part of the site, along the north side of the site. The rest of the site is not shown at risk.
- High risk means a chance of flooding each year greater than 3.3%.
- High risk covers only a very small part of the site, so the rating is Moderate. That area still needs to be understood and allowed for.
- Depth: on parts of the site there is a high chance of surface water deeper than 0.6 m and a medium chance deeper than 1.2 m (NaFRA2 depth mapping).
- Lincolnshire County Council is the Lead Local Flood Authority, responsible for flooding from surface water, groundwater and small watercourses, and consulted on major planning applications. It can tell you about any past flood investigations in the area.

About this data

From the Environment Agency national flood risk assessment (NaFRA2). It shows where rainfall could flow or pond on the ground before reaching a drain or watercourse. It is national modelling, so small patches may not match conditions on the ground.



Surface water with climate change

MODERATE

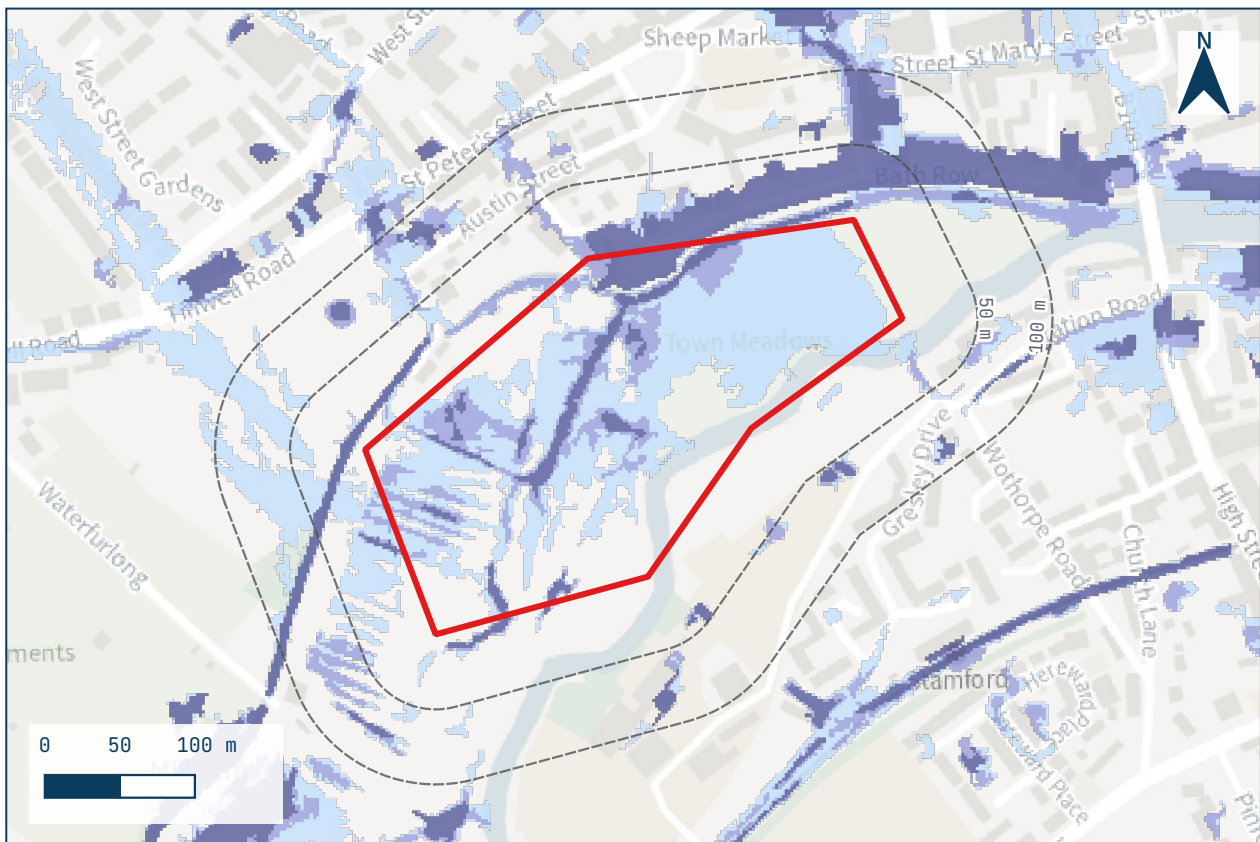


Figure 8 Risk of flooding from surface water, climate change scenario

KEY

 Site boundary

Surface water, chance each year

High: >3.3%

Moderate: >1%

Low: >0.1%

Search distance

What we found

A large part of the site is shown at risk of surface water flooding under the climate change scenario, rising to high risk in places.

- Low risk covers a large part of the site, across the middle of the site. High and medium risk each cover a small part of the site, across the middle of the site. The rest of the site is not shown at risk.
- High risk means a chance of flooding each year greater than 3.3%.
- High risk covers only a small part of the site, so the rating is Moderate. That area still needs to be understood and allowed for.

About this data

From the Environment Agency national flood risk assessment (NaFRA2). It shows where rainfall could flow or pond on the ground before reaching a drain or watercourse. It is national modelling, so small patches may not match conditions on the ground. The climate change scenario uses the central allowance for rainfall intensity over the 2070 to 2125 period.



Reservoirs

MODERATE

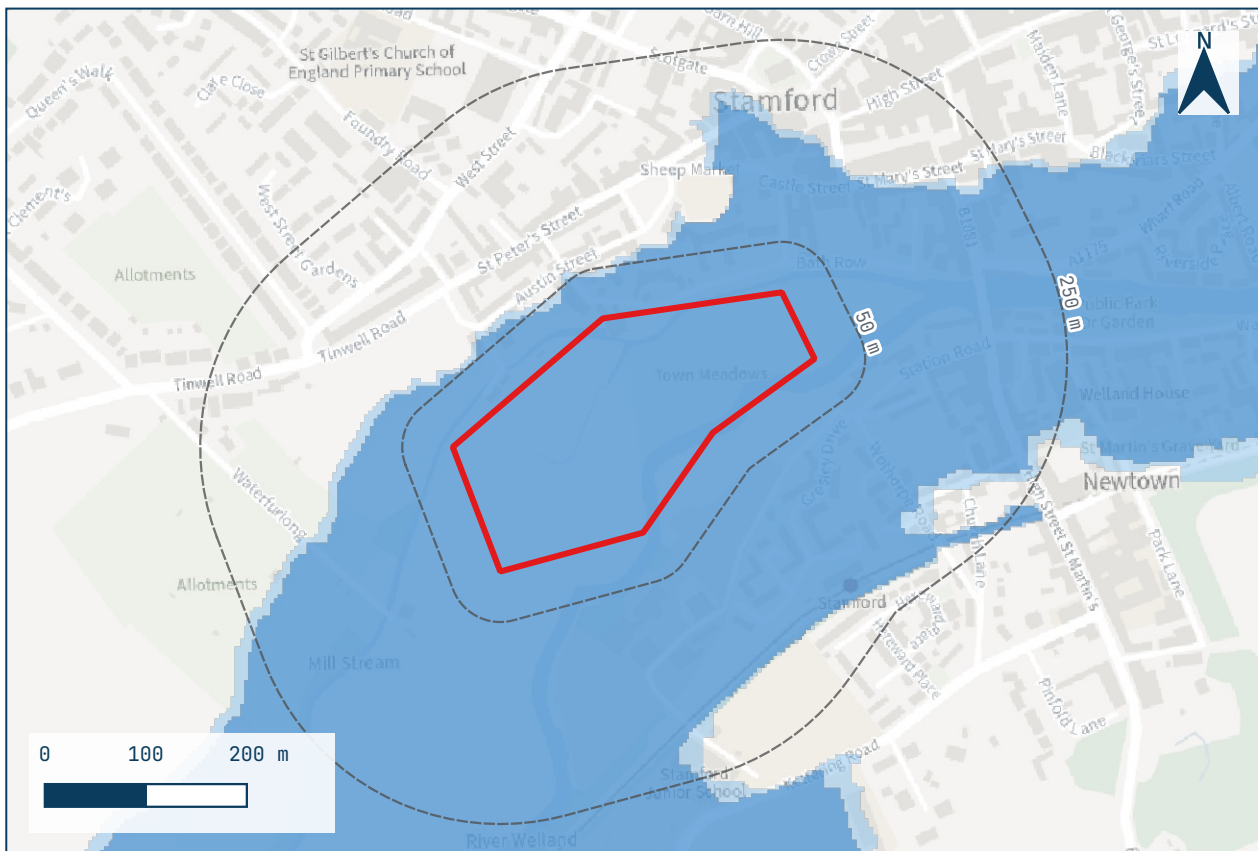


Figure 9 Reservoir flood extents, dry day and wet day

KEY

 Site boundary

Reservoir flood extent

 Dry day

 Wet day, rivers already high

 Search distance

What we found

The site is inside the reservoir flood extent for a dry day. Reservoir failure is very unlikely, so this is rated Moderate at most.

- This is a worst case scenario used for emergency planning. Reservoir failure is extremely rare in the UK because large reservoirs are inspected and maintained under the Reservoirs Act 1975.
- Reservoirs whose flood extents cover the site:
 - Eyebrook (Tata Steel UK Limited)
 - Rutland Water, Empingham (Anglian Water Services Ltd)
 - Medbourne Flood Storage Reservoir (Environment Agency)

About this data

The Environment Agency maps the area that could flood if a large reservoir failed, on a dry day and on a wet day when rivers are already high. It shows where flooding could happen, not how likely it is.



Historic flooding

HIGH

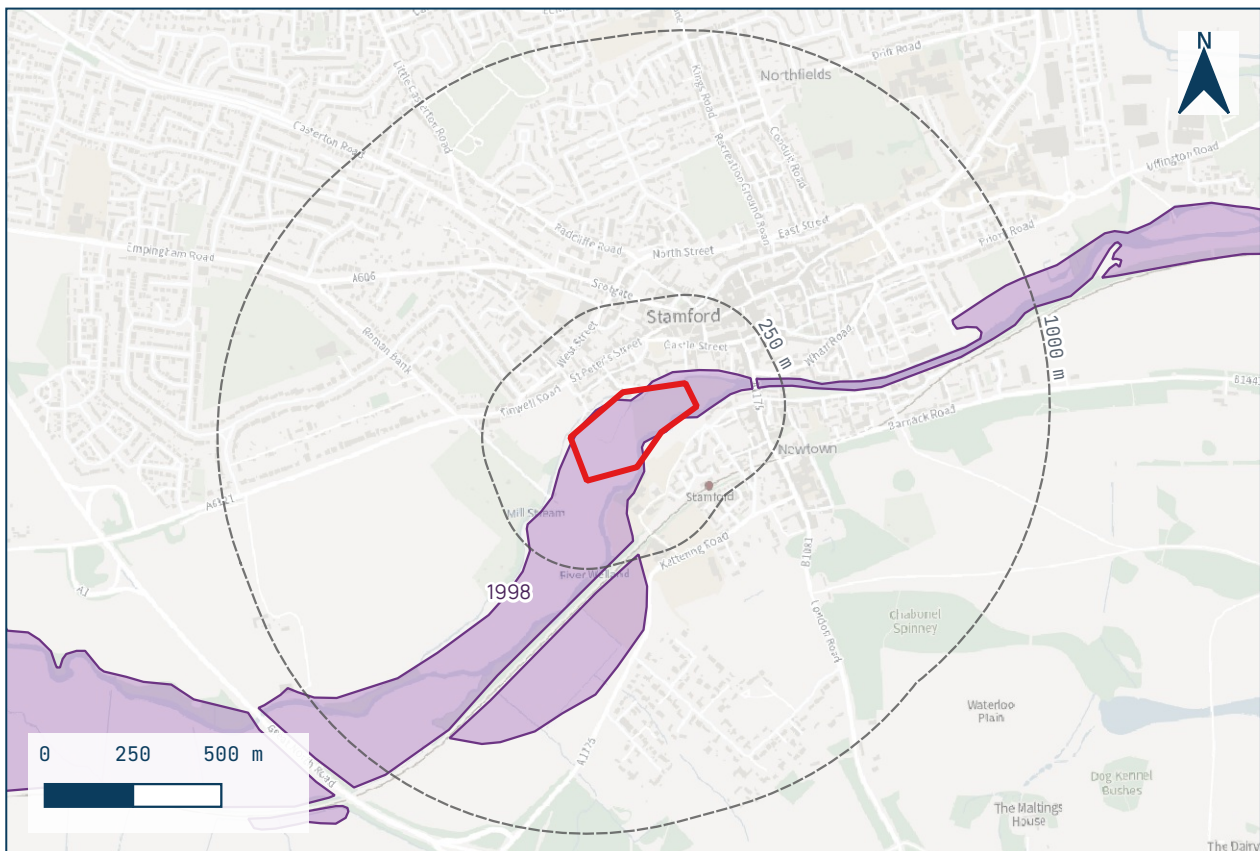


Figure 10 Recorded flood outlines, labelled by year

KEY

-  Site boundary
-  Recorded flood outline
-  Search distance

What we found

The Environment Agency has a record of flooding on most of the site.

- Records that cover the site: April 1998, main river (River Welland).
- Recorded flood events within 1 km of the site, most recent first:
 - April 1998, main river (River Welland)

About this data

Recorded Flood Outlines show where the Environment Agency holds records of past river, sea and groundwater flooding. The absence of a record does not prove an area has never flooded, and surface water or sewer flooding is often not captured.



Groundwater

LOW

No groundwater flooding risk is indicated.

Superficial deposits

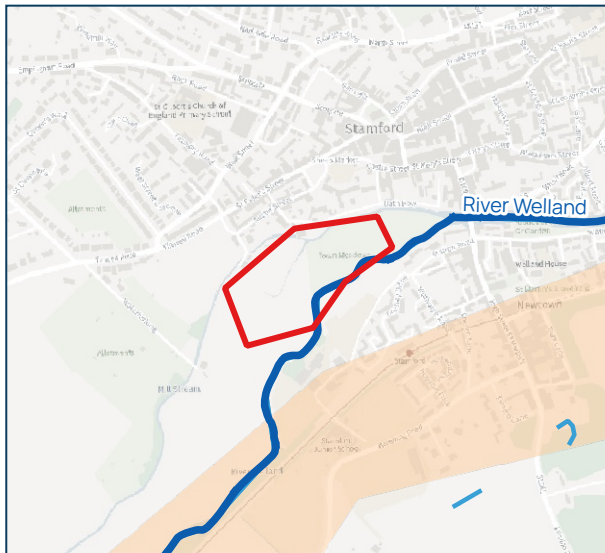


Figure 11 BGS superficial deposits

KEY

- Site boundary
- EA main river
- OS watercourse

Superficial deposits (BGS)

- Alluvium (clay and silt and sand)
- River Terrace Deposits (sand and gravel)

Bedrock

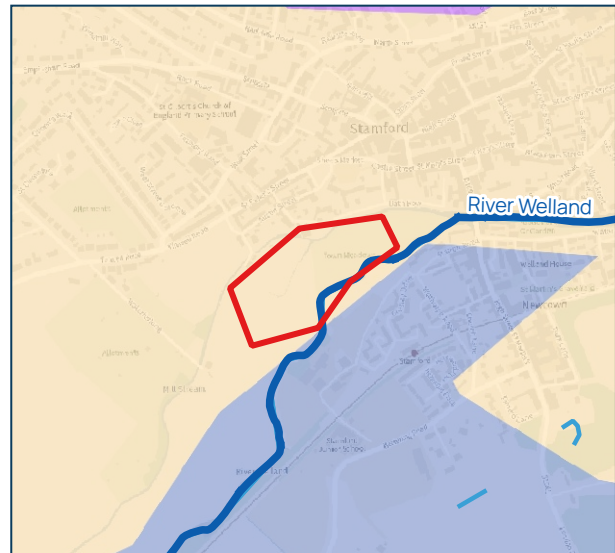


Figure 12 BGS bedrock

KEY

- Site boundary
- EA main river
- OS watercourse

Bedrock (BGS)

- Inferior Oolite Group
- Lias Group

- Superficial deposits at the site: none recorded at this map scale.
- Bedrock at the site: Inferior Oolite Group (limestone, sandstone, siltstone and mudstone).
- This rock has both permeable layers (limestone and sandstone) and low permeability layers (mudstone and siltstone).
- The site is not in a groundwater flood alert area.
- No groundwater flooding is recorded within 250 m.
- Watercourses are shown to intersect the site boundary.

About this data

There is no definitive national map of groundwater flood risk, so this screen draws on Environment Agency groundwater flood alert areas and records, distance to watercourses and British Geological Survey 1:625,000 geology. Specialist groundwater mapping can be obtained if needed.



Flood risk summary

OVERALL RESULT

HIGH

The published mapping shows significant flood risk on this site (3 of 7 sources rated high). We recommend expert advice before relying on this screening report.

Table 1 Flood risk screening results

Source	What the mapping shows	Rating
Rivers and the sea	Allowing for flood defences, most of the site is at risk of flooding from rivers or the sea, reaching high risk (more than a 3.3% chance each year).	HIGH
Rivers and the sea with climate change	Allowing for flood defences and climate change, the whole site is at risk of flooding from rivers or the sea, reaching high risk (more than a 3.3% chance each year).	HIGH
Surface water	A large part of the site is shown at risk of surface water flooding, rising to high risk in places.	MODERATE
Surface water with climate change	A large part of the site is shown at risk of surface water flooding under the climate change scenario, rising to high risk in places.	MODERATE
Reservoirs	The site is inside the reservoir flood extent for a dry day. Reservoir failure is very unlikely, so this is rated Moderate at most.	MODERATE
Historic flooding	The Environment Agency has a record of flooding on most of the site.	HIGH
Groundwater	No groundwater flooding risk is indicated.	LOW

How to read the ratings

- Low: the published mapping shows little or no risk on or next to the site.
- Moderate: some risk is mapped on part of the site or close by. Worth understanding before you commit.
- High: the site is mapped at significant risk. Expert advice is recommended.
- Ratings are Stormflow's screening judgement of the published national data, not a site specific assessment.

The following sections discuss the implications of this flood risk for planning and developing the site.



Planning and development

The pages so far describe the flood risk to the site. This part looks at what that risk means for developing it under national planning policy, starting with the Flood Map for Planning that planning authorities use.

Flood Map for Planning

Most of the site is in Flood Zone 3.

Flood Zones

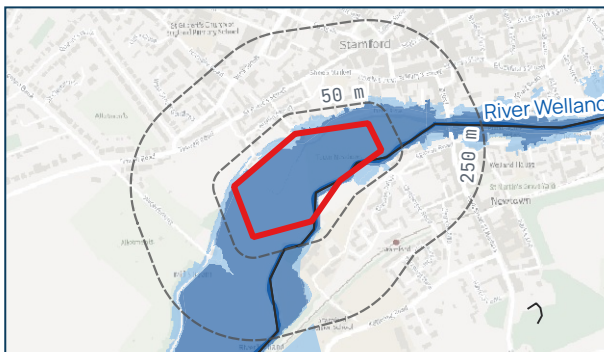


Figure 13 Flood Zones 2 and 3

KEY

 Site boundary

Flood Zones

 Flood Zone 3

 Flood Zone 2

 EA main river

 OS watercourse

- The rest of the site is in Flood Zone 2.
- Flood Zone 3 means a 1% or greater chance of river flooding each year, or 0.5% or greater from the sea, ignoring any flood defences.
- Flood Zone 3b, the functional floodplain, is not shown on the Flood Map for Planning. The next page gives an indication of where it could be.

Flood Zones plus climate change

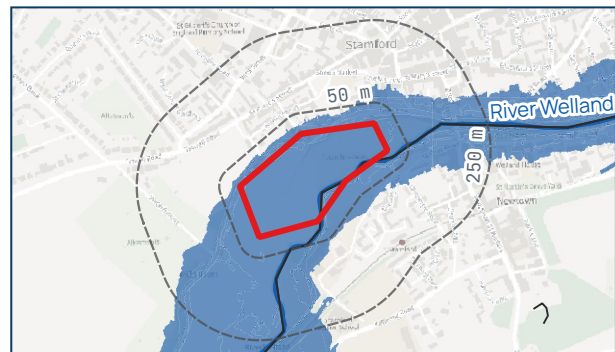


Figure 14 Future Flood Zone 3

KEY

 Site boundary

 Future Flood Zone 3

 EA main river

 OS watercourse

- The whole site is inside the future Flood Zone 3 extent once climate change is allowed for.
- This layer shows the area expected to fall within Flood Zone 3 over the 2070 to 2125 period, using central climate change allowances and ignoring defences.

About this data

Planning authorities use the Environment Agency Flood Map for Planning to decide whether a Flood Risk Assessment and the Sequential Test are needed. Flood Zones ignore flood defences. Source: National Planning Policy Framework (August 2026), Annex F, table 1.



The map shows the River Welland flowing through the area. The proposed flood defense scheme is indicated by a red line, which follows the riverbank and encloses the Town Meadows. The area protected by the scheme is shaded in blue. The map includes various streets and landmarks, such as St Gilbert's Church of England Primary School, St Martin's Graveyard, and the River Welland. A scale bar at the bottom left indicates distances of 0, 100, and 200 meters. A north arrow is located in the top right corner.

KEY

-  Site boundary
-  >3.3% chance each year, with defences
-  EA main river
-  OS watercourse
-  Search distance

Most of the site could be functional floodplain (Flood Zone 3b), so it may not be developable without hydraulic modelling and a challenge to the Flood Map.

- Planning Practice Guidance defines functional floodplain as land with a 3.3% or greater chance of flooding each year, with existing defences working. The map shows that chance from the Environment Agency national flood risk assessment.
- In Flood Zone 3b only water compatible uses and essential infrastructure are normally permitted.
- Most of the site is indicatively functional floodplain (Flood Zone 3b). Unless site specific hydraulic modelling shows the risk is lower, and the Flood Map is challenged with the Environment Agency, the site may not be developable for anything other than water compatible uses and essential infrastructure.
- This is indicative only. A Flood Risk Assessment and an Environment Agency data request are required to confirm it.

Flood Zone 3b is not published as a national map. This page is an indication only, taken from the NaFRA2 defended risk bands.



What this means for your site

FLOOD RISK ASSESSMENT

Required

The site is in Flood Zone 3 and is 1 hectare or more.

Functional floodplain

Most of the site is indicatively functional floodplain (Flood Zone 3b). Unless site specific hydraulic modelling shows the risk is lower, and the Flood Map is challenged with the Environment Agency, the site may not be developable for anything other than water compatible uses and essential infrastructure.

Why: the national triggers

NPPF policy F4 asks for a site specific Flood Risk Assessment in any of these cases:

Table 2 Flood Risk Assessment triggers

Trigger	What the mapping shows	Applies
Flood Zone 2 or 3	Flood Zone 3	YES
Flood Zone 1, site of 1 hectare or more	5.31 hectares	YES
Flood Zone 1, at risk from any source now or in the future	Mapped risk from surface water, surface water with climate change and rivers and the sea with climate change	YES
Flood Zone 1, in an Environment Agency critical drainage area	Not published nationally	Check with the council
Flood Zone 1, at risk in the council's Strategic Flood Risk Assessment	Not published nationally	Check with the council



Flood risk vulnerability

Table 3 shows what can be built where: find the type of development across the top and read down to the site's Flood Zone (Flood Zone 3 on the Flood Map for Planning). The Flood Map for Planning does not split Flood Zone 3 into 3a and 3b, so both rows apply until a Flood Risk Assessment confirms which. The vulnerability classes are explained below (Table 4).

Table 3 Flood risk vulnerability and Flood Zone compatibility (NPPF Annex F)

Flood Zone	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test	✓	✓	✓
Zone 3a	Exception Test	✗	Exception Test	✓	✓
Zone 3b	Exception Test	✗	✗	✗	✓

✓ appropriate. ✗ should not be permitted. Exception Test: permitted only if it passes the Exception Test. Shaded rows apply to this site.

National planning policy classifies every type of development by how vulnerable it, and the people using it, would be to flooding. There are five classes, from essential infrastructure to water compatible uses.

Table 4 Flood risk vulnerability classification (NPPF Annex F)

Vulnerability class	Examples
Essential infrastructure	Essential transport and utility infrastructure, solar farms, wind turbines, EV charging, data centres
Highly vulnerable	Basement dwellings, permanent residential caravans and park homes, emergency services needed during a flood
More vulnerable	Houses and flats, care homes, hospitals, schools and nurseries, hotels, pubs
Less vulnerable	Shops, offices, restaurants, industry, storage, agriculture, car parks
Water compatible	Flood control works, docks and marinas, amenity open space, outdoor sport



Sequential Test

The Sequential Test steers development to land at the lowest risk of flooding from any source. The mapping shows this site at risk from rivers and the sea, now (Flood Zone 3) and with climate change, and from surface water, so the test is likely to apply unless one of these exemptions is met (policy F5):

- The site is allocated in the local plan and was tested when the plan was prepared.
- A Flood Risk Assessment shows that no built development, access, escape route or land raising would be in an area at risk from any source, now and in the future.
- The only risk is surface water and the layout, design and mitigation keep people safe for the lifetime of the development without increasing flood risk elsewhere.
- Householder development, non residential extensions under 250 square metres, and most changes of use (not to caravan, camping, chalet or park home sites).

Exception Test

Where Table 3 says it is required, the development must also show that it would (policy F6): provide wider sustainability benefits to the community that outweigh the flood risk; be safe for its lifetime; and not increase flood risk elsewhere, reducing it overall where possible. In Flood Zone 3 it is needed for homes and other more vulnerable uses, and for essential infrastructure. Highly vulnerable uses should be refused.

Source: National Planning Policy Framework (August 2026), policies F4 to F7 and Annex F. This is a screening view; the planning authority decides how the tests apply.

Where to place buildings

Flood Zones 2 and 3 cover the whole site and medium or high surface water risk covers a small part of the site, so there is no part of the site outside the Flood Zones to place buildings in. The Flood Risk Assessment will need to show how floor levels, safe access and escape, and flood resilient design keep people safe without increasing flood risk elsewhere.

Watercourse through the site

Mill Stream runs through the site. Plan the layout around it: keep buildings and access clear of the channel and banks, allow for an undeveloped strip beside it, and expect to need Lead Local Flood Authority consent for any crossing, culvert or outfall. The Flood Risk Assessment should look at flooding from it, as national mapping may not show it.

Required deliverables

Budget for a Flood Risk Assessment and a topographic survey at planning stage. Because the site is in Flood Zone 3, Environment Agency flood data will need to be requested for the Flood Risk Assessment, which can take up to 20 working days. In rare cases additional modelling may be needed.



How Stormflow can help

- We can provide a Flood Risk Assessment for the planning application.
- We can provide a drainage strategy report in accordance with the National Standards for Sustainable Drainage Systems (SuDS).

If you instruct Stormflow for flood risk work on this site within 30 days of the report date, we will deduct the cost of this report from our fee.

Quote reference FC261001TOWNME when you contact us on 07869 044666 or info@stormflow.co.uk.



Data sources and limitations

Data used

- Flood Map for Planning, Flood Zones 2 and 3 and Flood Zones plus climate change. Environment Agency.
- Risk of Flooding from Rivers and Sea (including the defended and undefended flood risk extents), and Risk of Flooding from Surface Water, including climate change scenarios and depth bands, from the national flood risk assessment (NaFRA2). Environment Agency.
- Reservoir Flood Extents, dry day and wet day. Environment Agency.
- Recorded Flood Outlines, Statutory Main River Map, Spatial Flood Defences, Flood Alert Areas and Water Framework Directive river waterbody catchments. Environment Agency.
- Geology 625k bedrock and superficial deposits. British Geological Survey.
- OS Open Zoomstack watercourses and names, and OS Maps base mapping. Ordnance Survey.
- Local authority boundaries. Office for National Statistics.
- National Planning Policy Framework, August 2026. Ministry of Housing, Communities and Local Government.

Limitations

This report is a desk based screening of national datasets published at the date shown. National flood maps are indicative and are not intended to show whether an individual property will flood. They do not account for ground or floor levels, local drainage, blockages or the condition of defences, and they may change when new data is published. This report is not a site specific Flood Risk Assessment or a conveyancing search, and it should not be relied on as one. Stormflow Solutions Ltd accepts no liability for errors or omissions in third party data. The report reflects the data on the date shown; we recommend a new report if it is more than 12 months old.

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