

FLOOD RISK ASSESSMENT

Update – May 2026

(Supersedes RM Associates FRA dated October 2023, Version 1)

Proposed Full Planning Application for the Conversion of an Existing Agricultural Building to a Single Dwelling

(Class Q Fallback / Betterment)

Barn at land off Cade Drove,
Gedney Broadgate,
PE12 0DG

Prepared on behalf of:

Mr W S Fletcher t/as Fletcher Salads


Extant Class Q Approval: H06-0868-23

National Grid Reference: TF 40053 21549

May 2026 – Version 2

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1. Introduction

This Flood Risk Assessment (FRA) has been prepared on behalf of Mr W S Fletcher t/as Fletcher Salads in support of a forthcoming full planning application for the conversion of an existing agricultural building at land off Cade Drove, Gedney Broadgate, into a single residential dwelling (Use Class C3).

The application is advanced on a fallback / betterment basis associated with the extant Class Q Prior Approval granted under application reference H06-0868-23 (decision dated 27 November 2023) for the conversion of the same building into two dwellings. The forthcoming full planning application has been the subject of pre-application advice under reference HPE-0377-26 (South Holland District Council, letter dated 18 May 2026), in which officers confirmed that:

"...the fallback establishes the realistic prospect of residential occupation occurring within the existing building envelope [...] officers consider it likely that a future application would principally turn on comparative flood risk and resilience considerations between the approved fallback and the proposed scheme."

This Flood Risk Assessment has accordingly been prepared as an updated, site-specific document that:

- supersedes the FRA dated October 2023 (Version 1) prepared by RM Associates, which accompanied the original Class Q application H06-0868-23;
- reflects the change in proposal from two dwellings to one dwelling;
- addresses the current version of the National Planning Policy Framework (December 2024) and the Flood Risk and Coastal Change Planning Practice Guidance, including the amendments published in 2025;
- incorporates the outputs of the Environment Agency's updated Flood Map for Planning (March 2025 and August 2025 releases), which integrate the National Flood Risk Assessment 2 (NaFRA2) and present climate-change-adjusted flood zones;
- provides a comparative assessment of flood risk between the extant Class Q fallback scheme and the proposed single-dwelling scheme; and
- specifies updated finished floor levels, resilience measures, drainage proposals and a flood warning / evacuation strategy proportionate to the residual risk identified.

This document is prepared solely as a flood risk assessment and drainage statement on behalf of the client, Mr W S Fletcher (Fletcher Salads), to accompany a planning application to South Holland District Council. The conclusions are based upon information available at the time of writing. This report contains public sector information licensed under the Open Government Licence v3.0.

2. Purpose of this Update

The pre-application response (HPE-0377-26) confirmed at section "Flood Risk and Drainage" that the existing FRA accompanying the extant Class Q approval would need to be updated to inform any subsequent full planning application. Specifically, officers stated:

"At this stage, officers do not identify any fundamental in-principle flood risk objection to the proposal, subject to the submission of an appropriately detailed site-specific Flood Risk Assessment and appropriate flood mitigation/resilience measures."

This update has therefore been prepared to ensure that the FRA submitted with the forthcoming full planning application:

- is site-specific and proportionate to the scale and nature of the proposed single-dwelling conversion;
- provides a current evidential basis using the latest publicly available Environment Agency mapping and climate change allowances;
- demonstrates how the proposal manages residual flood risk over the lifetime of the development (taken as 100 years from first occupation for residential use); and
- addresses the comparative position with the extant fallback scheme, which officers have identified as the principal axis along which the application is likely to be determined.

3. Application Site

The application site comprises land off Cade Drove, Gedney Broadgate, postcode PE12 0DG. The site falls within the administrative area of South Holland District Council and within the catchment of the South Holland Internal Drainage Board. The National Grid Reference for the centre of the existing barn is TF 40053 21549.

The site lies within the open countryside, approximately 2 kilometres to the south-west of Long Sutton, outside any defined settlement boundary as identified in the South East Lincolnshire Local Plan (adopted March 2019). The wider area is characterised by flat, low-lying, intensively cultivated fenland with sparse residential and agricultural built form.

The application building is a single-span steel-portal-framed agricultural barn with brick and metal-sheet cladding. The structure benefits from the extant Class Q Prior Approval H06-0868-23 (granted 27 November 2023) for conversion into two dwellings, and from related approval H06-0944-24 (granted 7 January 2025) which approved the change of use of associated land to residential curtilage, parking and access.

Site levels

The topographical survey prepared by Shire Surveys (Drawing 2157-001, dated November 2022, accompanying the original Class Q submission) records:

- average existing external ground level around the barn of approximately 2.90mODN;
- existing internal slab finished floor level of 3.20mODN; and
- Cade Drove carriageway level immediately adjacent to the proposed access of approximately 3.05mODN.

The site is generally flat and rectangular and falls gently away from the road towards the south-east. There is no significant topographic relief on or immediately adjacent to the site.

4. Planning Background and Fallback Position

The site has a detailed planning history that is directly relevant to the flood risk assessment. The most material decisions are summarised below.

Reference	Description	Decision
H06-0286-23	Conversion of agricultural building into residential dwelling including removal of cold store and static caravans	Approved 23.05.2023
H06-0868-23	Prior approval under Class Q of Part 3, Schedule 2 of the Town and Country Planning (General Permitted Development) (England) Order 2015 for	Approved 27.11.2023

Reference	Description	Decision
	change of use of agricultural building to two 'larger' dwellinghouses (C3) – the extant fallback scheme	
H06-0289-24	Demolition of agricultural building and erection of two dwellings (full planning, Class Q fallback)	Refused
H06-0944-24	Change of use of agricultural land to gardens, driveways and vehicular parking associated with the approved Class Q conversion under H06-0868-23	Approved 07.01.2025

The extant Class Q fallback

The extant Class Q Prior Approval H06-0868-23 authorises the conversion of the existing agricultural building into two dwellings. The accompanying drawings (Brown & Co / JHWalter ref. AP43259-1-PW-04) confirm that the approved scheme:

- retains the existing steel portal frame and the broad envelope of the agricultural building;
- creates two two-storey dwellings (Plot 1 of 223.2 m² and Plot 2 of 221.0 m² – combined floor area 444.2 m², below the 465 m² Class Q ceiling);
- sets the proposed finished floor level at 3.35mODN (150mm above the 3.20mODN recommended in the 2023 FRA); and
- incorporates flood resilient construction in accordance with "Improving the Flood Performance of New Buildings – Flood Resilient Construction" (DCLG, 2007).

The approval is capable of implementation and remains extant. Officers have confirmed in the pre-application response that the fallback represents "a realistic prospect of implementation" and accordingly attracts material weight in the planning balance, including in the assessment of flood risk.

As authority for this approach, reference is made to *Mansell v Tonbridge and Malling BC* [2017] EWCA Civ 1314, in which the Court of Appeal confirmed that, where a fallback is more than merely theoretical, it may constitute a material consideration capable of being given substantial weight. The pre-application response (HPE-0377-26) accepts that this test is satisfied in the present case.

5. Description of the Proposed Development

The proposed development comprises the conversion of the existing agricultural barn into a single residential dwelling (Use Class C3), to be undertaken within the established building envelope authorised by the extant Class Q approval H06-0868-23. The principal characteristics of the proposal as they bear upon flood risk are as follows:

- a single dwelling, reduced from two dwellings under the Class Q fallback, with a corresponding reduction in the number of occupants exposed to residual flood risk;
- retention of the existing steel portal frame and existing concrete slab, with selective repair and replacement of brick and sheet-clad walling;
- retention of the overall footprint, ridge height, eaves height and form of the existing agricultural building, so that there is no material increase in built footprint within Flood Zone 3 compared with the fallback;
- a proposed minimum finished floor level of 3.35mODN (450mm above existing external ground level of 2.90mODN), consistent with the level approved under the Class Q drawings and providing freeboard above the modelled 2115 0.1% AEP tidal breach event;
- flood resilient construction in accordance with the latest CIRIA and DLUHC guidance on flood-resilient new-build and conversion; and
- use of the existing access onto Cade Drove, with parking, curtilage and drainage arrangements established by approval H06-0944-24.

6. Policy and Guidance Framework

This Flood Risk Assessment has been prepared with reference to the following national, regional and local policy and guidance:

National policy and guidance

- National Planning Policy Framework (December 2024 revision), in particular paragraphs 173 to 182 ("Planning and flood risk");
- Planning Practice Guidance: Flood Risk and Coastal Change (latest amendments published September 2025), including the clarified Sequential Test exemptions at PPG paragraph 027a;
- Environment Agency "Flood risk assessments: climate change allowances" guidance (most recent peak rainfall update September 2025; peak river flow and sea level rise allowances reflecting UKCP18 RCP 8.5 high-emission projections);
- Environment Agency Flood Map for Planning (refreshed March 2025 with NaFRA2 inputs; further refined August 2025 to introduce a single "Flood Zones plus climate change" layer);
- Mead Realisations Ltd v Secretary of State [2025] EWCA Civ 32, in which the Court of Appeal confirmed that the NPPF and PPG carry equivalent weight in planning decision-making in this area;

- "Improving the Flood Performance of New Buildings – Flood Resilient Construction" (DCLG, 2007) and the updated CIRIA C790 "Code of Practice for property flood resilience" (2024).

Development plan and local guidance

- South East Lincolnshire Local Plan (adopted March 2019), in particular Policies 2 (Development Management), 4 (Approach to Flood Risk) and 30 (Pollution);
- South East Lincolnshire Strategic Flood Risk Assessment (SFRA), including the Standard Advice Matrix;
- South Holland Internal Drainage Board byelaws and consenting requirements.

It is acknowledged that the NPPF (December 2024) introduced a strengthened sequential approach at paragraph 175 (see Section 12 of this report) and that the PPG amendments published in 2025 require the Sequential Test to consider all sources of flood risk, including surface water. Both points are addressed in this updated FRA.

7. Sources of Flood Risk

The Environment Agency Flood Map for Planning (refreshed in March 2025 to incorporate NaFRA2 modelling, and further refined in August 2025) confirms that the site lies within Flood Zone 3 (high probability) on an undefended basis. The Flood Map for Planning is produced on an undefended basis and therefore shows the extent of land that would flood if all defences were assumed to fail.

Drawing on the Flood Map for Planning, the Risk of Flooding from Rivers and Sea (RoFRS) layer, the South East Lincolnshire SFRA and the NaFRA2 long-term flood risk service, the following sources of flood risk have been identified and assessed in respect of the site:

Source	Assessment
Tidal – The Wash / River Nene tidal extents	Principal source of risk. Site lies within the undefended tidal Flood Zone 3 of the Wash and River Nene tidal floodplain. Risk is materially reduced by maintained earth embankment defences (see Section 8). Defended NaFRA2 outputs categorise the site as Low risk (between 0.1% and 1% chance in any year).
Fluvial – Main rivers	The site is not at risk of flooding from any designated main river. There are no main rivers in immediate proximity to the site.
Fluvial – Ordinary watercourses / IDB drains	South Holland IDB maintained drain DRN199G2802 (Drain H28, lowland drain) runs along the front boundary of the site. The site falls within IDB catchment area H (Free Discharge). IDB consent will be required for any works within 9 m of the drain or for any new discharge.
Surface water (pluvial)	The latest EA Risk of Flooding from Surface Water (RoFSW) mapping, refreshed under NaFRA2 in 2025, shows that the footprint of the existing barn lies outside any modelled surface water flow path at the 0.1% (1 in 1000) annual chance event. Limited areas of surface water ponding are modelled in adjacent field drainage channels and along Bullock's Short Gate.
Groundwater	The site is underlain by alluvial fenland deposits over Amphthill Clay. There is no recorded history of groundwater emergence at the site and BGS records indicate no significant chalk or principal aquifer beneath. Groundwater flooding risk is considered low.
Sewers and artificial sources	There are no public foul or surface water sewers in the immediate vicinity of the site. The site does not fall within the reservoir flood inundation map of any large raised reservoir maintained under the Reservoirs Act 1975. Risk from artificial sources is considered negligible.

In accordance with the NPPF (December 2024) paragraph 173 and PPG paragraph 027a, this assessment considers all of the above sources of flood risk both at present and over the lifetime of the proposed residential development (assumed to be 100 years from anticipated first occupation in

2027, i.e. to 2127). The dominant source of risk both at present and across the 100-year design life remains tidal breach of the Wash / River Nene defences.

8. Tidal Flood Risk and Breach Analysis

Tidal defences

The site is protected from tidal flooding by the Environment Agency-maintained tidal defences along the southern shore of The Wash and the tidal River Nene. The defences in this reach consist of earth embankments, in some cases supplemented by inter-tidal saltmarsh providing wave-energy dissipation. They are inspected routinely by the Environment Agency. The defences are reported to reduce the risk of flooding at the line of the defence to a 0.67% (1 in 150) annual chance event.

There are no current capital projects identified in the relevant Shoreline Management Plan or Flood and Coastal Risk Management programme that would alter the standard of protection at this site within the design life of the development.

Extreme tide levels

Extreme tide level data has been taken from the Environment Agency's 2018 Coastal Flood Boundary [CFB] Dataset for the East Coast and Wash (Immingham to the West Lighthouse). The closest CFB node to the site is West Lighthouse (CFB ref 4008; easting 550094, northing 329971). Selected still-water peak tide levels at the 50% confidence bound are reproduced below.

Annual chance (1 in X)	Still water peak tide level (mODN) – Present day (base 2017)	With sea-level rise to 2125 (Anglian Higher Central, +1.20m)
1 in 100 (1.0%)	5.68	6.88
1 in 200 (0.5%)	5.82	7.02
1 in 1000 (0.1%)	6.14	7.34

These are still-water levels at the line of the defence and do not represent the depth of water that would reach the application site, which lies inland of the defences across an extensive area of low-lying floodplain. The relevant assessment for the site is therefore the modelled consequence of a defence breach (see below).

Tidal breach hazard mapping

The Environment Agency has produced Tidal Breaching Hazard Mapping for the Lincolnshire and Northamptonshire coast, with map centred on TF 40058 21544 (CCN-2022-282185). The mapping considers simulated breaches at modelled breach locations along the defence line and presents the hazard rating, maximum depth and maximum velocity arising at receptor sites following a breach.

For the 2115 scenario and the 0.1% (1 in 1000) annual chance event – which represents the upper-bound design event for residential development in Flood Zone 3a – the mapping records at the application site:

Parameter	Value at the application site (2115, 0.1% AEP)
Maximum hazard rating	Less than 0.75 – "Low Hazard" (Caution – Flood Zone with shallow flowing water or deep standing water)
Maximum depth	0.00 – 0.25 m above ground
Maximum velocity	0.0 – 0.3 m/s

Applying the hazard rating formula from Defra/EA R&D Technical Report FD2320 (and the more recent restated guidance for new development), the hazard rating at the site is:

$$HR = d \times (v + 0.5) + DF = 0.25 \times (0.3 + 0.5) + 0.5 = 0.70 \rightarrow \text{classified as "Low Hazard"}.$$

The site therefore falls within Cell F8 of the South East Lincolnshire Strategic Flood Risk Assessment Standard Advice Matrix, the same category as identified in the 2023 FRA. For "More Vulnerable" residential development in Cell F8, the SFRA / Environment Agency advice requires that:

"The NPPF requires that the proposal is accompanied by a Flood Risk Assessment which contains evidence that appropriate mitigation measures / flood resilience techniques have been incorporated into the development."

This requirement is addressed in Sections 10 and 15 of this report.

It is also noted that the modelled overtopping mapping confirms the site is not affected by overtopping of the defences in either the 2006 or 2115 scenarios. The dominant residual risk at the site is therefore breach, rather than overtopping.

9. Surface Water, Groundwater, Sewer and Reservoir Flood Risk

Surface water

The Environment Agency Risk of Flooding from Surface Water (RoFSW) mapping, refreshed under NaFRA2 in 2025, shows that the building footprint lies outside the modelled surface water flood extent at the 0.1% (1 in 1000) annual chance scenario. The site sits on broadly level ground with no upstream catchment of any meaningful size that would direct overland flow towards the building.

Limited shallow surface water accumulation is modelled along Bullock's Short Gate and in the adjacent agricultural land, generally less than 0.15 m in depth at the 1 in 1000 year event. The proposed FFL of 3.35mODN provides 0.45 m of freeboard above existing external ground level and accordingly exceeds the modelled surface water depths at all annual chance scenarios.

The PPG (as amended in 2025) requires the Sequential Test to consider surface water in addition to fluvial and tidal risk. The site-specific position is that the built form of the proposed dwelling lies outside the modelled surface water flood envelope at all annual chance scenarios, and that the proposed FFL provides additional freeboard. This is addressed in the Sequential Test discussion at Section 12.

Groundwater

The site is underlain by Holocene tidal flat deposits (silt and clay) overlying the Ampthill Clay Formation. The British Geological Survey records no significant principal aquifer beneath the site. There is no documented history of groundwater emergence in this part of the parish. Groundwater flooding risk is assessed as low.

Sewers and artificial sources

There are no public foul or surface water sewers in the vicinity of the site. Foul drainage at the existing barn is to be served by a private package treatment plant (see Section 14). There are no large raised reservoirs upstream of the site as identified in the Environment Agency Reservoir Flood Map. Risk from artificial sources is negligible.

Internal Drainage Board considerations

The site lies within catchment area H (Free Discharge) of the South Holland Internal Drainage Board, with the Board's maintained drain DRN199G2802 (Drain H28, lowland drain) running along the front boundary of the site. The IDB will require prior written consent for:

- any new building, structure or planting within 9 m of the landward toe of the bank of the drain;
- any new or altered discharge to the drain (which will be required for surface water and treated effluent from the package treatment plant); and
- any new culvert or alteration to existing culverts.

Pre-submission contact with the IDB will be undertaken in line with the pre-application advice (HPE-0377-26). It is noted that the Board approved equivalent arrangements at the site as part of the Class

Q approval and the subsequent change-of-use approval H06-0944-24, and there are no anticipated in-principle constraints to a single-dwelling discharge.

10. Finished Floor Levels

The South East Lincolnshire SFRA Standard Advice Matrix, for sites in Cell F8 (More Vulnerable use, Low Hazard within Flood Zone 3a), requires that:

- two-storey properties: finished floor levels are set a minimum of 300 mm above existing ground level; and
- single-storey properties: finished floor levels are set above the 0.1% AEP breach depth in the 2115 scenario.

The proposed dwelling is a two-storey conversion within the existing barn envelope. Adopting a precautionary approach, the proposed finished floor level for the converted dwelling is set at:

Minimum FFL = 3.35mODN (450 mm above existing external ground level of 2.90mODN; 150 mm above the existing internal slab of 3.20mODN)

This level matches that approved by the Class Q drawings for the fallback two-dwelling scheme and accordingly secures equivalent flood resilience for the single-dwelling proposal. The level provides:

- 450 mm freeboard above existing external ground level (2.90mODN), which exceeds the SFRA minimum standard of 300 mm by 50%;
- freeboard above the maximum modelled tidal breach depth at the site in the 2115 0.1% AEP scenario (0.25 m above ground, i.e. up to 3.15mODN); and
- freeboard above the maximum modelled surface water depth at the site in the 1 in 1000 year event (less than 0.15 m above ground).

All habitable rooms will be located at or above this datum. There are no proposed habitable rooms below 3.35mODN. Electrical sockets, consumer units, boiler units and other vulnerable electrical and mechanical services will be installed at least 500 mm above this datum (i.e. at 3.85mODN or higher) to minimise damage and reinstatement times should the residual breach event occur.

11. Climate Change Allowances

Climate change allowances applied in this Flood Risk Assessment have been taken from the most recent Environment Agency "Flood risk assessments: climate change allowances" guidance, the latest publicly available release of which (covering peak rainfall by management catchment) was updated on 12 September 2025. The allowances are based on UKCP18 high-emission projections (RCP 8.5), consistent with the Court of Appeal direction in *Mead Realisations Ltd v SSHCLG* [2025] EWCA Civ 32 that the PPG carries equivalent weight to the NPPF in this regard.

Peak river flow allowances – Anglian / Nene Management Catchment

The site lies within the Nene Management Catchment of the Anglian River Basin District. For More Vulnerable land uses in Flood Zone 3a, the central allowance is applied as the primary design value and the higher central is applied as a sensitivity check.

Allowance	2020s (2015–2039)	2050s (2040–2069)	2080s (2070–2125)
Central	–2%	–7%	+4%
Higher central	+4%	0%	+13%
Upper end	+18%	+17%	+36%

Peak river flow is not a controlling parameter for the site because it is not at risk from any main river. The allowances are reported here for completeness and as a sensitivity check on small ordinary watercourse / IDB drain conveyance.

Peak rainfall intensity

Peak rainfall allowances (used to inform surface water and SuDS design) are taken from the Environment Agency's management-catchment-specific dataset (last updated 12 September 2025). For the Nene catchment, the published allowances for the 1% AEP rainfall event are:

- Central allowance, 2050s (2040–2059): approximately +25%
- Central allowance, 2070s (2060–2080): approximately +35%
- Upper end, 2070s: approximately +55%

These allowances have been incorporated into the drainage strategy (Section 14).

Sea level rise – Anglian region

Sea level rise allowances for the Anglian region are reproduced below. The Higher Central allowance is applied as the primary design value, consistent with the Environment Agency's standard advice for More Vulnerable development.

Allowance	2000–2035	2036–2065	2066–2095	Cumulative to 2125
Higher Central (mm/yr)	5.8 (203mm)	8.7 (261mm)	11.6 (348mm)	1.20 m
Upper End (mm/yr)	7.0 (245mm)	11.3 (339mm)	15.8 (474mm)	1.60 m

Applying the Higher Central allowance to the present-day 1 in 1000 year peak tide level at the West Lighthouse CFB node (6.14mODN) gives a 2125 peak tide level of approximately 7.34mODN. This is the design event used for the tidal breach hazard mapping reproduced at Section 8.

Even under the Upper End allowance (cumulative +1.60 m to 2125), the proposed development would remain in the same SFRA Standard Advice Matrix cell (F8 – Low Hazard) by virtue of the modelled breach attenuation across the intervening floodplain, and the proposed FFL of 3.35mODN would continue to provide freeboard above the modelled inundation depth at the building.

12. Sequential and Exception Tests

Vulnerability classification

Applying the Flood Risk Vulnerability Classification at Table 2 of the PPG, the proposed dwelling is classified as More Vulnerable. The compatibility table at Table 3 of the PPG confirms that More Vulnerable development is permitted in Flood Zone 3a subject to the application of the Sequential Test and, where required, the Exception Test.

Sequential Test

PPG paragraph 027a (as amended in 2025) sets out that the Sequential Test should be applied to development in areas at risk of flooding from any source. NPPF paragraph 175 (December 2024 revision) provides, however, that the Sequential Test does not need to be applied where a site-specific Flood Risk Assessment demonstrates clearly that all parts of the proposed development, including the access, are located outside areas at risk of flooding. That exemption is not directly engaged in the present case because the building lies within Flood Zone 3 on an undefended basis.

The Sequential Test position is nevertheless straightforward in this case for two distinct reasons:

- **Change of use exemption** – the proposed development is a change of use of an existing building. PPG paragraph 168 confirms that the Sequential and Exception Tests do not apply to a change of use, save for changes of use to caravan, camping or chalet sites. The proposed change of use of the agricultural building to a single Class C3 dwellinghouse is accordingly exempt from the Sequential and Exception Tests by virtue of PPG paragraph 168.
- **Fallback position** – in any event, the existence of the extant Class Q approval H06-0868-23 for two dwellings within the same building envelope means that the principle of residential occupation of the site has already been established and that there is no "reasonably available alternative site" at lower flood risk to which the proposed development could be relocated. The proposal seeks to reduce, not increase, the level of residential exposure at the site. South Holland District Council's pre-application response (HPE-0377-26) acknowledges that the fallback constitutes a realistic prospect of implementation.

Accordingly, in line with both PPG paragraph 168 and the policy direction at NPPF paragraph 174, the Sequential Test is not engaged in respect of the proposal.

Exception Test

As change of use, the Exception Test is similarly not engaged (PPG paragraph 168). For completeness, however, both limbs of the Exception Test could be addressed by the proposal if required:

- **Wider sustainability benefits** – the proposal supports the sustainable reuse and improvement of an existing rural building consistent with Policy 23 of the South East Lincolnshire Local Plan, delivers a reduction in the number of dwellings (from two to one) within Flood Zone 3, retains agricultural character and enables enhanced biodiversity net gain (which the Class Q fallback does not engage).

- **Safe for the lifetime of the development** – as set out in Sections 8, 10 and 15 of this report, the development can be made safe from flooding for its lifetime through a combination of finished floor level setting, resilient construction, signed-up flood warning service and a documented Flood Evacuation Plan. The maximum modelled depth at the building in the 2115 0.1% AEP scenario is 0.25 m above existing ground, with velocities of 0.0–0.3 m/s and a Low Hazard classification.

13. Comparative Flood Risk Assessment – Fallback vs Proposal

The pre-application response (HPE-0377-26) at section "Flood Risk and Drainage" identifies that a future planning application is likely to turn principally on the comparative flood risk and resilience position between the extant Class Q fallback and the proposed single-dwelling scheme. This section addresses that comparison directly.

Flood risk parameter	Extant Class Q fallback (H06-0868-23) – 2 dwellings	Proposed scheme – 1 dwelling
Number of dwellings within Flood Zone 3	2	1 – a 50% reduction in residential units exposed
Indicative occupancy exposed	Up to ~8 persons (2 × 4-bed dwellings)	Up to ~5 persons (1 × 4-bed dwelling) – approx. 35–40% reduction in persons exposed
Footprint within Flood Zone 3	Existing barn footprint, retained	Existing barn footprint, retained – no increase
Finished floor level	3.35 mODN (per AP43259-1-PW-04)	3.35 mODN (matched – no reduction in resilience)
Floor area of habitable accommodation	444.2 m ² combined (Plot 1: 223.2 m ² ; Plot 2: 221.0 m ²)	Approximately 400 m ² (single dwelling) – reduction relative to fallback
Sequential & Exception Tests	Not required – permitted development	Not required – change of use (PPG paragraph 168)
Biodiversity Net Gain (Environment Act 2021)	Not engaged – permitted development	Mandatory minimum 10% BNG, providing opportunity to deliver wetland / drainage features that also benefit flood storage
Surface water / SuDS standards	Limited – Class Q does not engage non-statutory SuDS guidance	Full-planning SuDS approach (Section 14) including permeable surfaces, water butt and infiltration parking – fully consented through LLFA / IDB
Flood resilient construction	Specified to DCLG (2007) standard	Specified to updated CIRIA C790 (2024) standard with full property-flood-resilience suite
Flood Evacuation Plan	Not formally required	Provided (Section 16) – single household much easier to manage in a warning scenario than two separate households
Vehicle movements / impermeable curtilage	Two households	One household – reduced impermeable curtilage and

Flood risk parameter	Extant Class Q fallback (H06-0868-23) – 2 dwellings	Proposed scheme – 1 dwelling
		surface water generation potential

In summary, the comparative assessment demonstrates that:

- the proposal reduces the number of dwellings exposed to flood risk by 50% and the indicative population exposed by approximately 35–40%;
- the proposal maintains, and does not erode, the finished-floor-level resilience secured by the Class Q approval;
- the proposal introduces a mandatory Biodiversity Net Gain requirement (not engaged by the Class Q fallback) which can be designed to deliver complementary water-management benefits;
- the proposal will be controlled by a full SuDS strategy through the LLFA / IDB consenting route, which the Class Q fallback was not; and
- the proposal will be supported by a documented Flood Evacuation Plan (Section 16) which the Class Q fallback was not required to provide.

On any sensible reading, the proposed single-dwelling scheme represents demonstrable betterment over the extant Class Q fallback position when assessed against the matters identified by the Local Planning Authority at section "Flood Risk and Drainage" of the pre-application response HPE-0377-26.

14. Drainage Strategy

The drainage strategy reflects the position that the proposal is a conversion of an existing building, with the existing slab and existing roof drainage points retained. The strategy is materially more robust than that approved under the Class Q fallback, in that it engages the full SuDS hierarchy and is subject to LLFA / IDB consenting.

Surface water drainage

- Roof drainage: rainwater from the converted roof will be collected at existing outlets (cleaned, replaced as necessary, and upsized where needed to meet current Building Regulations Part H) and routed to one or more water butts of at least 220 litre capacity (in line with the recommendation in the 2023 FRA), with overflow to a soakaway / infiltration feature designed in accordance with BRE Digest 365 where ground conditions permit.
- Curtilage: driveway, parking and footpath surfaces within the residential curtilage approved under H06-0944-24 will be constructed in permeable materials, with sub-base voids sized for the 1 in 100 year rainfall event plus the 2070s climate change uplift of +35% (central) for the Nene management catchment.
- Discharge: if infiltration testing demonstrates that ground conditions are unsuitable, surface water will discharge at an attenuated rate to the South Holland IDB-maintained drain DRN199G2802 (Drain H28) along the front boundary, subject to the IDB's prior written consent. Discharge will be limited to greenfield Qbar.
- Urban creep: a 10% urban creep allowance has been incorporated into the SuDS sizing in line with the standard LLFA requirement.

Foul water drainage

A private gravity foul drainage system will discharge to a package treatment plant designed in accordance with Building Regulations Document H and British Water sizing guidance. Treated effluent will discharge to the IDB drain subject to the Board's prior written consent. There are no public sewers in the vicinity of the site.

Reducing the proposal from two dwellings to one reduces the foul flow generated by 50% relative to the fallback and therefore reduces the loading on the package treatment plant and on the receiving drain.

15. Flood Resilient and Resistant Construction

Two distinct categories of measure are addressed below:

- Flood resistance ("dry-proofing") – measures intended to prevent or delay the ingress of floodwater into the building.
- Flood resilience ("wet-proofing") – measures intended to limit the damage and reduce the reinstatement time should floodwater enter the building.

Given that the proposed FFL of 3.35mODN provides freeboard above the modelled tidal breach depth, the dwelling is unlikely to be inundated in the design event. The flood resilience suite is provided as a secondary line of defence for the residual risk scenario.

Flood resistance measures

- All external doors below 3.85mODN will be fitted with demountable / automatic flood barriers tested to BS 851188 (Part 1 or 2) for at least 0.6 m head.
- Airbricks within 600 mm of finished floor level will be replaced with automatic self-sealing airbricks.
- All service entries (electricity, water, telecoms, foul drainage) will be sealed with closed-cell expanding foam or proprietary flood seal collars where they pass through the external envelope below 0.6 m above FFL.
- Non-return valves will be fitted to foul and surface water connections to prevent back-flow.

Flood resilience measures

- Ground floor slab to be solid concrete with no voids beneath and no low-level wall vents.
- Closed-cell rigid insulation (e.g. PIR / phenolic foam) to be used for ground floor walls and floor (avoiding mineral fibre, which retains moisture).
- Sockets, consumer unit, distribution board, boiler unit, meters (water, electricity, gas where applicable) and ancillary devices to be located a minimum of 500 mm above FFL (i.e. at 3.85mODN or higher).
- Electrical ring main wiring to be installed at high level with drops to sockets, allowing post-flood drying without rewiring the entire ground floor.
- Kitchen units below 600 mm above FFL to be of moisture-tolerant carcass material (e.g. marine-grade plywood or solid timber) with stainless steel fixings.
- Skirtings, internal doors and architraves below 600 mm above FFL to be of moisture-tolerant material (e.g. solid timber, MMC composite); plasterboard to be horizontal lift type to allow replacement of lower sections only.
- Floor finishes at ground floor to be tile, stone or treated timber – avoiding fitted carpets that would require full replacement after a flood.

These measures align with CIRIA C790 "Code of Practice for property flood resilience" (2024) and exceed the resilience suite specified under the 2007 DCLG document that informed the 2023 FRA.

16. Flood Warning, Safe Access and Evacuation

Flood Warning

The site falls within the area covered by the Environment Agency's Flood Warning Service for The Wash and the tidal River Nene. The future occupier(s) of the dwelling will be required (by way of a planning condition or informative) to register with the Environment Agency Floodline service on 0345 988 1188 to receive flood warnings by telephone, mobile, email or SMS. Severe Flood Warnings are typically issued by the Environment Agency approximately two hours before existing defences are predicted to be overtopped or breached.

Safe access and egress

Vehicular access to and egress from the site is taken from Cade Drove, which is set at approximately 3.05mODN at the access point – approximately 150 mm above existing site ground level. In a tidal breach event:

- the carriageway of Cade Drove is anticipated to be passable on foot for a period before the building itself would be reached by floodwater, given the modelled velocity of 0.0–0.3 m/s and depths of less than 0.25 m;
- safe pedestrian egress to higher ground (north towards Long Sutton at approximately 4–5 mODN) is available along Cade Drove and the B1359 within the 2-hour warning period; and
- vehicular egress is achievable in the early stages of any warning event before water depths and velocities make road travel unsafe.

It is acknowledged that, consistent with the area's overall low-lying character, the wider road network would ultimately be inundated in the modelled design event. The site-specific hazard rating of Low Hazard, combined with two-hour advance warning, provides a safe outcome for occupants for the purposes of the Exception Test "safety" limb (if it were engaged).

Flood Evacuation Plan

A Flood Evacuation Plan will be prepared and provided to the occupier on first occupation, secured by planning condition if necessary. The Plan will, as a minimum:

- identify a designated safe refuge at first floor level within the dwelling (FFL +1 storey, i.e. approximately 6.0mODN);
- require registration with the EA Floodline Warning Direct service on or before first occupation;
- set out trigger thresholds for action (information, warning, severe warning) and the corresponding actions for the occupier (move possessions to first floor, deploy flood barriers, isolate utilities at first-floor cut-offs, evacuate to higher ground);
- identify the safe evacuation route(s) to higher ground (north along Cade Drove to the B1359 and Long Sutton);
- identify a designated rest centre as confirmed by Lincolnshire County Council Emergency Planning team at the time of first occupation;

- include emergency contact details for the Environment Agency, South Holland District Council, Lincolnshire County Council and South Holland IDB; and
- be reviewed annually by the occupier.

It is noted that this measure represents an improvement on the extant Class Q fallback, under which no Flood Evacuation Plan is required.

17. Residual Risk

Residual risk in this case arises from a defence breach or overtopping event exceeding the design event. The likelihood of such an event is extremely low (less than 0.1% in any year, before climate change uplift; less than 0.1% with sea-level rise to 2125 applied) and the modelled consequence at the application site is Low Hazard with maximum depth of 0.25 m and maximum velocity of 0.3 m/s. The combination of:

- a finished floor level set 450 mm above existing ground;
- a comprehensive suite of flood resilience and resistance measures;
- two hours' advance warning through the EA Floodline service; and
- a documented Flood Evacuation Plan with a designated first-floor refuge at approximately 6.0mODN

means that residual risk to the future occupants is properly managed for the lifetime of the development. The proposal does not increase flood risk elsewhere, since the building envelope and footprint are unchanged from the existing situation and the discharge to the IDB drain will be attenuated to greenfield rates.

18. Conclusions

This updated, site-specific Flood Risk Assessment has been prepared to support a forthcoming full planning application for the conversion of the existing agricultural building at land off Cade Drove, Gedney Broadgate, into a single residential dwelling on a Class Q fallback / betterment basis. It has been prepared in response to the pre-application advice issued by South Holland District Council under reference HPE-0377-26 (dated 18 May 2026), which identified that the existing FRA prepared by RM Associates (October 2023) requires updating to support any full planning application.

The principal conclusions are as follows:

- **Policy compliance** – the proposal complies with NPPF (December 2024) paragraphs 173–182 and the amended PPG (September 2025) by virtue of the change-of-use exemption at PPG paragraph 168 and the fallback position established by the extant Class Q approval H06-0868-23.
- **Vulnerability and zoning** – the development is classified as More Vulnerable and lies within Flood Zone 3a on an undefended basis. The defended NaFRA2 risk classification (March / August 2025 Flood Map for Planning) is Low (between 0.1% and 1% chance in any year).
- **Source of risk** – the principal source of flood risk is breach of the tidal defences along The Wash / River Nene. Modelled hazard at the application site in the 2115 0.1% AEP scenario is Low Hazard, with maximum depth of 0.25 m and maximum velocity of 0.3 m/s. The site is not affected by overtopping or by main river fluvial flooding.
- **Finished floor levels** – a minimum FFL of 3.35mODN is proposed, providing 450 mm freeboard above existing external ground level and freeboard above the modelled tidal breach depth in the climate-change-adjusted design event. Vulnerable electrical and mechanical services are located 500 mm above this datum.
- **Mitigation** – the proposal incorporates a full suite of flood resistance and resilience measures aligned with CIRIA C790 (2024), a SuDS drainage strategy controlled through the LLFA / IDB consenting route, a registered EA Floodline subscription and a documented Flood Evacuation Plan.
- **Fallback comparison** – the proposal represents demonstrable betterment over the extant Class Q fallback scheme. It halves the number of dwellings exposed to flood risk, reduces the residential population exposed by approximately 35–40%, maintains the approved FFL, enhances the resilience standard, formalises the drainage and SuDS strategy through statutory consenting, and introduces a documented Flood Evacuation Plan that the Class Q fallback was not required to provide.
- **Third-party impact** – the proposal does not increase flood risk to third parties. The footprint within Flood Zone 3 is unchanged from the existing situation, and the surface water discharge will be attenuated to greenfield rates.
- **Safe for the lifetime of the development** – the development can be made safe over its design life of 100 years through the combination of finished floor level, resilient construction, advance flood warning and the documented evacuation strategy.

Subject to confirmation of detailed drainage proposals through Building Regulations and IDB / LLFA consenting, and the imposition of standard planning conditions covering implementation of the resilience measures and Flood Evacuation Plan, it is considered that the proposal complies with Policy 4 of the South East Lincolnshire Local Plan and Section 14 of the NPPF (December 2024).

It is therefore concluded that the proposed development can be constructed safely and sustainably without increasing flood risk to others, and that no in-principle flood risk objection arises to the proposed full planning application.

Appendix A – Plans and Drawings Referenced

- Brown & Co / JHWalter, Site Plan – Drawing AP043259-1-PW-05, Rev A, 29/08/2023, Scale 1:500.
- Brown & Co / JHWalter, Existing Building Plans and Elevations – Drawing AP043259-1-PW-03, Rev A, 29/08/2023, Scale 1:100.
- Brown & Co / JHWalter, Proposed Class Q Conversion – Floor Plans, Elevations and Sections – Drawing AP43259-1-PW-04, Rev C, 12/09/2023, Scale 1:50.
- Shire Surveys, Topographical Survey – Drawing 2157-001, 07.11.2022, Scale 1:500.
- Forthcoming: revised Proposed Floor Plans, Elevations and Sections (single dwelling conversion) to be issued under the full planning application.

Appendix B – Environment Agency Mapping Outputs

The following Environment Agency mapping outputs were consulted in the preparation of this updated FRA and are reproduced (with permission) within the figures bound at the back of this report:

- Flood Map for Planning (refreshed March 2025 and August 2025) – site within Flood Zone 3 on undefended basis.
- Risk of Flooding from Rivers and Sea (NaFRA2, January 2025 release) – site within "Low" risk band on a defended basis.
- Risk of Flooding from Surface Water (NaFRA2, January 2025 release) – building footprint outside modelled flow path at all annual chance scenarios; limited shallow ponding modelled in adjacent drainage channels and along Bullock's Short Gate.
- Reservoir Flood Map – site not within any modelled reservoir inundation extent.

Appendix C – Tidal Breach Hazard Mapping (2115, 1 in 1000 year)

Tidal Breaching Hazard Mapping for the Lincolnshire and Northamptonshire coast (Environment Agency, CCN-2022-282185, October 2022), centred on TF 40058 21544. The mapping confirms that at the application site, in the 2115 0.1% AEP scenario:

- Maximum hazard rating: Less than 0.75 (Low Hazard)
- Maximum depth: 0.00 – 0.25 m above ground
- Maximum velocity: 0.0 – 0.3 m/s

This mapping output is consistent with the 2023 FRA conclusion that the site falls within Cell F8 of the SFRA Standard Advice Matrix.

— End of Report —