



Minsmere Levels Stakeholders Group

EDF's Sizewell C requested Development Consent Order application changes

Whilst these changes have been published on the Sizewell C PINS website, the Examining Authority (ExA) has not formally accepted these changes as material or non-material and will not formally accept or reject them until during the Preliminary Examination.

EDF state that they do not believe that the changes result in a significantly different project being proposed than that contained in the original DCO and that these changes should be seen more as a refinement of the original application. The only significant extension to the project is for compensation land for Sizewell Marsh SSSI fen meadow loss in Pakenham who will become Interested Parties once the changes are formally accepted by the ExA.

What has changed from a coastal perspective? The significant changes are:

1. Installing a sheet pile temporary Hard Coastal Defence Feature (HCDF) +7.3m AOD tied into crag at -9 metres OD, 14 metres landward of the original HCDF design in the DCO
2. Raising the initial height of the permanent HCDF to 12.6 metres and adaptive design to 16.4 metres (envisaged in 2140)
3. Extending the permanent Beach Landing Facility (BLF) to ~100 metres and adding grillage for grounding barges
4. Introducing the temporary BLF as a jetty structure 505 metres in length to support a conveyor system for delivery of aggregate, loose construction materials, etc.*
5. Providing the first draft of the Coastal Processes Monitoring and Mitigation Plan [CPMMP TR523](#)

* Note that change 4 is not what was consulted upon in the Stage 5 Consultation and is 105 metres longer than the longest suggestion at Consultation Stage 5.

The CPMMP states that monitoring is only proposed across 3km of coast centred on SZC, which means from the Ness at Thorpeness to Minsmere Sluice only, much less than our request for Aldeburgh to Walberswick/Southwold harbour entrance or as suggested by the Secretary of State (SoS) in Scoping Opinion reports. It also does not plan to monitor the Sizewell or Dunwich Bank complex (SDB) on the basis that SZC activities will not impact them and restricts monitoring to the longshore bars only by X-band and one bathymetric survey every 5 years. Some monitoring near the intakes and outfalls that are to the East of the Sizewell Bank Coralline Crag will be done as part of the Deemed Marine License.

It is surprising that no monitoring of the SDB is to be done, despite the suggestions by the Marine Management Organisation, given the accepted expert view of their attenuating effect on wave heights reaching the shore. EDF are relying on the longshore banks alone to provide attenuation and do not expect the existing attenuation provided by the SDB to change over the lifetime of the station despite historic evidence that changes are occurring and reports from experts and SZB safety documents that the SDB is key to the wave climate in-shore. The Dunwich Bank and the gap between the two banks will be key to the wave climate for SZC given the north easterly wave climate in the bay and SZC's more northerly situation. Whilst EDF's impact on SDB will undoubtedly be small, the effect of the SDB on the wave climate at SZC will be key, especially during storms and surges given the expected sea level rise due to global warming.

The temporary sheet pile HCDF (+7.3 metres AOD) will be breached for access to the permanent BLF once the core of the final HCDF has reached 9.1 metres AOD. The conveyor from the temporary BLF will over sail the temporary HCDF and follow the site haul road to the stockpile area.

Rock armour for the permanent HCDF will be landed directly onto the beach from grounded barges.

A new sketch of the initial installation of the HCDF and SCDF is given on page 26 of [HCDF Figures](#) with a redline indicating the previous DCO outline. The new SCDF raises the height of the existing sacrificial dune, but once again there are no references on the sketches relative to low or high tides, AOD, horizontal or vertical scale in these sketches. The temporary sheet pile HCDF will be buried beneath the final HCDF as shown. The advance of the HCDF toe is not only due to the increased height and toe depth, but the entire structure has also been moved seaward by a number of metres. Once again, dimensions are not specified and no aerial plan view of the extent of the HCDF or SCDF on the foreshore is given. EDF state that the toe will only be 2.0m seaward of the design in the DCO which seems both unlikely and not evidenced by their sketch on p26. They have also extended the SCDF further into the existing beach presumably to avoid early exposure of the HCDF which in the DCO was expected at around 2050. For this scheme to be successful the SCDF must be successfully established beyond the existing sacrificial dune, already subject to erosion, and then maintained, otherwise the new HCDF is likely to be exposed at the permanent Beach Landing Facility well before the 2140 date EDF have given for introducing the adapted HCDF.

The new HCDF has increased in height from 10.2 metres to 12.6 metres plus 2 metres landscaping (total 14.6 metres) and the initial toe depth is +0 metres AOD (2.2.184 – 2.2.185 [Main Site Document](#)) lower than the level in the original DCO design. The toe will be 2 metres seaward of the original DCO design and 10 metres seaward at the abutment with the permanent BLF. A coffer dam would be needed to install the HCDF toe. The north eastern corner of the site (currently the northern mound) will move 20 metres south to move it away from the site boundary and RSPB SPA land to enable maintenance access. The SCDF crest level increases from ~5.0 metres to 6.4 metres.

There is clearly an intention to monitor the SCDF via a combination of Lidar and Aerial photography to estimate beach shingle movements but there is no statement of when the new HCDF would likely be exposed unlike the original DCO documents anticipation of exposure around 2050. The adaptive design is completely predicated upon the likelihood of HCDF overtopping and any discussion about exposure of the HCDF toe has gone with only reference to SCDF maintenance.

The adaptive design of the HCDF and SCDF is given on page 31 and the toe clearly goes further under the SCDF again with no reference levels or dimensions. The adaptive HCDF design is now set at 16.2 metres AOD (18 metres with landscaping) but is not expected to be required before 2140 (2.2.194 [Main Site Document](#)). No adaptation is expected to be necessary during the operational lifetime of SZC. The new toe would be at -1.5m AOD and would require a coffer dam to install. The new toe would be ~20 metres seaward of the design in the existing DCO and the SCDF would also be extended 20 metres seaward. This places the toe significantly into the existing beach profile.

When questioned about the detailed plans relative to the existing beachfront and sacrificial dune system at a meeting between EDF and Theberton and Eastbridge Parish Council last week, EDF stated they were still working with engineers and designers on the final plans and were not ready to share them.

It is still not clear therefore how effectively any adaptive design can be constructed when the likelihood is the sea will be potentially undercutting the HCDF with a +0m toe in the original design rather than the adaptive design given mean low water spring tides are at around -3.5 metres AOD at Sizewell. Indeed, for safety, the toe of any HCDF should be below MLWS.

The new longer permanent BLF will require additional small piles for the grillage and the dredge volume will double to ~9,250m³ due to the extension going deeper into the longshore bar. An additional eight 1 metre piles will be needed for the extended temporary deck (28 in total) plus the dolphin piles. The BLF will take about 100 deliveries of 3,000 tonnes per annual campaign for 4 years and then later for occasional ALL deliveries during operation.

The new temporary BLF jetty will be ~505 metres in length, ~12 metres wide and with ~62 metre jetty head. It will have a covered conveyor and vessels are “assumed to include an excavator at deck level to unload material.” (2.2.76 [Main Site Document](#)). Vessels will delivery ~4,500 tonnes 400 times per annual campaign for about 8 years. No dredging is required due to the depth of water beyond the outer longshore bar. 114 piles 1.2 metres in diameter are required. Pile spacings are no less than 10 metres apart along the length of the pier and no less than 12 metres apart at the unloading platform. This jetty is not designed to take individual heavy loads and there is no permanent haul road to the facility. Piles will be removed by pulling up or cut off below seabed level.

What has changed from inland hydrology perspective? The significant changes are:

1. The water resource reservoir has moved adjacent to Water Management Zone 5 at The Black Walks and the original location will be used as additional fluvial flood attenuation
2. Change to the Sizewell Marshes Site of Special Scientific Interest (SSSI) crossing increasing the width of the culvert

The new position of the reservoir will make its use for dust suppression of the spoil heaps and stockpiles easier as they are considerably closer. EDF says that this is the prime use envisaged for the water and that they only expect it to require natural filling during the winter months rains. They have also stated that water from the Water Management Zones will not be used as resource for the reservoir as that water will be allowed to percolate back into the ground naturally as it would have done were the development not to have occurred. Given the sandy nature of this area, we are concerned that dust will remain a big issue and that the reservoir will not be large enough to supply the amounts needed to suppress dust during our dry summers.

The new design of the SSSI crossing involves the creation of a much wider culvert flanked by causeway banks as before. The cross-sectional shape has changed with a gentler slope to the east and a steep slope facing Sizewell Marsh. Whilst the wide opening of the culvert uncovers some of the SSSI land, this structure, described as a bridge by EDF, is nothing like the bridge structures requested by statutory authorities and provided as options by EDF in earlier consultations and remains a causeway/culvert structure which will still have a very dark culvert that will preclude any significant growth except close to the entrances and it remains unclear if such a long dark culvert will encourage use by mammals such as otters, water vole or deer.

There remain considerable concerns that there could be significant changes to both groundwater and surface water drainage from Sizewell Marsh impacting both the unique ecology of Sizewell Marsh SSSI as well as changing the groundwater environment within the southern Minsmere Levels and potentially having knock-on effects at Minsmere Sluice.

MLSG’s response to the stage 5 consultation is available at:

<http://minsmerelevelsstakeholdersgroup.onesuffolk.net/sizewell-c/consultation-responses/stage-5-response/>

Finally, we are pleased to hear that Andrew Parker KCB has been appointed by the Queen as Baron Parker of Minsmere and the new Lord Chamberlain. He has been a visitor at Minsmere Reserve for many years and is well acquainted with the area. We welcome his appointment and look forward to his support for Minsmere and the area in the coming months and year.

<https://www.tatler.com/article/baron-parker-of-minsmere-new-lord-chamberlain-former-mi5-director-general>

In order to continue with our efforts in scrutinising EDF’s proposals and the any changes to the DCO, we ask that you consider donating to MLSG through the link below or purchase the Minsmere Levels history book by donating at least £7.50 below, including postage, and sending an e-mail to MinsmereLevelsSG@gmail.com requesting a copy and giving your address details.

