

Flood Risk Assessment

Change of Use of Agricultural Land to Builders Yard

Land North of Seas End Road, Moulton, Spalding



Lincs Design Consultancy

12 Vickers Lane, Louth, Lincolnshire, LN11 9PJ

T: 01507 611155

W: www.lincsdesignconsultancy.co.uk

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DOCUMENT HISTORY

ISSUE NO	COMMENTS	DATE
1	Planning	September 2025

1.0 Introduction

1.1 This Flood Risk Assessment (FRA) has been prepared to accompany a full planning application for the change of use of existing agricultural land to be used as a builder's yard at land north of Seas End Road, Moulton, Spalding.

1.2 The Government has placed increasing priority on the need to take full account of the risks associated with flooding at all stages of the planning and development process. This course of action seeks to reduce the future damage to property and risk to life resulting from incidents of flooding. National Planning Policy does not prevent all development in flood risk areas, and this would be unsustainable and result in economic stagnation, depriving existing communities of much needed homes, services, employment opportunities etc. It is in the essential interests of the vitality of settlements and for the wider economic and social wellbeing of the community, that development opportunities are not unnecessarily constrained. Accordingly, the aims of this site-specific FRA will be as follows:

- Identify and address flood risk issues associated with the development.
- Assess if the project is likely to be affected by flooding from all relevant sources both now and in the future.
- Assess whether the project will increase the flood risk elsewhere.
- Demonstrate that the project is safe and where possible, reduces flood risk.
- Propose measures to deal with the identified effects and risks.

2.0 Existing Site

- 2.1 The existing site is located to the north of Seas End Road, Moulton, Spalding. The grid reference for the centre of the site is TF 31528 25836.



Figure 1 - Aerial photograph showing the location of the site (site bound in red)

- 2.2 The site is approximately 0.93 ha and currently comprises an area of agricultural land, typically cultivated as non-cereal arable crops on a seasonal rotation.
- 2.3 The Environment Agency flood map for planning identifies the site as being within Flood Zone 3a.



Figure 2 - Extract from Environment Agency Flood Map for Planning (site bound in red)

3.0 Proposed Development

- 3.1 The proposed development seeks permission for the change of use of an area of existing agricultural land to a builder's yard. The yard will provide secure, organised space for the storage of building materials, plant and equipment.
- 3.2 Appropriate boundary treatments will be implemented to ensure the yard is visually contained and in keeping with the character of the area.

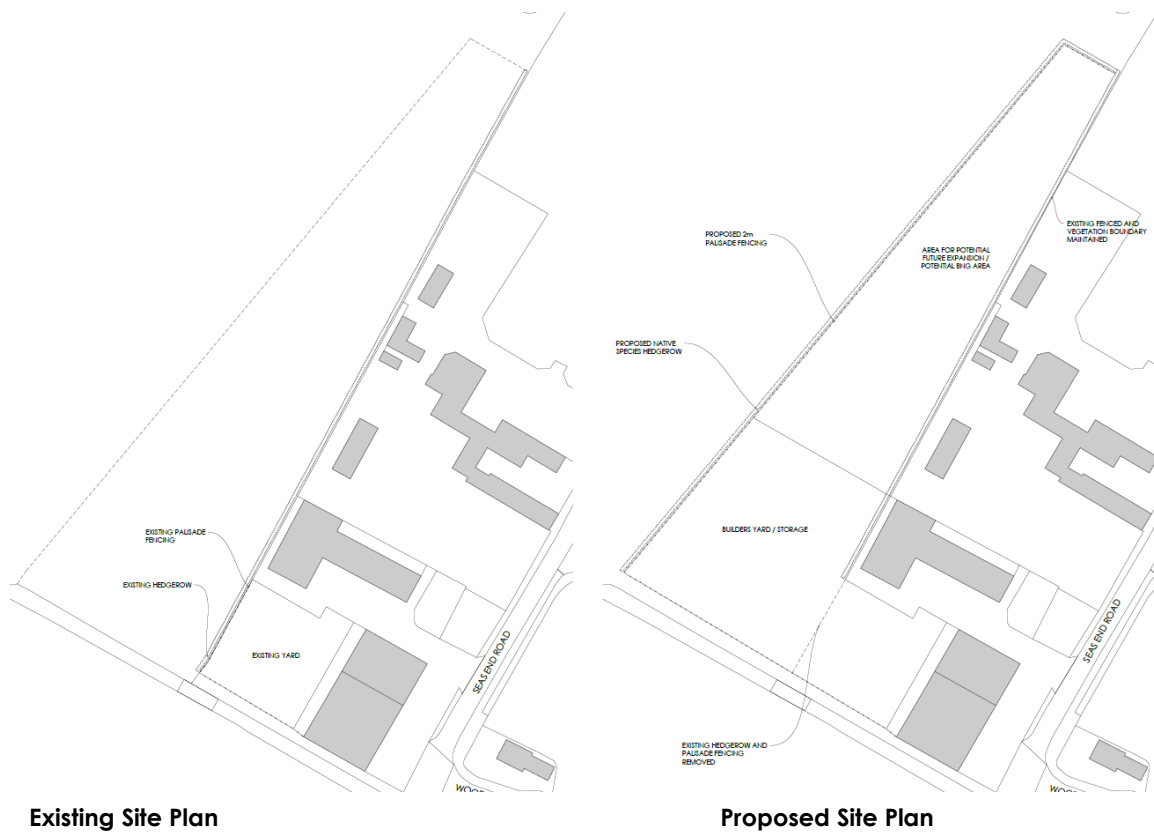


Figure 3 – Existing & Proposed Site Plans

4.0 Sequential & Exceptions Tests

- 4.1 Paragraph 175 of the National Planning Policy Framework (NPPF) confirms that some minor development and changes of use are not subject to the Sequential Test, nor the Exception Test.
- 4.2 Footnote 62 of the NPPF confirms that only Change of Use applications for caravan, camping or chalet sites, or mobile home or park home sites will be required to apply the Sequential and Exception Tests.
- 4.3 The South East Lincolnshire Local Plan (SELLP) reinforces this at Policy 4: Approach to Flood Risk where it states that *"The Sequential test is not required for sites allocated in the Local Plan, minor development¹ 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)."*
- 4.4 On the basis of the above national and local policy provisions, it is clear that the proposed development does not fall within the categories of development that are required to demonstrate compliance with either the Sequential Test or the Exceptions Test. The proposals are therefore acceptable in terms of flood risk, consistent with the NPPF and the South East Lincolnshire Local Plan.

5.0 Assessment of Potential Sources of Flooding & Mitigation Measures

- 5.1 This section presents an assessment of Flood Risk to the development from
- a) External sources; and
 - b) Potential of the proposed development to cause flood risk elsewhere.

TABLE 1: POSSIBLE FLOODING MECHANISMS		
Source	Significant?	Comment
Fluvial	Low	Distance from watercourse
Tidal/Coastal	Yes	If a breach of the defences occurred
Pluvial (drainage)	Low	On site run off.
Groundwater	No	Unlikely due to local drainage network
Overland flow	No	No higher ground adjacent to the site

Blockage	No	No culverts or bridges close to the site
Infrastructure failure	No	No major infrastructure has been identified
Rainfall ponding	No	No depressed areas which could encourage ponding.

a) Assessment of Flood Risk to Development from External Sources

5.2 Assessment of Flood Risk from Fluvial / Tidal Sources

5.2.1 The North Sea is located approximately 10 miles to the northeast of the application site; therefore, tidal flooding is considered to be a source of flood risk. The Hazard Maps provided by the Environment Agency show the hazard rating, depth and velocity of water for present day and future scenarios for a breach of the sea defences. These maps show that the site could be affected by tidal flooding from the North Sea if a breach of the sea defences occurred. A summary of the risks shown by the SFRA Hazard Maps is shown in Table 2. The existing tidal defences protecting the site consists of sea walls and earth embankments on the River Welland.

TABLE 2: SUMMARY OF TIDAL HAZARD MAPS			
Scenario	Hazard Rating	Max Depth (m)	Max Velocity (m/s)
Year 2115, 1% Fluvial / 0.5% Tidal	Some	0.25 – 0.5m and 0.5 – 1.0m	0 – 0.3

5.3 Assessment of Flood Risk from Overland Flow (Pluvial)

5.3.1 The Environment Agency Surface Water Flood Map shows that the site is at a Low Risk of surface water flooding.

5.4 Assessment of Flood Risk from Ground Water

5.4.1 The area surrounding the site is not known to suffer from ground water problems.

5.5 Assessment of Flood Risk from Reservoirs

- 5.5.1 The Environment Agency reservoir map shows that the site is not at risk of reservoir flooding.

b) Potential of the Proposed Development to Cause Flood Risk Elsewhere

5.6 The proposed development will NOT increase the area of impermeable surface within the site as the proposed builder's yard is expected to comprise unbound aggregate. Should an impermeable surface be applied, then surface water will be dealt with under the recognised hierarchy for the discharge of surface water from new developments. This should be as follows:

- Infiltration
- Water Course
- Public Sewer

5.7 British Geological Survey mapping indicates that the site lies entirely on mudstone and siltstone of the West Walton Formation. The West Walton Formations is described by the British Geological Survey as "*calcareous mudstone, silty mudstone and siltstone, with subordinate fine-grained sandstones and limestone or siltstone nodules*".

5.8 The British Geology Survey mapping goes on to indicate that the site lies on superficial Tidal Flat Deposits comprising clay and silt.

5.9 If surface water needs to be dealt with due to an increase in impermeable area, it is expected that infiltration drainage will not be feasible, but this should be explored through percolation testing. If this proves that infiltration drainage is not feasible then discharge at a safe rate to a local watercourse should be explored. If this is also not feasible then an agreement should be sought to discharge into the existing mains system at an agreed rate.

c) Mitigation Measures

5.10 The South East Lincolnshire Standing Advice Matrix provides guidance whether a development proposal is appropriate in terms of flood risk, whether the Environment Agency requires consultation and what mitigation / resilience measures are expected in order for permission to be granted.

5.11 Where the proposed development comprises the Change of Use and is within the 'Danger to Some' hazard zone, the Standing Advice Matrix shows that appropriate mitigation will be required. This means that the Environment Agency does not object in principle and does not automatically require direct consultation, but the development must demonstrate that appropriate mitigation measures are incorporated.

5.12 The following mitigation measures shall be incorporated into the development:

- Any above ground fuel storage tanks shall be bunded, with the bund able to hold 110% of the largest tanks capacity to contain spills and shall be fitted with lockable valves to prevent leaks or tampering during floods;
- Flood sensitive goods shall be suitably stored above yard level;
- Double stack pallets to increase clearance;
- Light, floatable items are to be strapped to prevent migration in event of flooding;
- An emergency relocation plan shall be developed, implemented and regularly updated by the site manager, to move plant equipment, mobile bowzers and small fuel tanks if a flood alert is issued;
- It is recommended, if it is not already, that the site is registered with the Environment Agency's 'Warnings Direct' flood warning system. The Agency provides this flood warning system in England and Wales and supports the public taking action to prepare and respond when these warnings are issued. The warnings are provided for flooding from rivers and the sea but not for localised flash flooding that cannot be predicted, for example from blocked or overloaded sewers or local groundwater flooding. The Agency issues warnings through media on TV and radio weather bulletins and on its website (www.environmentagency.gov.uk/floodline). In areas of particular risk, the Agency can send a warning message direct to people at home or work by telephone, fax or pager using an Automatic Voice Messaging (AVM) system.

6.0 Conclusion

6.1 The following conclusions, in relation to the questions posed at the start of this document are as follows:

6.2 ***Identify and address flood risk issues associated with the proposed development;***

The potential sources of flood risk have been discussed within this report. It has been established that tidal and surface water flooding are the dominant source of risk in the area.

6.3 ***Assess if the project is likely to be affected by flooding from all relevant sources both now and in the future;***

The SFRA Flood Maps show that the site is within the 'Danger to Some' hazard zone during 1% Fluvial / 0.5% Tidal Event in the year 2115. It has also been identified that the site is at Low Risk of surface water flooding.

6.4 ***Assess whether the project will increase the flood risk elsewhere;***

The proposed development is not expected to increase the sites impermeable area, however, if impermeable surfaces are increased then the relevant hierarchy shall be followed to safely discharge surface water.

6.5 ***Demonstrate the project is safe and where possible reduces flood risk overall and proposes measure to deal with the identified effects and risks;***

The project can be operated safely under flood risk conditions through a combination of preventative measures, secure storage, and emergency planning. These actions minimise risks to people, assets, and the environment, while also reducing the likelihood of pollution or material migration during flood events. By integrating with national flood warning systems and adopting resilient site practices, the project not only ensures safety but also contributes to wider flood risk reduction in the area.

6.6 This report demonstrates the proposed development is compliant with the requirements of the National Planning Policy Framework, and it is considered that planning permission should not be refused on flood risk grounds.

Appendix A: SFRA Flood Maps