PROPOSED GROUND MOUNTED SOLAR PANELS AT LANGARY GATE HOUSE, LANGARY GATE ROAD, GEDNEY HILL, SPALDING, PE12 0RU.

FLOOD RISK ASSESSMENT



View of site

S M Hemmings B Sc C Eng MICE MIWEM,
13 Lea Gardens,
Peterborough,
PE3 6BY

This flood risk assessment has been prepared solely to support the planning application for the proposed solar panels at Langary Gate Road, Gedney Hill, Spalding. The author has made every effort to provide an accurate assessment of the flood risk but accepts no liability should the information be found to be incorrect or incomplete, or if it is used for any other purposes other than for which it was originally commissioned.

Introduction

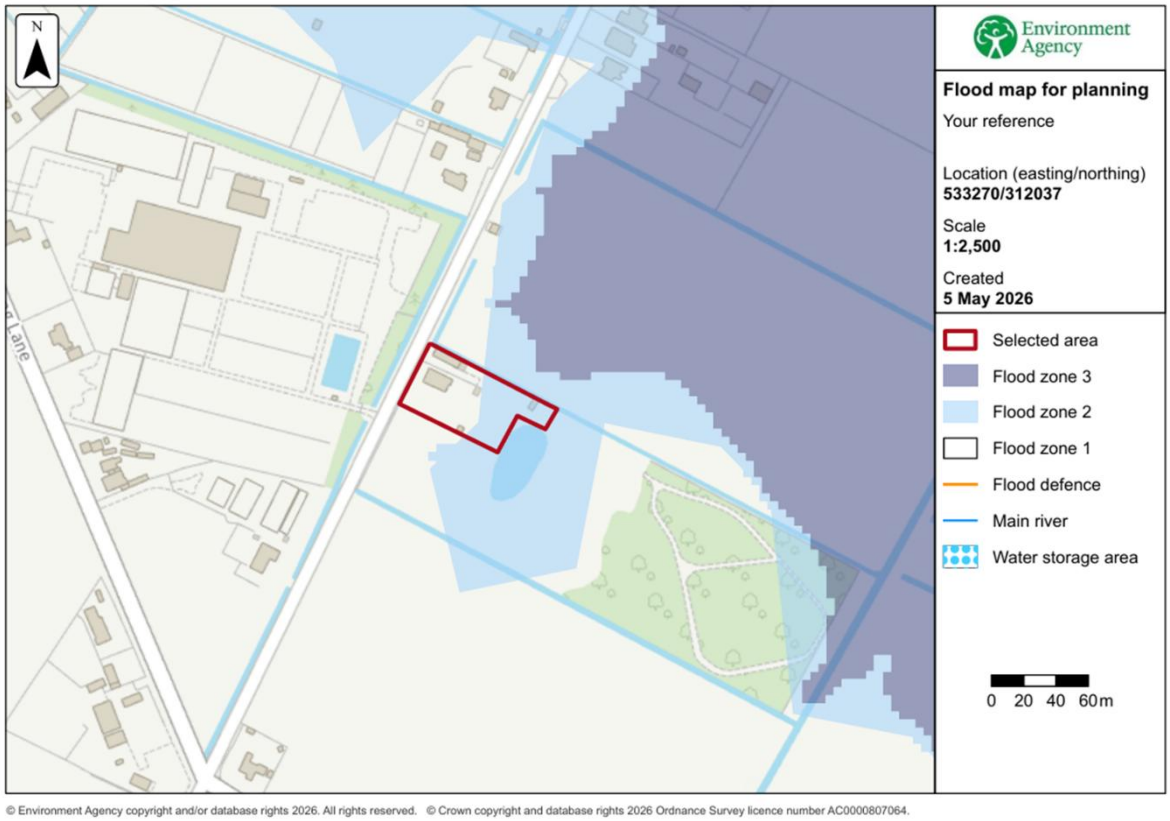
A planning application is due to be submitted to South Holland District Council for permission to construct an array of ground mounted solar panels at Langary Gate House, Langary Gate Road, Gedney Hill, Spalding, PE12 0RU.

The site is within Flood Zones 1 and 2 as shown on the Environment Agency's Flood Zone Map. These maps do not take into account existing flood defences.

The site is shown within the defended area of the South Holland District Council's Strategic Flood Risk Assessment (SHDC SFRA) map and is located in the South Holland Internal Drainage Board district.

Environment Agency (EA) Flood Zones

The map below is taken from the Environment Agency website and shows the flood zones in the area.



© Environment Agency copyright and/or database rights 2026. All rights reserved. © Crown copyright and database rights 2026 Ordnance Survey licence number AC0000807064.

It can be seen that the eastern 50% of the area of this plot, where the solar panels will be located, is within flood zone 2 and the western 50% of the area where the house is located is in flood zone 1.

Application Site

Applying the flood risk vulnerability classification in Table 2 of the Guidance, a residential development is classified as "more vulnerable", and solar farms are considered to be essential infrastructure.

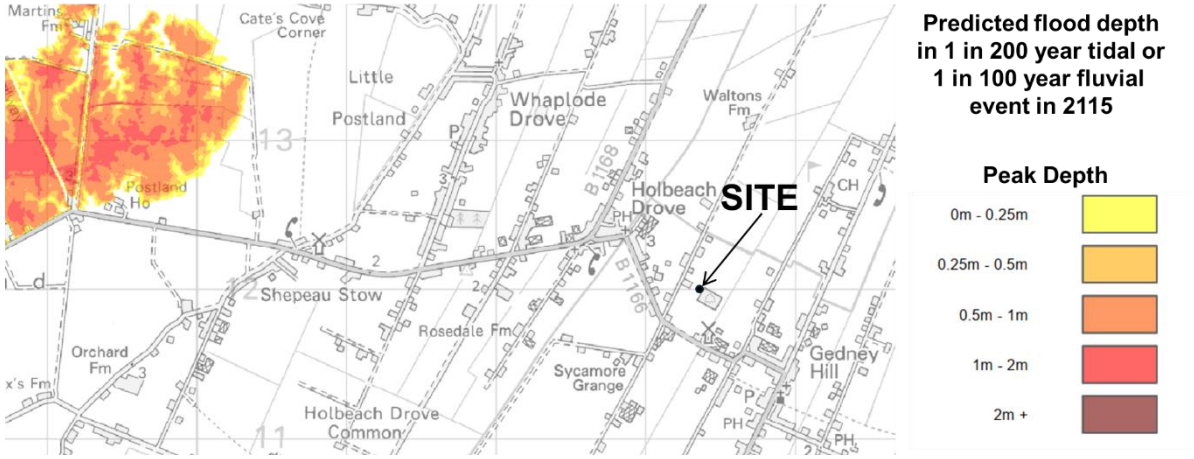
Table 3 of the Guidance is shown on the next page:

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	X	X	X	✓*

It can be seen that both essential infrastructure and a more vulnerable development are considered satisfactory in flood zone 2.

South East Lincolnshire Planning Website

The relevant part of the map in the South East Lincolnshire SFRA for this area is shown below. This shows the predicted residual peak depth of flooding for the 1 in 200 year tidal or the 1 in 100 year fluvial event in 2115 and this indicates that no flooding is predicted in the area of Holbeach Drove and Gedney Hill in this event. There are no maps available predicting the residual depth of flooding in a 1 in 1000 year event in 2115.



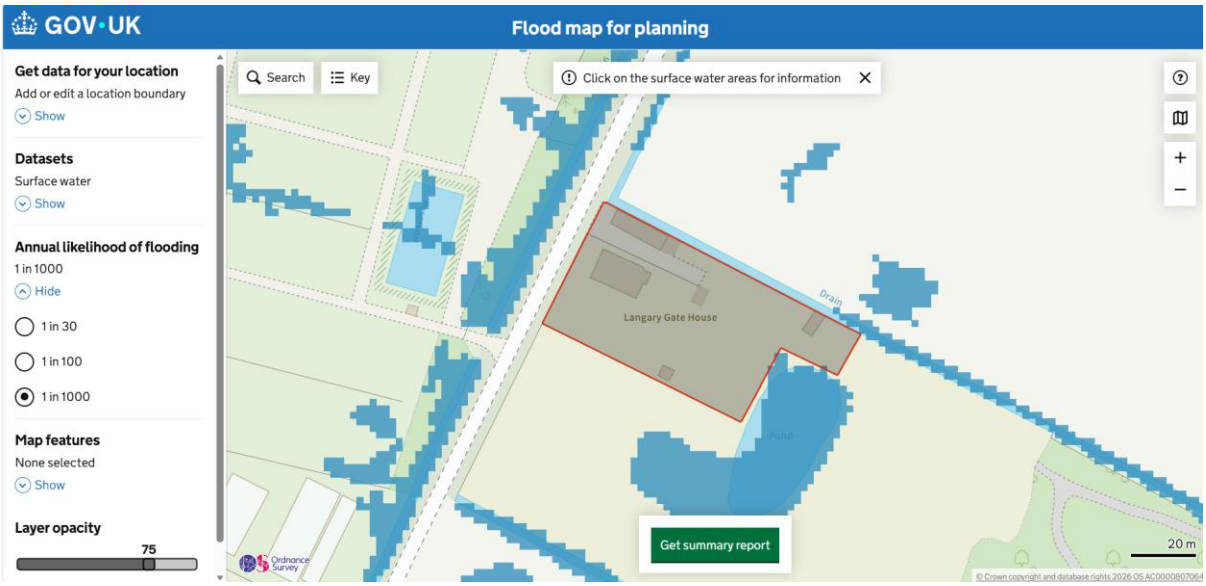
The above map only shows flooding from rivers and the sea. The flood risk from drainage channels maintained by the South Holland IDB needs to be considered. South Holland IDB maintains a system of sluices, pumping stations, and drainage channels which convey surface water into the River Welland, the Wash and the River Nene to control water levels throughout the South Holland IDB area.

South Holland IDB watercourses generally state that their watercourses provide a standard of 1 in 100 years with a freeboard of 300mm in urban areas. In an extreme event water levels will rise but this will be a slow process and it would be at least 24 hours before levels were high enough to begin to flood low land in the area, and after

this the level of the flood water would need to rise another 1.0 metre before the development site would be affected.

Surface Water Flooding

The map below is taken from the Environment Agency website and shows the extent of surface water flooding in a 1 in 1000 year event in the area.



It can be seen that there is no predicted surface water flooding on the site in this event.

Conclusions and Recommendations

It can be concluded that as the panels are approximately 1.0 metre above the ground level the risk of flooding is extremely low, and can be considered to be acceptable.

All electrical connections should be located as high as possible above ground level.

The owner of the property should register with the Environment Agency's Floodline Warnings Direct Service.

5th May 2026

Stuart Hemmings B Sc C Eng MICE MIWEM

Tel: 01733 566966 or Mobile: 07804 189365

stuart.hemmings@btinternet.com