

From: [REDACTED]
To: [Cleve Hill Solar Park](#)
Cc: [SaveGraveneyMarshes](#)
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Attachments: [REDACTED]

Here is the written version of my five minute contribution to the meeting on Monday 22 July

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FLOOD RISK EVIDENCE

Professor John Ellis

As a Whitstable beachfront resident, I'm concerned about the increased flood risk to the area that will be caused by presence of this project.

The current sea defences are a response to catastrophic [floods of 1 February 1953](#). 316 people were killed in UK. There are [famous photos](#) of people being rescued by boat from their first floor windows in Whitstable and [film of the devastation](#).

What caused these floods? Four factors:

One: Normal seasonal high tide level

Two: Low atmospheric pressure

Three: North wind driving sea into the natural funnel that is the North Sea, which finds its narrowest point in Whitstable Bay

Four: Recent heavy rains being decanted into the Swale, Medway and Thames

Result was a record high tide of 4.1 metres.

The current flood defences in the area, and also the Thames Barrier, are responses to this record high tide.

However, this record was reached again in December 2013 when Whitstable Harbour and Standard Quay in Faversham were overtopped, and homes were evacuated. But that event was caused by just [three of the factors](#) involved in the 1953 floods.

Luckily, there had been no heavy rains in the south east. If there had been, then the waves and tide would have overtopped the 3 remaining feet of the existing sea defences.

Now we have a global climate emergency. Normal sea levels are conservatively predicted to rise by 4 inches. Emergencies like that of 2013 are becoming the new normal.

The Environment Agency has had to [change its traditional policies](#). Its chair recently said "We can't win a war against water by building away climate change with infinitely high flood defences."

The policy is now one of 'managed retreat'. The site proposed for the Cleve Hill project is bang in the middle of an important area earmarked for this managed retreat.

Graveney Marshes would provide a natural sponge that could absorb the volume of water involved in future tide events even bigger than those of 1953 and 2013. This would involve abandoning the existing sea defences in those areas, saving the towns of Whitstable and Faversham.

In their evidence to you, the Environment Agency has said that, if it were not for the proposal, they would like to carry out managed realignment of the coastline at Cleve Hill in the next 5 to 10 years.

Using the Graveney Marshes in this way would provide them with 200 hectares of the region's 535 hectare obligation for intertidal habitats. More than one third, that is. This was agreed through public consultation with local stakeholders.

I've asked them where they would be able to find that 200 hectares if the solar plant was built and had to be defended from the sea. They currently say they have no idea.

So this site is important in the future management of the coastline, according to the Environment Agency's new thinking on the issue, now that they are facing up to the climate emergency. It's also crucial to the continued existence of the homes and businesses of Whitstable and Faversham. The developers have chosen the wrong site, in other words.

The question of flood risk raises one further issue.

If permission is granted (which I hope it won't be), who is going to pay for defence of this site for its 40 year life? It should certainly not fall to the public purse. Flood defences may ultimately be the Environment Agency's responsibility, but this decision would dump this extra unneeded responsibility on them. The Environment Agency has other plans for this area in relation to flood management: a strategy of managed retreat. So it is illogical to make them alter their strategy without compensation.

So the expense should be the responsibility of the developers. This is something they don't seem to have costed. Given this, and given the transient nature of modern companies and how they wriggle out of their long-term obligations, compensation for the extra costs of flood defences should be a

requirement of any permission. The developers should be required, as a condition of any permission, to endow an independent fund to cover the total costs of sea defences at this site during its 40 year anticipated life.

Solar power is certainly part of the solution to our climate emergency. But this plant on this site will simply make the emergency worse.