FLOOD RISK ASSESSMENT – Application for the installation of Photovoltaic (PV) panels on existing flat roof at Felpham Pumping Station.

Felpham Pumping Station
Sea Road
Felpham
Bognor Regis
West Sussex
PO22 7AW

10/01/2014 – Completed by Ian Buchan, MEICA – Environment Agency

Site Location – Please see attached plan.

Existing Flood Risk

The proposed site is located within Flood Zone 3 according to the Flood Map for Planning, (see attached map). The risk in this location is primarily Tidal. The 2011 Coastal Boundary Conditions Project estimated that the present day 0.5% AEP (1in200yr) tidal level is 3.8 mAOD and that with Climate Change this will likely rise to 4.9 mAOD in 2115.

Existing Flood Defences

Coastal defences run along the frontage in this location with crest heights of 5.64 mAOD or higher. The condition of these defences is visually inspected by the Environment Agency and the most recent inspection suggested that the defences in this location are in 'Fair' or 'Good' condition.

Proposed works and Flood Risk

The application is to install PV cells on the roof of the Felpham Pumping Station building. We have considered the potential impact that this may have on flood risk and believe that the proposed works are acceptable based on the following points;

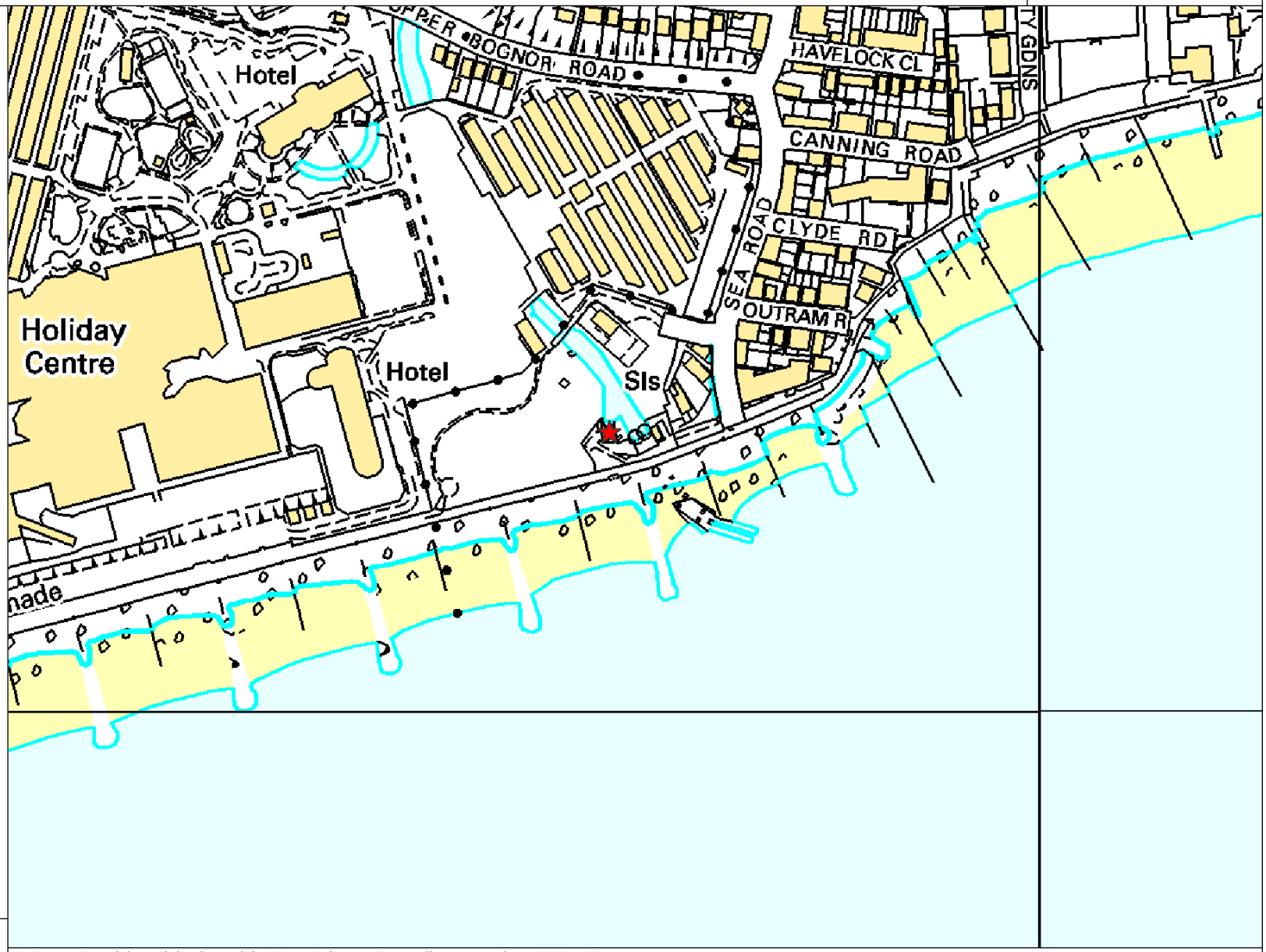
- The nature of the works would be classed as Low Vulnerability to flooding
- The PV cells are to be installed on the roof of the Pumping Station building which is around 8.6 mAOD. This is over 3 metres above the projected 5% AEP tidal water level in 2115.
- The Pumping Station building already has a hard roof and therefore the presence of PV cells would not result in an increase in surface runoff.

Ian Buchan

Felpham Pumping Station - Bognor Regis

Environment Agency

Legend

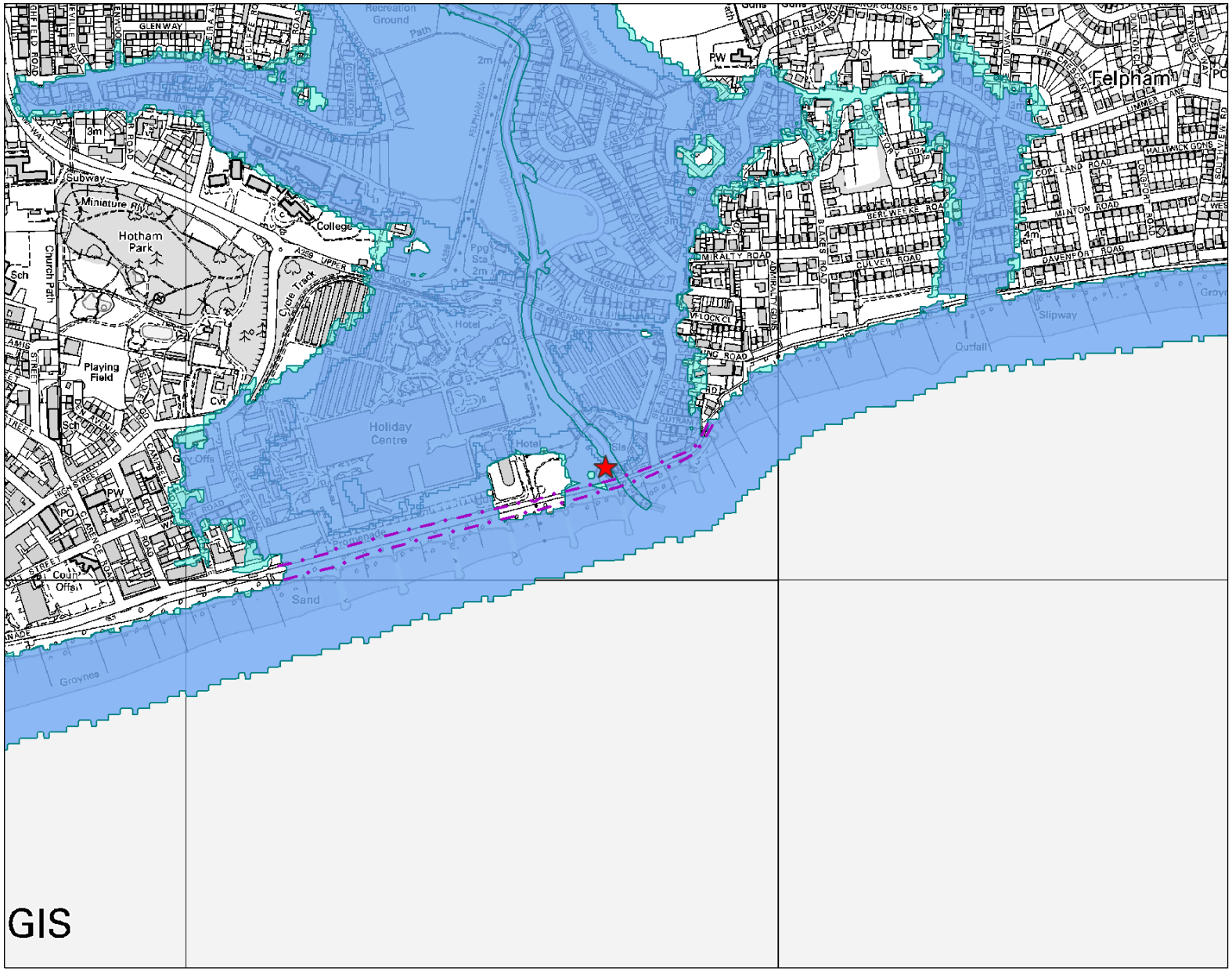


0 38 76 114 m.

N W E S

© Crown Copyright and database right 2014. Ordnance Survey licence number 100024198.

Felpham Pumping Station - Flood Map for Planning



Environment Agency

Scale 1:10,000

N
W E
S

Flood Map for Planning (Rivers and Sea)

- Flood Map - Defences
- Areas Benefiting from Flood Defences
- Flood Map - Flood Storage Areas
- Flood Map - Flood Zone 3
- Flood Map - Flood Zone 2

Flood Map for Planning (Rivers and Sea)

(assuming no defences)

Flood Zone 3 shows the area that could be affected by flooding:

- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

Flood Zone 2 shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

© Environment Agency copyright and / or database rights 2014. All rights reserved. © Crown Copyright and database right 2014. Ordnance Survey licence number 100024198.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk