

## Shoreham Cement Works Area Action Plan Issues & Options

### Summary of Responses

#### Chapter 5F: Climate change

There were a total of 175 responses to this chapter. These consisted of 3 general comments on the chapter and 172 responses to the question/s.

There were a total of 3 general comments on this chapter. These are summarised below.

#### District, Borough, City and County Councils

**A Horsham District Councillor stated** that in addition to requiring zero carbon and zero waste development, zero whole life impact should be explored.

#### Other Organisations

**Gatwick Airport** commented that the site is on the edge of their wind turbine safeguarding zone. Consult with them if a turbine is proposed

**Friends of South Downs** state that in addition to requiring zero carbon and zero waste development, zero whole life impact should be explored

#### Individuals

No individuals made general comments on Chapter 5F.

#### Question 13: What renewable energy generation do you think the site could offer?

There were a total of 86 responses to this question. These are summarised below.

#### District, Borough, City and County Councils

**Adur and Worthing District Council** consider the site to offer a range of renewable energy generation opportunities, including roof top solar, ground source or water source heat pumps. Impacts on the chalk aquifer and River Adur would need to be considered.

#### Parish and Town Councils

**Findon Parish Council** state solar and hydro power could be used. **Upper Beeding Parish Council** suggest roof top solar on the cement works and pyrolysis (not incineration) making use of dry agricultural waste.

#### Other Organisations

**Brighton City Airport** state turbines within 15km of an aerodrome will need Aerodrome Safeguarding assessment and consultation with the airport authority.

#### Individuals

- 60 individuals favoured solar (including using roof space esp. of commercial buildings)
- 25 individuals suggested heat pumps of one type or another, 16 favoured ground source heat pumps and there was also mention of using the river as a source of heat exchange
- 23 individuals favoured wind, although 7 others also specifically stated the site is not suitable for wind turbines
- 11 individuals favoured hydro / tidal power making use of the river

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- 2 individuals favoured biomass (methane, reed beds), there was also the suggestion of pyrolysis (not incineration) powered by dry agricultural waste
- Other innovative technologies mentioned included hydrogen and a small modular nuclear reactor
- 2 individuals stated that investment should go into offsite renewables rather than on site
- 5 individuals stated the site shouldn't be used for any renewables or only temporarily so with restoration to natural downland as ultimate goal

Challenges / barriers to renewable energy generation on site were also stated including shade, lack of wind, need to not compromise biodiversity and avoiding impact on landscape and views. Other opportunities were identified including connecting to the offshore wind cable passing near to site, and grey water recycling.

### **Question 14: What opportunities do you think there are for the design of the redevelopment to ensure resilience to climate change?**

There were a total of 86 responses to this question. These are summarised below.

#### **District, Borough, City and County Councils**

**Adur and Worthing District Council** note that with climate change allowances, Flood Zone 3 will encroach onto the southern part of the Riverside and may also affect the access road. Recommend better integration of water / flooding and climate change sections of AAP. Review what uses are appropriate where given flood risk and apply sequential approach. Incorporate information and policy recommendations of Level 2 Strategic Flood Risk Assessment, consider whether an update to the Level 2 assessment for the site would be beneficial.

Parts of Riverside area are at risk of tidal flooding in the future considering climate change – this impacts suitability for vulnerable uses. Reference should be made to surface water flood risk. Need to investigate the quality of existing river embankment flood defences. Refer to Adur Catchment Flood Management Plan and future policy to remove defences in the lifetime of this development.

Surface water drainage comments – follow hierarchy and investigate infiltration rates in line with BRE365. Design infiltration systems to cater for 1 in 10yr and 1 in 100yr storm events with climate change allowances. Technical specifications also given for any discharge to local watercourse. Support for appropriately designed surface water drainage features. Agreement that areas C and D to be considered as greenfield for surface water drainage purposes. A 45% allowance for climate change needs to be used. A number of specified events should be tested in relation to drainage from area A (Riverside).

#### **Parish and Town Councils**

**Findon Parish Council** suggest indigenous tree planting to create shade. They also state flood defences should be improved.

#### **Other Organisations**

**Southern Water** does not currently serve the site but given wider water neutrality concerns and forecast falling water supply, site should be an exemplar in sustainable water management (SuDS, greywater recycling and rainwater harvesting)

**Green Steyning** state there is a big opportunity for a carbon neutral site

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#### Individuals

- 17 individuals referred to flood resilience, including river defences, the possibility of raising buildings, the need to avoid the flood plain and the issue of rising sea levels
- 2 individuals also stated the need to minimise hard surface and address surface water run off
- 8 individuals referred to water use and rainwater storage (building and area-wide measures), grey water use and other measures to minimise water use
- 9 comments were made relating to building insulation and colour (to combat over heating), passive air flow, shutters on windows, and avoiding homes in overheated areas
- 8 individuals commented on the site being entirely self-sufficient using 100% renewables, reference was also made to the design of roofs to maximise scope for solar panels
- 7 individuals referred to resilience through discouraging car ownership, improving green travel (walking & cycling), public transport or even providing a water taxi
- 7 individuals commented on reusing existing buildings or materials, using green or local building materials, recycling materials, and the potential for carbon sequestration in building materials
- 5 individuals stated green roofs and green walls would improve climate change resilience
- 4 individuals requested tree planting for shade, using drought resistant planting
- 2 individuals mentioned the need for resilience against cliff collapse and ground shrinkage
- 2 suggestions for suitable nesting sites within new build, hedgehog corridors, bug hotels, ponds/streams for biodiversity
- 1 individual suggested food growing areas
- 10 individuals felt there are lots of opportunities to design in climate change resilience and the redevelopment could be an exemplar in this
- 5 individuals stated the site should not be redeveloped at all and instead should be rewilded / restored as downland or left to nature.