

FLOOD RISK ASSESSMENT

VARIATION OF SEASONAL OCCUPANCY CONDITION (S/184/01284/17)

Willow Lake Holiday Park,

Lymn Bank, Thorpe St Peter, Skegness, Lincolnshire, PE24 4PJ

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DOCUMENT HISTORY

ISSUE NO	COMMENTS	DATE
1	Planning Application	22.02.2021

1 INTRODUCTION

- 1.1 This Flood Risk Assessment (FRA) accompanies a planning application for the variation of a planning condition at the Willow Lake Holiday Park in Thorpe St Peter near Croft. The proposal is to vary condition No.5 on application reference S/184/01284/17. The condition relates to seasonal occupancy and currently allows occupation of 9 no. static caravans between the 1st March in any year and the 6th January in the following year until 14/09/2037.
- 1.2 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 the project is safe and where possible, reduces flood risk.
 - Propose measures to deal with the identified effects and risks.

2 SITE LOCATION

- 2.1 The Willow Lake Holiday Park is located within the village of Thorpe St Peter to the west of Skegness and accessed via Lymn Bank (Figure 1). The Park is in a rural area and is bounded by Lymn Bank road to the north and east. To the west is agricultural land and to the south is a neighbouring caravan park (Rod and Line). The North Sea is approximately 7.5km to the east of the site. Despite its distance from the coast the site is located within Flood Zone 3 (Figure 2).
- 2.2 The caravans subject to the condition are shown on approved drawing number LDC1225-PL-01 (Figure 3); which is being included as part of the submission documents.

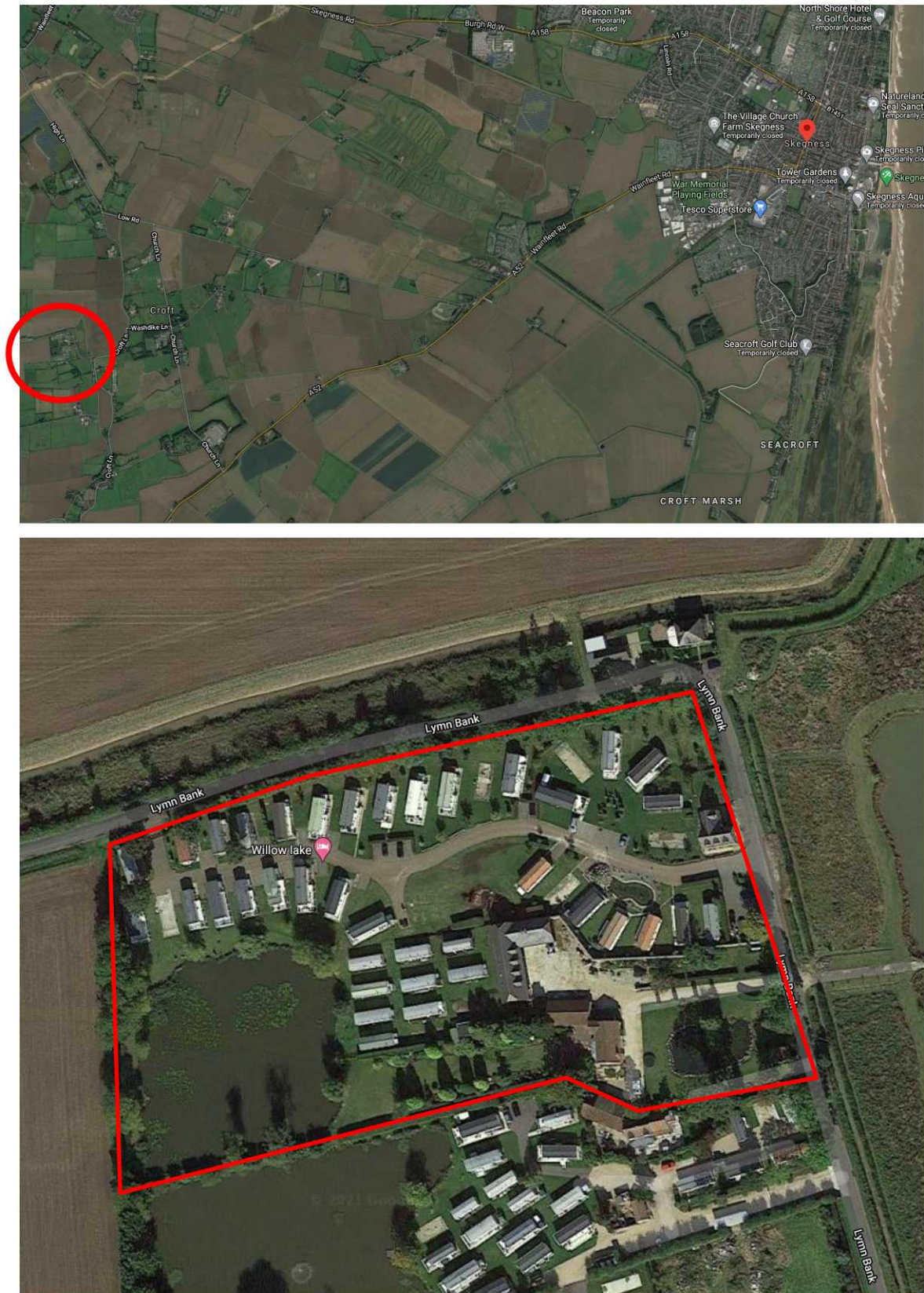


FIGURE 1: Aerial photographs highlighting location of Willow Lake Holiday Park

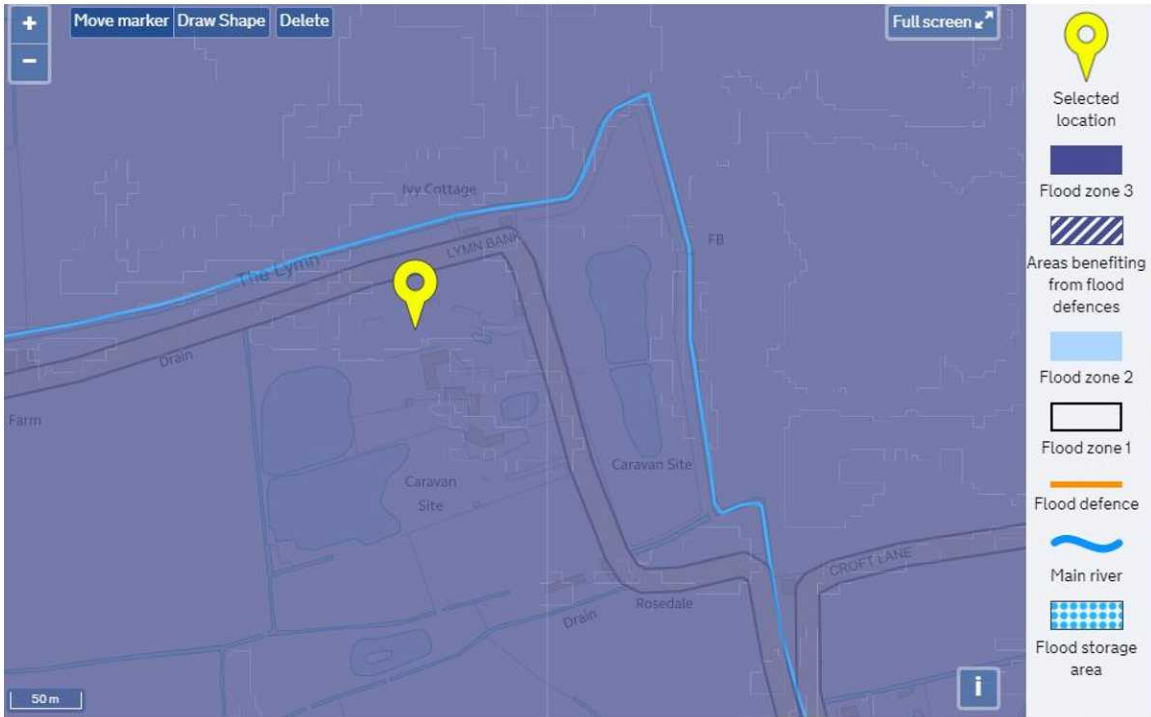


FIGURE 2: Extract from the Flood Map for Planning with Willow Lake indicated.



FIGURE 3: The approved plan showing the 36 no. caravans subject of this application.

3 PROPOSED SCHEME

- 3.1 The proposal is to vary condition No.5 on application reference S/184/01284/17. The condition relates to seasonal occupancy and currently states that:

'No caravans hereby permitted shall be occupied between 7th January and the last day of February in the same year for a period of 20 years from the date of this permission, which ends on 14/09/2037. From 14/09/2037 onwards, no caravan shall be occupied between the 1st November in any one year and 31st March in the succeeding year.'

- 3.2 The proposal is to vary the wording of the condition to read as follows:

'The caravans hereby permitted shall be available for year-round holiday occupation until 31st December 2049. From 1st January 2050 onwards, occupancy will be limited to between 15th March and 31st October in any one year, or the following Sunday, if the 31st does not fall on a Sunday.'

- 3.3 The area of the park covered by the permission is shown in Figure 3.

4 INVOLVEMENT

- 4.1 Discussions have taken place with the Environment Agency in relation to the holiday season. The advice (given on 10/02/2021) was that Willow Lake is outside of the current day hazard extents on their maps and those adopted in the East Lindsey District Council (ELDC) Strategic Flood Risk Assessment (SFRA). As such they wouldn't object to year-round occupancy to the end of 2049.

5 SEQUENTIAL & EXCEPTIONS TESTS

- 5.1 The National Planning Policy Framework (NPPF) expects that proposals within the flood zone should be subject to the Sequential Test, and if necessary, the Exception Test at the planning application stage.
- 5.2 In this case, it is considered that these tests are not applicable as the application involves the removal of a condition on an existing site. In addition, the Local Plan states at Annex 2 that the Sequential Test and first criterion of the Exception Test (community benefit) are automatically passed when the proposal is for holiday accommodation within the 'Coastal Zone'.
- 5.3 In relation to the second criterion of the Exception Test (safety), the Environment Agency and Local Planning Authority have confirmed that removing the seasonal restriction could be possible subject to the implementation of a Flood Warning and Evacuation Plan. Later in this document it will be demonstrated that suitable mitigation measures can be adopted and that using the caravans all year will be safe and will not increase risk elsewhere.

6 FLOOD HISTORY

- 6.1 The Environment Agency and Lindsey Marsh Drainage Board have advised that they do not have any records of flooding around the proposed development.

7 ASSESSMENT OF POTENTIAL SOURCES OF FLOODING

- 7.0 This section presents an assessment of Flood Risk to the proposal from:
- a) external sources; and
 - b) potential of the development to cause flood risk elsewhere.

A) **ASSESSMENT OF FLOOD RISK TO DEVELOPMENT FROM EXTERNAL SOURCES**

TABLE 1: POSSIBLE FLOODING MECHANISMS

Source	Significant?	Comment
Fluvial	Low	Local watercourses and drains i.e. Little River Lymn, Cowcroft Drain
Tidal/Coastal	Low	Only if a significant breach or over topping of the defences occurred in the future
Pluvial (drainage)	No	No effects from 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.

7.1 ASSESSMENT OF FLOOD RISK FROM FLUVIAL/TIDAL SOURCES

7.1.1 Although the site is located 7.5km from the coast the North Sea is said to be the principal source of flood risk in the area. The Hazard Maps provided by the Environment Agency show the hazard rating, depth, and velocity of water for present day and future scenarios for either a breach or overtopping of the sea defences. In both situations, the park is shown not to be affected by flooding during the worst-case present-day scenarios and the Agency has confirmed that flooding would not affect the site until at least 2050.

7.1.2 If overtopping did occur, the depth and velocity of the flood water would be greater closer to the sea defences as reflected in the Hazard Maps. Given the distance between the site and the defences it is considered that the likelihood of the site being affected by overtopping is low. Likewise, during a breach the depth and velocity of water would be at its greatest directly behind the defence, reducing as the land raises further inland.

- 7.1.3 The Breach Hazard Maps are based on computer modelling of simulated breaches at specific locations. Although these maps show a theoretical risk of flooding to the site should a breach occur, they do not consider the likelihood of a breach occurring. The likelihood of a breach occurring will depend on several factors, including the construction and condition of the defences in the area. The Environment Agency has confirmed that the site is protected from tidal flooding by concrete floodwalls supplemented by a programme of beach nourishment to maintain healthy beach levels. The defences are said to be in good condition and provide protection against a flood with a 0.5% chance of occurring in any year (1 in 200-year chance). These defences are inspected regularly by the Environment Agency to ensure that any potential defects are identified early.
- 7.1.4 The Humber Estuary Coastal Authorities Group (which includes the Environment Agency and ELDC) report entitled 'Flamborough Head to Gibraltar Point Shoreline Management Plan' also states that the coastline close to the site will continue to be protected against flooding at the same standard as the present day. Whilst this report is an aspirational document, it does show that there is a desire to continue to defend the wider area of Lincolnshire from tidal inundation.
- 7.1.5 The commitment to defend the Lincolnshire Coast is also evident within the Saltfleet to Gibraltar Point Strategy. This strategy sets out a plan to change the management regime where the Environment Agency may introduce structures onto beaches, in combination with continued beach nourishment, to form a sustainable flood risk management approach for the next 100 years. According to the Agency's website these new structures will be carried out between 2025 and 2030. Whilst this is beyond the timeframe of the LDO, the strategy commits to maintaining the beach nourishment programme; a programme which the Agency admits worked well and

protected thousands of properties during the 2013 tidal surge (a storm surge larger than that in 1953).

7.1.6 Whilst the current and potential future standard of defences reduces the likelihood of the defences breaching, there is a residual risk that a breach could occur. The risk of a breach is therefore not to be ignored and appropriate mitigation measures to make the development safe will still be required.

7.2 Assessment of Flood Risk from Overland Flow (Pluvial)

7.2.1 The Surface Water Flood Map shows that the site is not at risk from surface water flooding; Figure 4.

7.3 Assessment of Flood Risk from Ground Water

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

7.4 Assessment of Flood Risk from Reservoirs

7.4.1 The reservoirs flood map shows the site is not at risk from this source.

B) Potential of the Development to Cause Flood Risk Elsewhere

7.5 The proposal does not include any development and simply involves the variation of the seasonal occupancy restriction. To achieve year-round use a Flood Warning and Evacuation Plan has been produced. This Plan will ensure that the residual risk can be managed and as such, the proposal will not increase risk elsewhere.

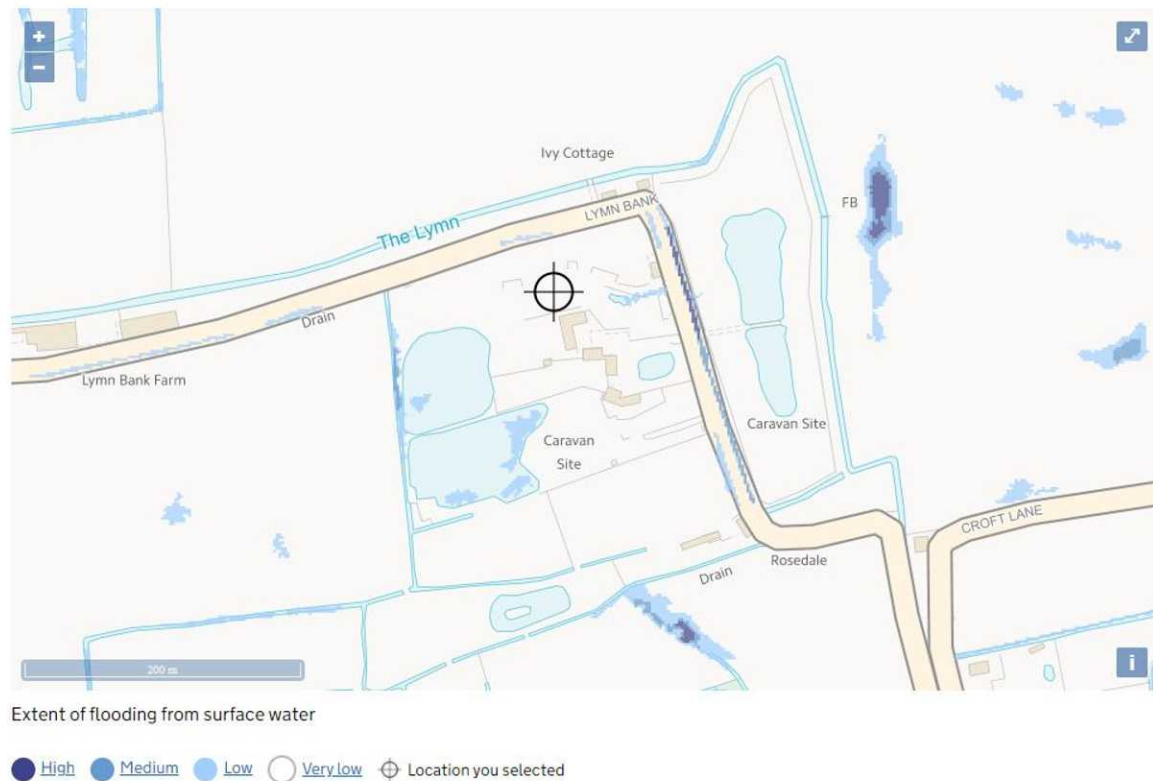


FIGURE 4: The surface water map shows the site would not be affected during the worst-case scenario.

- 7.6 In terms of the floodplain, the proposal will certainly have no impact as the physical development is either already in place or approved
- 7.7 The emergency services should not be overstretched as the site will have already evacuated. Consequently, if the forecasts were correct and a flood occurred, the situation should be no different for the emergency services.
- 7.8 In relation to evacuation, Burgh le Marsh to the north is the closest settlement that is not at risk of flooding. The Flood Map for Planning shows that the flood zone finishes 1.5km from Willow Lake along High Lane. As such, safe refuge can be reached in 3 minutes by car or on average 30 minutes walking.

8 MITIGATION MEASURES

8.1 As previously discussed, the advice from the Environment Agency is that the site is unlikely to be impacted by flood water should a breach of the tidal defences occur in an event with a 1 in 1000 (0.1%) chance of occurring in any year up to 2050. After 2050 the site may be impacted by flood water and as such the Agency advises that appropriate mitigation to manage the impacts of climate change will need to be implemented.

8.2 Taking a precautionary approach, the Environment Agency advise that an occupancy restriction should still be imposed. The following planning condition is proposed:

The caravans hereby permitted shall be available for year-round holiday occupation until 31st December 2049. From 1st January 2050 onwards, occupancy will be limited to between 15th March and 31st October in any one year, or the following Sunday, if the 31st does not fall on a Sunday.

8.3 A Flood Warning and Evacuation System to minimise impact on human life is already in place on the park. A revised Flood Warning & Evacuation Plan (FWEP) has been produced and is included as part of the application documents.

8.4 The site will continue to be registered with the Environment Agency's 'Warnings Direct' flood warning system. The Agency provides this flood warning service in England and Wales and supports the public acting 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.environment-agency.gov.uk/floodline). In areas of particular risk, the

- Agency can send a warning message direct to people at home or at work by telephone, fax or pager using an Automatic Voice Messaging (AVM) system.
- 8.5 The warning system will be used to provide the sites flood marshal with information on the severity of the predicted flood. Depending on the severity different procedures will be put into place; with the most extreme being a full evacuation of the site to higher/safer ground (which is only a short distance to the north). A copy of the Evacuation Plan and a map to show the route to the safer ground will be positioned in a prominent place on site. A simplified version of the plan will either be handed to all guests on arrival or located in each caravan. Mobile phone contact numbers will be requested from all guests so that the marshal can contact them in the event of an emergency.
- 8.6 Flooding events are generally predicted with a two-hour warning being given on pending events and the road network is adequate to allow escape inland in the event of an unpredicted flooding event.

9 CONCLUSIONS

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

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 flooding is the potential future source of flood risk in the area.

Assess if the project is likely to be affected by flooding from all relevant sources both now and in the future: The Flood Maps show that the site could be affected by a breach or overtopping of the sea defences in

the future but not during the present day. The likelihood of a breach in the defences is considered low given their current good condition and the commitment by the Humber Estuary Coastal Authorities Group to maintain and raise the defences in the medium- and long-term future.

Assess whether the project will increase the flood risk elsewhere: The Flood Warning and Evacuation Plan will ensure that the residual risk to the site is low and that there will be no impact on the surrounding area.

Demonstrate the project is safe and where possible reduces flood risk overall and proposes measures to deal with the identified effects and risks: A flood warning and evacuation system will be put in place as part of the proposal.

- 9.2 The site has been identified in an area that is at risk from flooding, however national planning policy emphasises the need for a balanced flexible approach which addresses the risks of flooding whilst recognising the benefits of development. It is considered that the risk of flooding is real but relatively low. Flooding events are generally predicted with a two-hour warning being given on pending events and the road network is adequate to allow escape in the event of an unpredicted flooding event. The mitigation measures proposed in this report will reduce the risk to property and human life.
- 9.3 This report demonstrates the proposed development is compliant with the sequential and exception tests set out in the NPPF and therefore, it is considered, planning permission should not be refused on flood risk grounds.