SUFFOLK COAST FORUM

SIZEWELL C COASTAL GROUP EVENT

AGENDA

Time	Item	Lead
9:30 am	Line opens	
10:00 am	Welcome & aims of the event	Cllr David Ritchie, Chairman Suffolk Coast Forum, Cabinet Member Planning & Coastal Management, East Suffolk Council
10:10 am	Officer presentations: • Sizewell C in a national planning context • Review of technical information and evidence	 Philip Ridley, Head of Planning & Coastal Management, East Suffolk Council Karen Thomas, Head of Coastal Management & Paul Patterson, Senior Coastal Engineer, Coastal Partnership East
10:40 am	Question & Answer session	Facilitated by Cllr David Ritchie
11:00 am	Explanation of workshop	Sharon Bleese, Coastal Manager (south), Coastal Partnership East
11:05 am	Break	
11:15 am	Workshop sessions	
12:00 pm	Feedback from groups	Facilitated by Karen Thomas
12:20 pm	Summary & next steps	Cllr David Ritchie
12:30 pm	Close	

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WELCOME AND AIMS OF THE EVENT

CLLR DAVID RITCHIE
CHAIRMAN, SUFFOLK COAST FORUM
CABINET MEMBER PLANNING & COASTAL MANAGEMENT, EAST SUFFOLK COUNCIL

AIMS OF THE EVENT

- Summarise the DCO Process
- Summarise the Councils' role during the DCO
- Highlight the Councils' identified key areas relating to the coast for discussion during the DCO process
- Hear from the Suffolk Coast Forum and guests of any emerging views and key areas for discussion

There will be a question and answer session and break out sessions to allow for discussion.

During the presentation please type your question into the 'chat bar' for a response in the Q&A session.

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INTERACTING DURING THE DCO PROCESS

PHILIP RIDLEY, HEAD OF PLANNING & COASTAL MANAGEMENT

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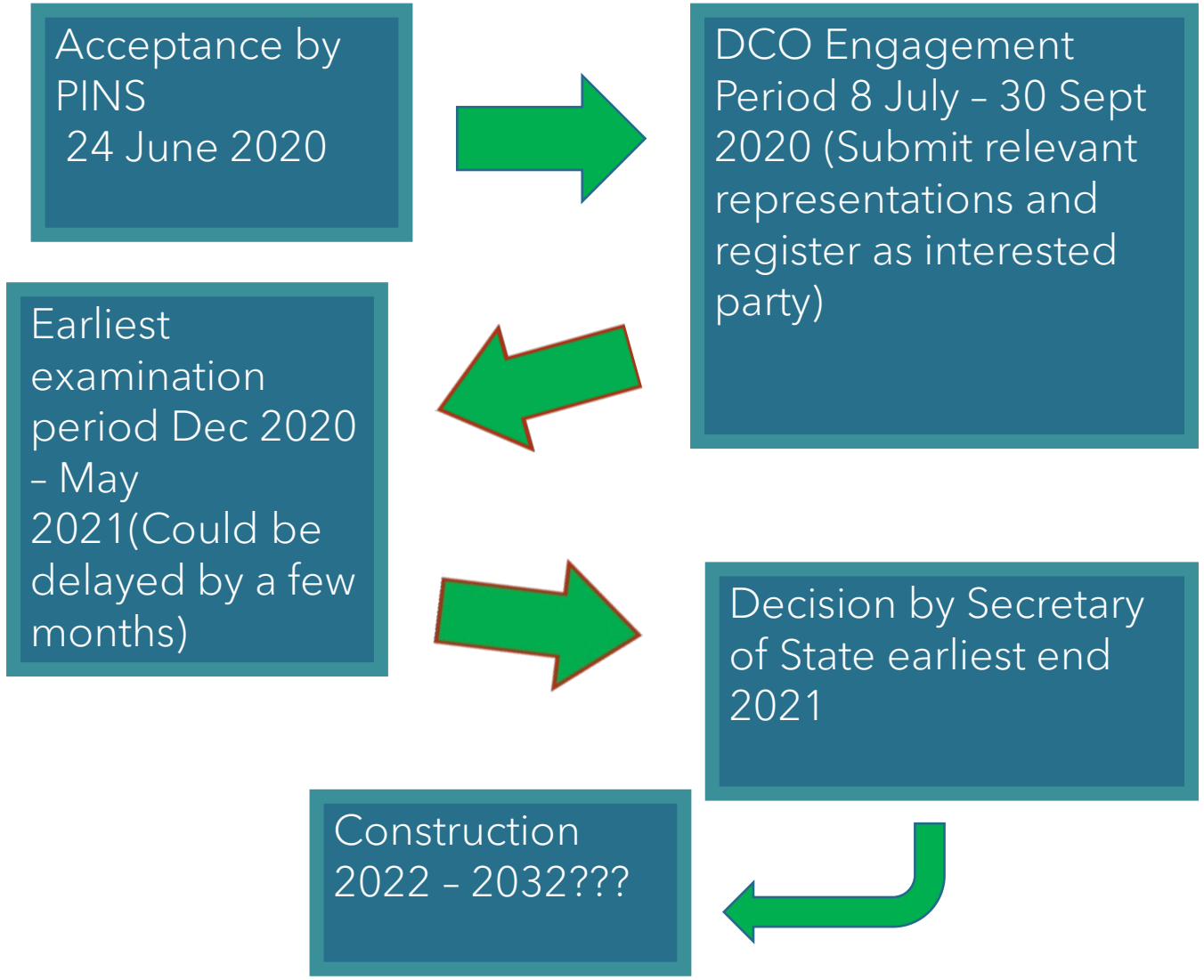
DCO PROCESS

- **Pre-examination Phase/Section 56 Engagement (8th July – 30 September):** Submit relevant representations, register as Interested Party on the PINS website, begin review of DCO submission.
- **Following Section 56:** PINS will summarise Relevant Representations received. PINS will issue a "Rule 6" letter detailing timescales for the Preliminary Meeting (which starts the 6-month Examination period). This will schedule hearing dates and deadlines throughout the Examination period.
- **EA Environmental Permit process:** 3 environmental permits have been applied to by EDF Energy in relation to Sizewell C, an engagement plan has been set out by the EA and can be found here: https://www.gov.uk/government/publications/sizewell-c-engagement-plan/environment-agencys-engagement-plan-for-sizewell-cs-environmental-permits

POTENTIAL TIMELINE



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GOVERNMENT POLICY

- Government policy is set out in National Policy Statements which give reasons for the policy and must include an explanation of how the policy takes account of government policy relating to the mitigation of, and adaption to, climate change.
- Relevant NPS include: NPS for Overarching Energy (EN-1), NPS for Electricity Networks (EN-5) and NPS for Nuclear Power (EN-6). These were designated in July 2011.
- EN-6 is in the process of being updated and some of the dates therein do not apply.
- EDF Energy reference the Sizewell C proposal under section 105 of the Planning Act 2008 (decisions in cases where no NPS has effect) but significant weight should be given to EN-1 and EN-6.
- National government still supports new nuclear as part of its energy mix and as part of its carbon reduction strategy.

THE ROLE OF THE RELEVANT STATUTORY BODIES

- Both Councils, the MMO, EA and NE are statutory consultees in the DCO process.
- All are automatically registered as Interested Parties as host authorities.
- Councils working together to draft relevant representations taking account of technical expertise within both authorities.
- Reports will be sent to ESC Full Council (3rd September) and Cabinet (21st September) and SCC Cabinet (22nd September), this is scheduled before the end of Section 56 on 30th September.
- The Councils' Cabinet Reports will be required to seek delegated authority to ensure both Councils can respond in a timely manner during the Examination process which will be fast paced with short deadlines.
- Both Councils will raise opportunities and concerns arising from the development. Part of our role is to minimise the negative impacts and secure the best outcomes for east Suffolk resulting from a consented project.

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SIZEWELL C – COASTAL IMPACTS?

"Based on the advice above it is reasonable to conclude that a nuclear power station at the site could be protected against coastal erosion, including the effects of climate change, for the lifetime of the site. Mitigation of the effects of coastal processes may be possible through appropriate design and construction of defences or the positioning of elements of the infrastructure on the site. Whilst the current inundation and erosion threat at Sizewell is relatively low this does not understate the complex potential nature of coastal processes around this site. The Environment Agency has underlined the importance of understanding the long term trends which are occurring regarding erosion at this site. This will need to include an assessment of the effects on the surrounding area." NPS EN6 Vol II of II Appendix

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REVIEW OF TECHNICAL INFORMATION AND EVIDENCE

KAREN THOMAS, HEAD OF COASTAL MANAGEMENT

PAUL PATTERSON, SENIOR COASTAL ENGINEER

COASTAL PARTNERSHIP EAST

PRESENTATION OBJECTIVES

- Describe our interpretation of **EDF's** forecast of how SZC might affect the coastal environment
- Describe our understanding of the effectiveness of EDF's proposed mitigation on any negative effects from the development
- Set out **ESC's** view of EDF's impact assessment and identify points of significant difference
- Highlight what we would expect EDF to do to comply with ESC proposals to bring about a favourable outcome
- Seeking your views on our presentation to inform our ESC response

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SETTING THE CONTEXT OF THIS DEVELOPMENT IN THE SUFFOLK COASTAL ZONE

- The proposed SZC development will exist until at least **2130**
- Within the next century Suffolk's coast **will undergo major changes with** *or* **without SZC**
- Based on the current SMP- **Shoreline retreat between 10 - 97m is predicted by 2105**
- **Sea level rise between 0.5 - 0.9m is predicted by 2105**
- UKCCRA (2017) "**changes in extreme weather conditions that will impact on infrastructure, through storm damage, flooding and high temperatures**" posing significant resilience issues to any future development
- The Suffolk SMP requires us to ensure a continuation of natural change and **preserve a naturally functioning coast**
- **SZC has potential to interrupt the processes that drive natural change**, and hence to influence the natural coastal landscape and it's amenity value

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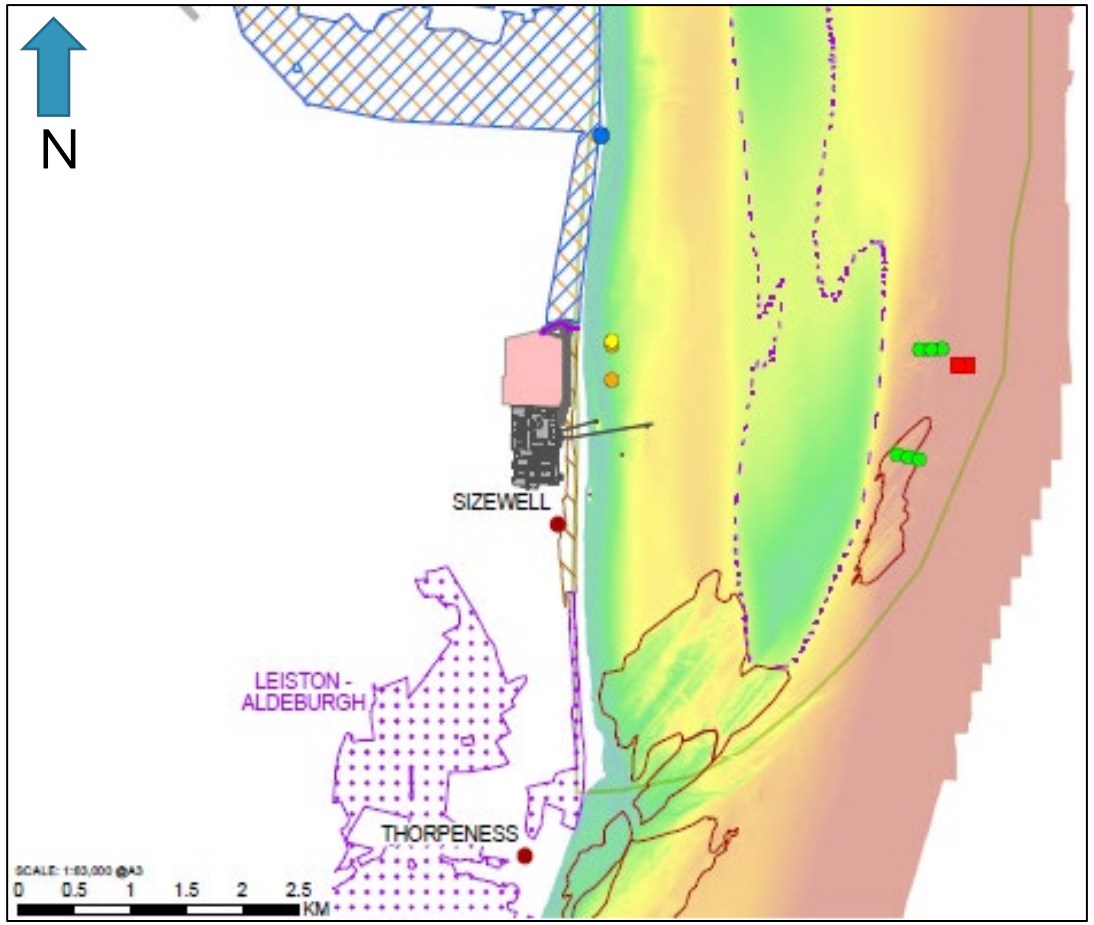
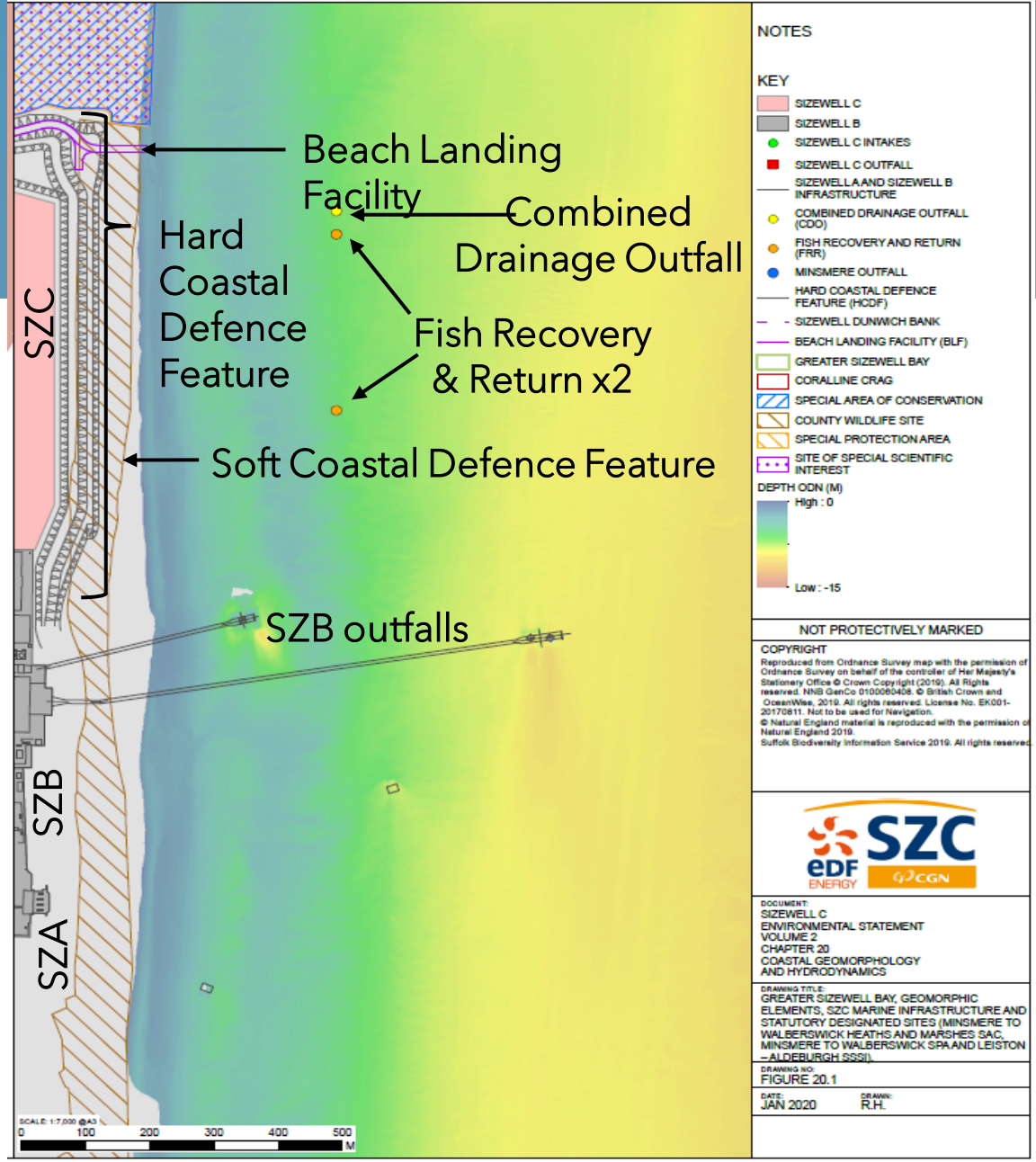
SZC SITE PLAN





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KEY ISSUES

- Impact Assessment Summary Timeline
- Incomplete Design of Works
- Impact of the HCDF
- Impact of the BLF
- Performance of the SCDF
- Future Shoreline Predictions
- Impacts to Thorpeness Shoreline
- Coastal Impact Monitoring
- Coastal Impact Mitigation

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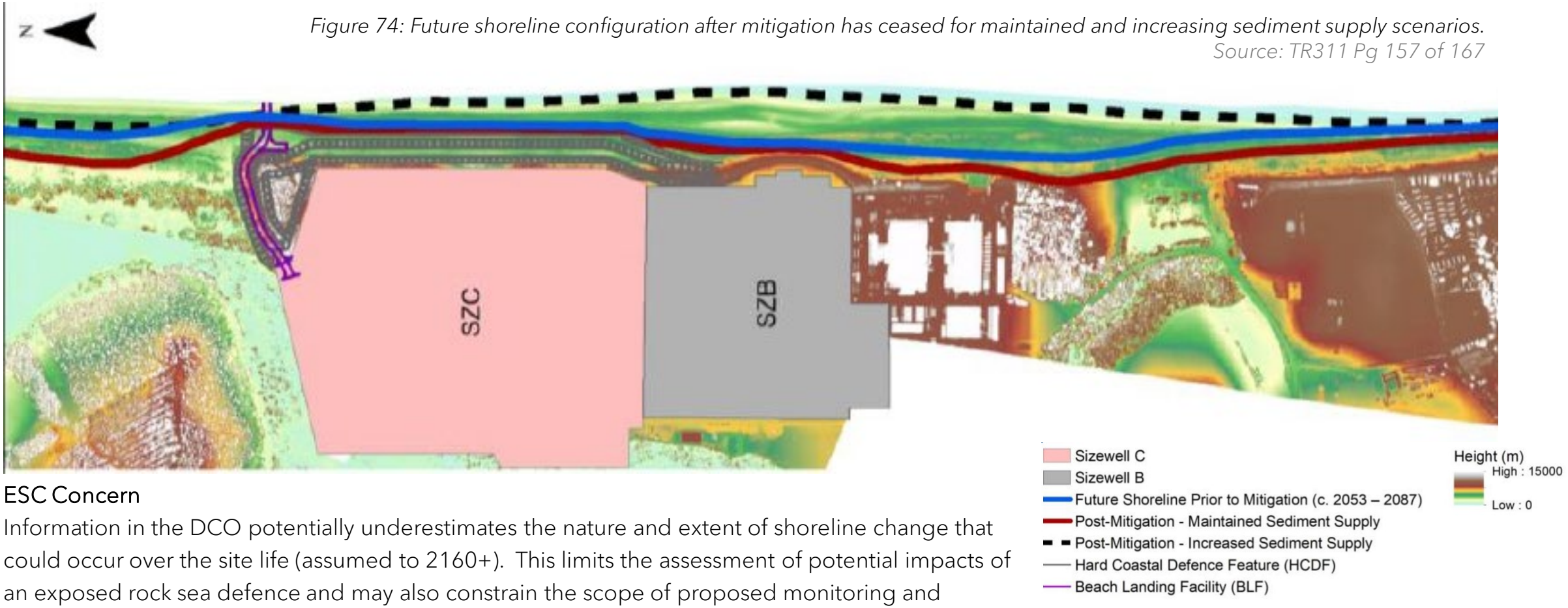
KEY ISSUES
IMPACT ASSESSMENT SUMMARY TIMELINE

Date	Activity	Main defence vs shoreline
2022	Construction starts	Defence is landward of active shoreline. Low risk of negative effects.
2035	Construction ends	Defence is probably landward of active shoreline over majority of site frontage. SCDF is in place as mitigation.
2050	Operation phase	Active shoreline has potentially exposed part of the defence. Natural sediment movement may be effected. Mitigation by SCDF is probably effective.
2080	Operation phase	Active shoreline has probably exposed much of the defence. Natural sediment movement is probably effected. Mitigation by nourishment / bypassing has replaced SCDF.
2100	Operation phase ends	Active shoreline has probably exposed most / all of the defence. Impacts of the site on sediment movement are uncertain.
2130	Decommissioning ends	Active shoreline has probably retreated landward of the defence. Impacts of the site on sediment movement are uncertain. Compensation may be provided for any residual impact. The rock defence is not removed unless required by the Decomm. EIA.
2160	Spent Fuel Store closed.	Rock defence is probably fully exposed.

ESC KEY ISSUE #1
FUTURE SHORELINE PREDICTIONS

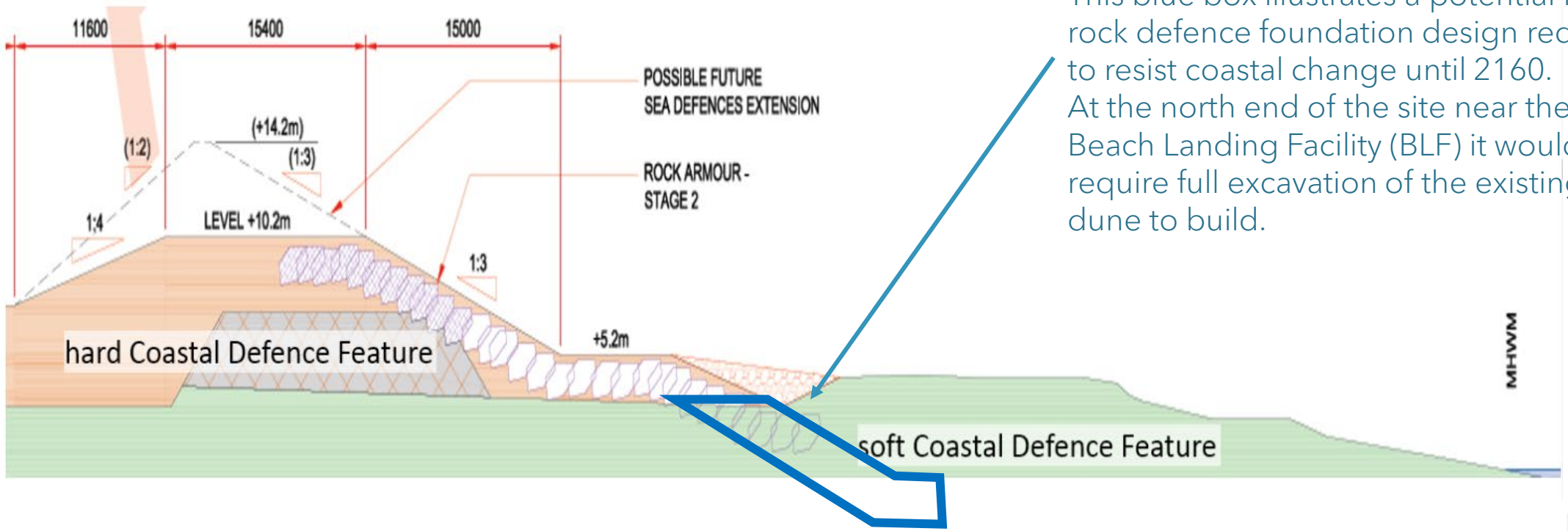
Figure 74: Future shoreline configuration after mitigation has ceased for maintained and increasing sediment supply scenarios.
Source: TR311 Pg 157 of 167



ESC Concern

Information in the DCO potentially underestimates the nature and extent of shoreline change that could occur over the site life (assumed to 2160+). This limits the assessment of potential impacts of an exposed rock sea defence and may also constrain the scope of proposed monitoring and mitigation (M&M) actions required to respond to it.

ESC KEY ISSUE #2
INCOMPLETE DESIGN OF WORKS



This blue box illustrates a potential final rock defence foundation design required to resist coastal change until 2160.
At the north end of the site near the Beach Landing Facility (BLF) it would require full excavation of the existing 5m dune to build.

Figure 29 Cross-section of the hybrid coastal defences at Sizewell C. Note that this drawing is indicative and does not include the correct foundation depths.

Source: Figure 29 in TR311 Sizewell MSR1 Ed 4 Page 63 of 167.

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ESC KEY ISSUE #3
PERFORMANCE OF THE SCDF

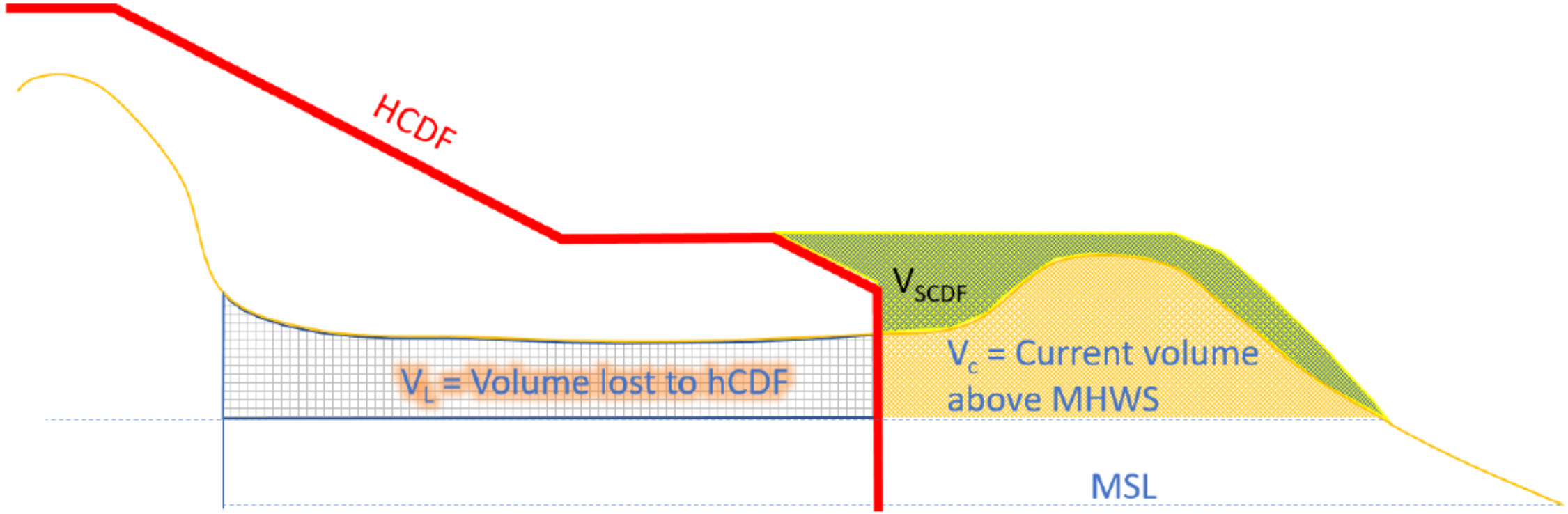

Figure 73: Cross-sectional schematic showing the lost and gained sediment for future beach erosion due to the HCDF.

Image source: TR311 page 151 of 167

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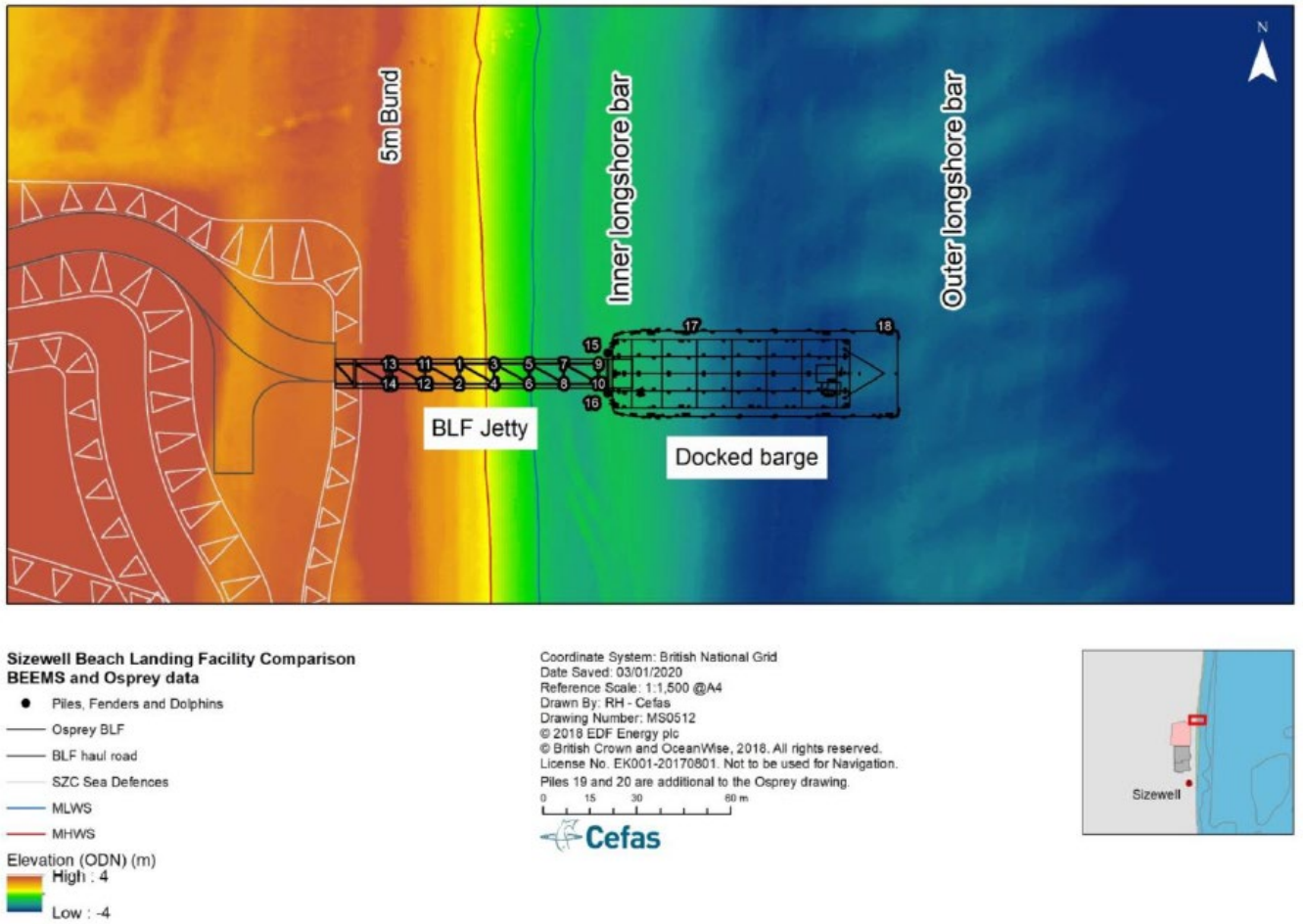
WHAT IS THE BEACH LANDING FACILITY (BLF) ?

TR311 figure 30: beach landing facility (BLF) deck, fenders (labelled 15 and 16) and dolphins (labelled 17 and 18) shown together with a docked barge. Page 63



The BLF would be 176 m long (from HCDF to seaward dolphin).

It would consist of an 85 m long piled deck plus additional 11 m of fenders and ramp. The last 36.5 m of the BLF deck would be seaward of MHWS, and mooring dolphins would be positioned at approx 66 m and 128 m from MHWS. Additionally, the BLF would consist of mooring dolphins (2, north side), fenders (2) and a piled deck that would connect to the HCDF and the abutment terminating at the AIL haul road (c. 5.2 m ODN).

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ESC KEY ISSUE #4
IMPACT OF THE BEACH LANDING FACILITY

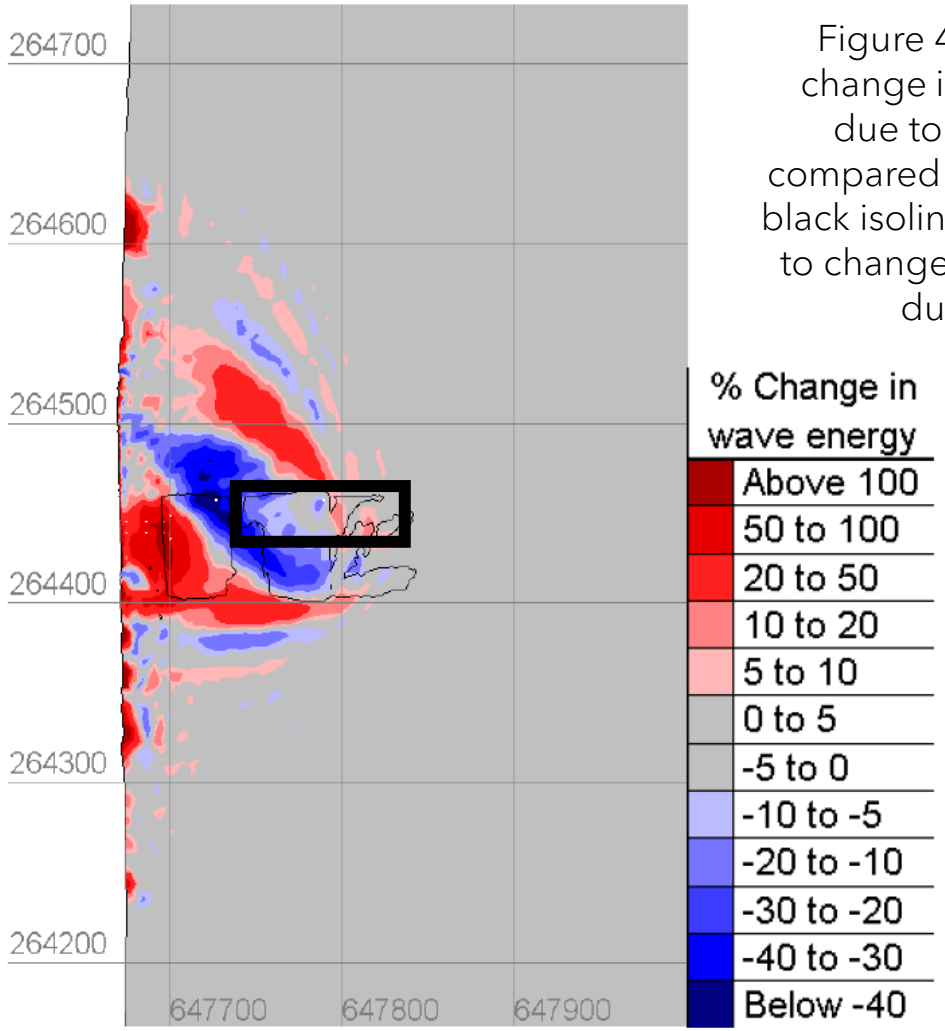

Figure 43: Percentage change in wave energy due to the BLF in use compared to no BLF. The black isoline corresponds to change in bathymetry due to dredging.

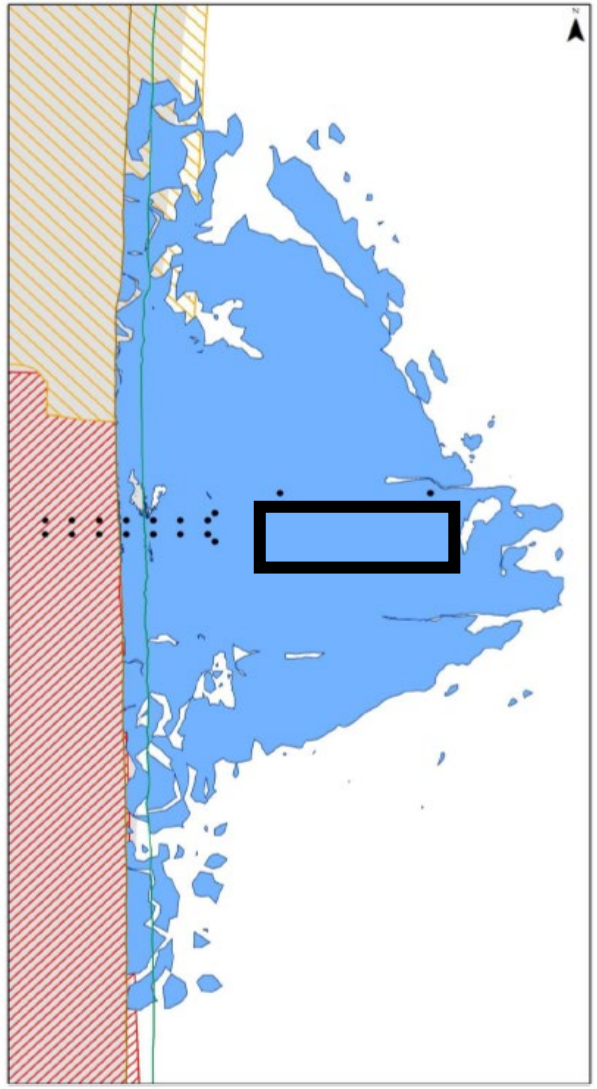

Figure 45: The total area corresponding to a magnitude of change greater than ± 5% for the BLF in use compared to no BLF, for both wave and tidal current directions.

Sizewell Percentage change in bed shear stress (BLF-dredged compared to no-BLF): SE plus NE waves, ebb plus flood, present sea level.

- BLF piles
- Ebb Scenario Shoreline (-0.57m)
- Flood Scenario Shoreline (0.71m)
- Area corresponding to bed shear stress >5% and <-5%.
- SPA - Minsmere-Walberswick
- SZC Main Development Site

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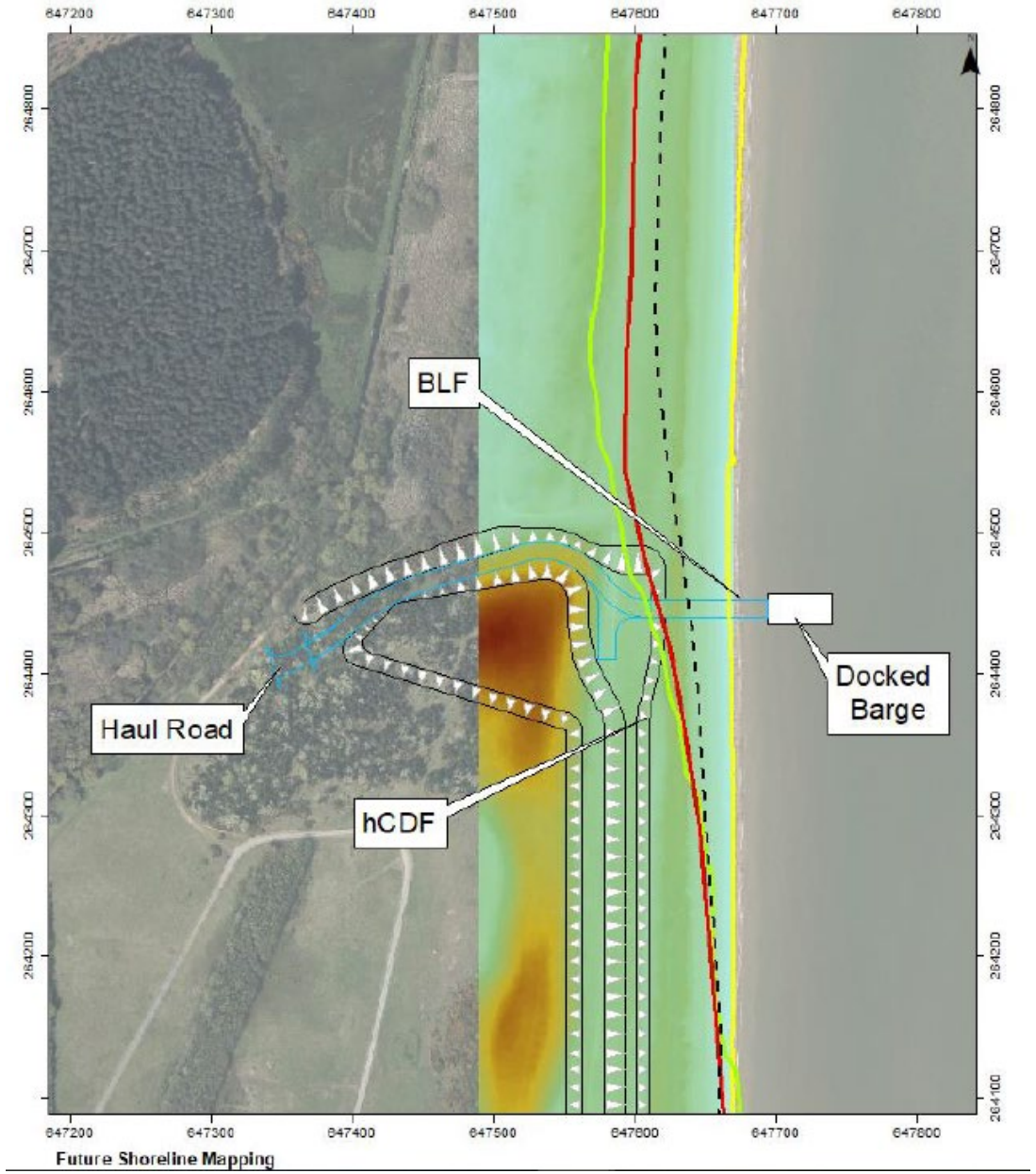
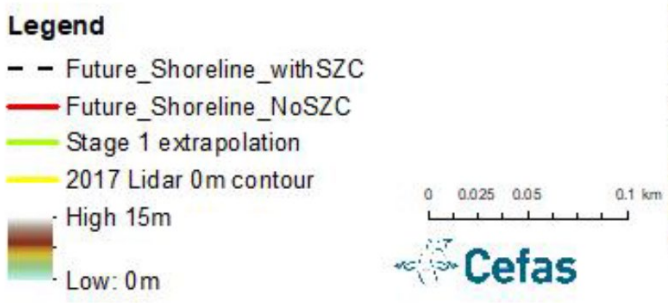
ESC KEY ISSUE #5

IMPACT OF THE HCDF





At this approximate time scale (2053 - 2087), exposure is used as the worst-case scenario.

With no mitigation & on a longer timescale, exposure is inevitable due to rising sea levels. TR311 pg 141

Figure 68. **Projected shorelines with and without Sizewell C, showing the expected exposure of the HCDF** (white hatching indicates sloped surfaces) and constraints on the shoreline position just north of the development site. The existing 'mound' of high ground at this location (the Sizewell Bent Hills) would have a similar bounding effect on the beach roll-back without Sizewell C. The black dashed line is the EGA future shoreline with Sizewell C. Source TR311 Pg 140 of 167.

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ESC KEY ISSUE #6 COASTAL IMPACTS MONITORING

- Why a Monitoring and Mitigation Plan (MMP)?
- Marine Technical Forum – Purpose and membership.
- Enforcement of M&MP obligations by MMO via a Marine Licence.
- MMP first draft content is encouraging.
- ESC influence in the MMP change control process is critical.
- ESC concerns include the suggested cessation at ~ 2100.
- ESC aims for the MTF process to be transparent and accountable.
- ESC aim to ensure that EDF's obligations are set in robust legal terms.
- EDF must be required to fully fund the MMP process.

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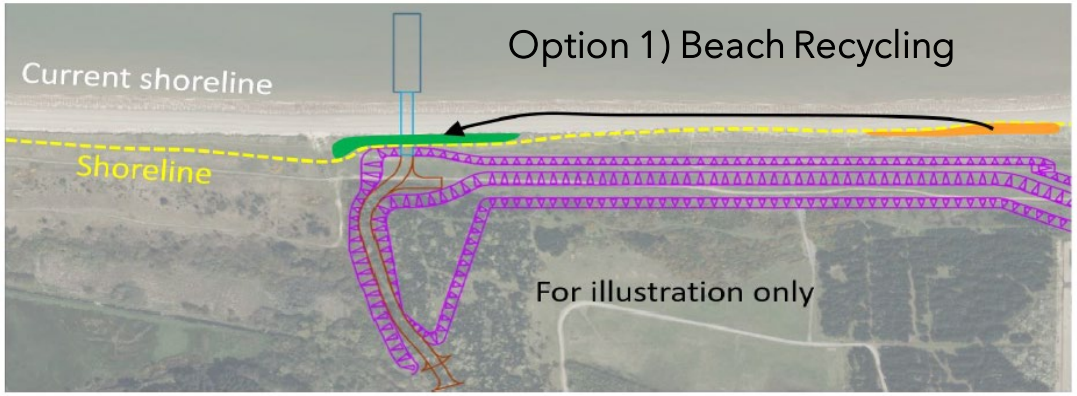
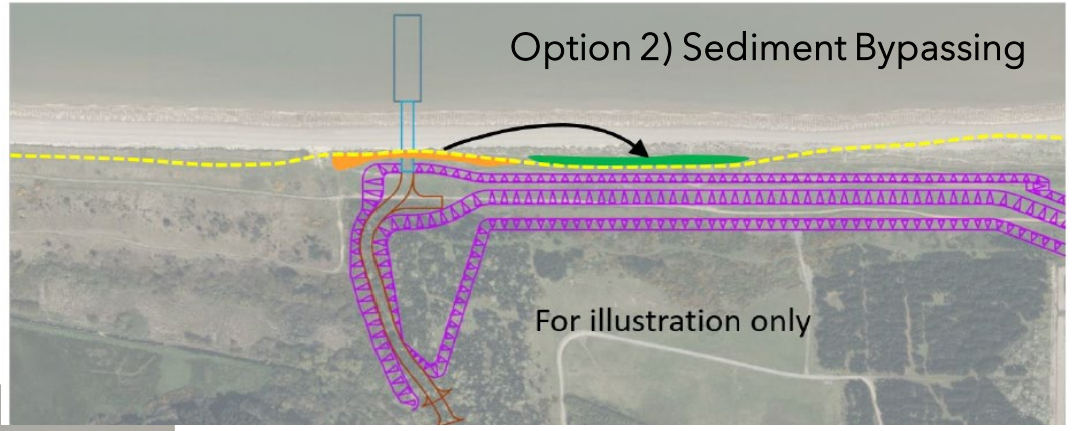
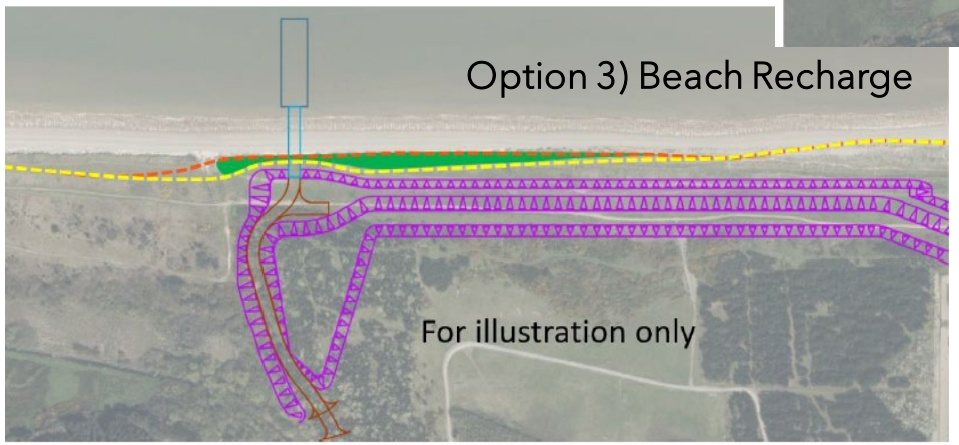
ESC KEY ISSUE #7

COASTAL IMPACTS MITIGATION

Figure 71: Schematics showing examples of depleted beach sections and the likely mitigation methods. The examples assume a net southerly (left to right) longshore drift, but the same principles can be applied in the unlikely event of any persistent reversal in the net transport direction. Source: TR311 Page 146 of 167







ESC have concerns about the potential cessation of mitigation around 2100 that raises an unhelpful expectation.

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CUMULATIVE IMPACTS

NOT A KEY ISSUE FOR COASTAL MANAGEMENT

- This combination of SZC & third party activities could possibly lead to a **short-term and localised cumulative impacts** but the inter-relationship effects would remain the same as for Sizewell C alone, i.e. **negligible & not significant.**

- During the operation of Sizewell C Project, there are no expected cumulative effects on coastal geomorphology and hydrodynamics as the third party schemes currently proposed & assessed will be operational.

- Source: Volume 10 Chapter 4 Cumulative Effects with Other Plans, Projects and Programmes; 4.14.12; pages 114-115.

Table 23: 3rd party plans – programmes – projects within the ZoI for coastal geomorphology

Project, plan or programme	Location	Timeline
Scottish Power Renewables onshore and offshore facilities for East Anglia One North and East Anglia Two (Tier 3), comprising: Onshore: • two substations (total 20-30ha) • one National Grid compound • temporary construction compound Offshore: • cables to connect to offshore windfarm	Onshore facilities: Friston area or Sizewell Gap (in close proximity to existing Galloper substation) – final decision on location in 2019.	Construction commencing 2024 Operational late 2027.
National Grid interconnectors (Tier 3), comprising: Onshore: • converter stations (to 5ha) • cable landfalls of 200m width Offshore: • 'Nautilus' interconnector cables • Eurolink' interconnector cables	Location to be identified by 2020 (Eurolink) and 2022 (Nautilus).	Construction periods of 2023-2024 (Eurolink) and 2025 - 2027 (Nautilus). Both interconnectors operational at end of 2027.
Shoreline Management Plan (SMP) 7 (dated 2010) Lowestoft Ness to Felixstowe Landguard Point	Suffolk SMP2 Sub-cell 3c Policy Development Zone 4. Dunwich Cliffs to Thorpeness.	Full list of the SMPs for the ZoI can be found in Table 4.
Royal Society for the Protection of Birds (RSPB) Minsmere coastal change strategy.	Minsmere frontage (four named units within the SMP).	Managed realignment of shoreline over 0-100 years, although large scale realignment not anticipated for 50-100 years.

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ESC KEY ISSUE #8 MONITORING AT THORPENESS

ESC require an extension to the scope of EDF's proposed monitoring remit to include the cliffed frontage at Thorpeness'; currently outside the proposed zone of influence (ZoI).

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ESC KEY ISSUE #9

MANAGEMENT OF MINSMERE

TR311 Section 7.4 Future shoreline with Sizewell C (2053 – 2087)

Initial exposure of the HCDF could potentially cause erosion of the Minsmere to Walberswick Heaths and Marshes SAC and Minsmere to Walberswick SPA, and would introduce elements and processes not naturally present.

This section concludes that, as a result of a period of potential erosion to the SAC/SPA, Additional Mitigation would be warranted to prevent the HCDF exposure and thereby retain a shingle beach frontage and longshore sediment transport continuity to minimise the impact of the HCDF on longshore transport and erosion. (Pg 137 of 167)

The shoreline retreat over the northern SZC frontage would be reduced by several tens of metres over a number of decades. As well as slowing erosion rates, the presence of Sizewell C's coastal defence features could lead to restoration of the formerly destroyed supra-tidal 'annual vegetation of drift lines' habitat (Minsmere to Walberswick Heaths and Marshes SAC) and potential nesting sites for little tern (Sterna albifrons) (Minsmere to Walberswick SPA) just north of Sizewell C.

It would also mean that the shoreline would not retreat back to the SSSI crossing over this timescale (Pg 141 of 167).

ESC Concern:
Erosion over the southern Minsmere frontage is predicted to be reduced by the presence of SZC, to below the natural `No SZC' condition as the exposed HCDF will block the pathway for material to move south.

The benefit at Minsmere could be a loss elsewhere.

Moving beach material from North to South, is likely to be required to sustain natural coastal change but could be blocked by the development.

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OUR TOP TWO RECOMMENDATIONS

IF SZC is granted permission to be developed, CPE on behalf of ESC and the local communities would wish to make the following two key recommendations;

- ESC need to insist on the removal of the HCDF when SZC is decommissioned
  - This negates the long term impacts it could cause to our coast
  - Alternative provision to protect remaining infrastructure should be made inland.

- Ensure a strong governance structure to the Marine Technical Forum with formal legal standing.
  - This group will be effectively deciding whether monitoring and mitigation is working and agreeing when trigger points are reached and mitigation is required. This group would also flag if any measures are NOT working and seek due recourse.
  - This is based on lessons learnt from GYOH and Harwich haven Mon/Mitigation Plan.

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QUESTION & ANSWER SESSION

FACILITATED BY CLLR DAVID RITCHIE

EXPLANATION OF WORKSHOP

SHARON BLEESE
COASTAL MANAGER (SOUTH)
COASTAL PARTNERSHIP EAST

WORKSHOP SESSIONS

FEEDBACK FROM GROUPS

FACILITATED BY KAREN THOMAS

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SUMMARY & NEXT STEPS

CLLR DAVID RITCHIE

- A summary of this event and discussions will be circulated to all attendees along with the presentation;
- Register as an Interested Party and submit your Relevant Representation BY 30 SEPTEMBER 2020;
- Please copy your relevant representation to sizewellc@eastsuffolk.gov.uk;
- All updates to the process will be on the Planning Inspectorate web pages at: *https://infrastructure.planninginspectorate.gov.uk/projects/Eastern/The-Sizewell-C-Project/*
- Council published documents such as our Relevant Representation and Cabinet reports will be available on our official Council JLAG pages: *https://www.eastsuffolk.gov.uk/planning/sizewell-nuclear-power-station/development-consent-order/* WE WILL NOT BE PUBLISHING EDF ENERGY'S DCO DOCUMENTS ON THIS PAGE. They are available on the PINS web pages and at *https://sizewellcdco.co.uk/*

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CLOSE

THANK YOU FOR ATTENDING

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