

East Suffolk Council's Relevant Representation

Relevant Representation of East Suffolk Council under section 56 of the Planning Act 2008 in respect of the Sizewell C new nuclear power station application.

Summary

1. East Suffolk Council (ESC / the Council) has long supported the principle of a new nuclear power station at Sizewell, and the existing power stations on the east Suffolk coast – Sizewell A (decommissioning stage) and Sizewell B (operational). Since the publication of National Policy Statements EN-1 and EN-6 (2011), this Council has accepted the identification at Sizewell of a location for a third nuclear power station. Accepting that it is Government policy for new nuclear, ESC is keen to work with Government and with the new nuclear provider to ensure that any new nuclear development on the east Suffolk coast brings benefits to the district.
2. In addition, ESC recognizes that as well as being an important contributor to the national energy strategy, Sizewell C has the potential to bring additional benefits to east Suffolk regarding jobs, skills and potential legacy benefits in these areas and others by encouraging appropriate mitigation in relation to the project.
3. ESC has a number of concerns with regards the details of the Sizewell C proposal, and will use this submission to highlight the key areas of concerns where there are outstanding questions to be answered by SZC Co. during this process, and where there is a requirement for additional mitigation and compensation to be forthcoming in order to address or seek to address our concerns.
4. ESC has a number of areas where it supports SZC Co. proposals, this includes the provision of off-site sports facilities at Leiston Sports and Leisure Centre / Alde Valley Academy, the relocation of facilities in relation to Sizewell B, subject to some minor amendments detailed in this submission. We are appreciative that SZC Co. have an alternative to using the B1122 for all HGV movements and we welcome the opportunities this brings for downgrading the existing B1122 and promoting it for cycle use. We support the onsite accommodation campus and the benefits this will bring in releasing pressure on the existing private rented sector in East Suffolk.
5. ESC has a large number of positive comments in relation to the proposed design principles that have been submitted in relation to the project, these will not all be included in this document but will be shared with SZC Co. as they contain useful detail

on how best to consult us and use our expertise should the design of the development progress to construction with a positive outcome for the DCO.

6. ESC supports the principle of mitigation / compensation funds in relation to Tourism, Housing, Skills and Education, Transport, Education provision, Community Safety, Emergency Services, Health etc. subject to the Funds being robust enough to mitigate and compensate for impacts arising from the project. In addition, an overall contribution of £149,912 to the Suffolk Coast RAMS is considered appropriate in order to help mitigate the in-combination recreational disturbance impacts that are considered likely to arise from the accommodation campus element of the construction of Sizewell C.
7. ESC, working with SCC and other partners has previously published and shared with SZC Co. our principles papers in relation to the Sizewell C project (<https://www.eastsuffolk.gov.uk/planning/sizewell-nuclear-power-station/sizewell-c-ecology-access-design-estate-and-skills-principles/>), these papers cover: Economic development, skills, education and employment, Design Principles, Principles for management of the Sizewell estate, Suffolk ecology principles and Suffolk access principles. We expect SZC Co. to accommodate the principles throughout their DCO.
8. ESC, as the Authority with powers of enforcement, will expect to take the lead in the majority of the Requirements proposed for discharging, in consultation with other statutory and non-statutory bodies. The exception to this is in relation to Requirements solely relating to Highway Authority issues, which ESC is content for Suffolk County Council as Highway Authority to take the lead on the proviso they include ESC in the consultation process.
9. As such, ESC, takes a neutral approach to the Sizewell C proposal, neither fully supportive nor against the proposals. There are too many outstanding issues at this stage to enable us to commit further. By highlighting these issues in this submission, we aim for SZC Co. to seek to address these issues, if possible, through the remainder of the DCO process.

THIS SECTION WILL BE EXPANDED

Detail on the areas of concern

1.1 Where appropriate we have included comments under the specific topic areas used in SZC Co. documents. However, for some subject areas the comments are general across the whole development, therefore where appropriate these have been included here to avoid duplication.

Noise

General

1.2 The main point to take from these comments is that the submission documents have identified adverse and significant adverse impacts in relation to noise across the range of areas discussed below. There are a range of adverse and significant adverse impacts that have been assessed by SZC Co. that will affect a wide range of sensitive receptors both around the development and across the wider district.

1.3 Whilst accepting that SZC Co. have identified some impacts as adverse and significant adverse and assessing the actions required we are also in the process of determining whether the assessments have correctly estimated (in that they have not underestimated) the impacts on those receptors that have been identified as having low or negligible impacts.

1.4 SZC Co. are relying on setting noise limits for different activities as the parameters for the assessment of impact against the No Observable Effect Level (NOEL) Lowest Observable Adverse Effect Level (LOAEL) and Significant Observable Adverse Effect Level (SOAEL) principle as set out in the Noise Policy Statement for England (NPSE) and described below;

1.5 *NOEL* – No Observed Effect Level

This is the level below which no effect can be detected. The noise can be heard but does not cause any change in behaviour, attitude, or other physiological response. It can slightly affect the character of the area but not such that there is a change in the quality of life. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

At this level we would expect no specific measures to address noise.

SZC Co. have termed this parameter “below LOAEL” but it is understood to equate to the principles of NOEL.

1.6 *LOAEL* – Lowest Observed Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected. Noise can be heard and causes small changes in behaviour or other physiological response, e.g. turning up the volume of television, speaking more loudly, having to close windows because of the noise. There is a potential for some reported sleep disturbance at these levels and the noise affects the acoustic character of the area such that there is a small actual or perceived change in quality of life.

At this level there is an expectation that the noise will be mitigated and reduced to a minimum.

SZC Co. have termed this parameter between LOAEL and SOAEL but it is understood to equate to the principle of LOAEL.

1.7 SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur. The noise causes a material change in behaviour, attitude or other physiological response e.g. avoiding certain activities during periods of intrusion, having to keep windows closed most of the time because of noise, potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty getting back to sleep. Quality of life is diminished due to change in acoustic character of the area.

At this level there is an expectation of avoidance.

SZC Co. have termed this parameter above SOAEL but it is understood to equate to the principle of SOAEL.

1.8 The choice of LOAEL and SOAEL will need to be robustly justified where it is not supported by national guidance or best practice documents. SZC Co. have assessed sensitive properties and assigned an Observable Effect Level category to them as a basis for impact. This is a sensible approach based on national guidance and will provide a framework for future monitoring and a basis for the provision of mitigation.

1.9 However due to the duration and wide ranging (both in activity and geography) nature of this project ESC is concerned that relying simply on fixed limits can underestimate the impact on receptors especially as the mitigation available relies on this assessment. It may be that some contextual subjectivity is required in certain situations to clarify the impact.

1.10 What will be key going forward into this process is ensuring that the identified impacts can be adequately avoided or mitigated, that impacts have not been underestimated where they have been estimated to be below LOAEL or between LOAEL and SOAEL and that unidentified impacts can be considered at a later stage.

1.11 There is an issue of uncertainty in the assessments which must be addressed, SZC Co. have accepted this uncertainty in their reports and it is to be expected in a project of this size and addressed under the principle of the Rochdale Envelope. Uncertainty is an issue where it might cause the assessment of impact to be underestimated through being informed by too little information or too much assumption. The Rochdale Envelope assessment approach is an acknowledged way of assessing a Proposed Development comprising EIA where uncertainty exists, and necessary flexibility is sought. However, case law has established that the need for flexibility should not be abused and further justification will be sought to this effect.

- 1.12 There will also be a reciprocal expectation and requirement for flexibility on the part of SZC Co. in terms of further assessment and mitigation to take account of any underestimation in impact and the need to address it in the future.
- 1.13 The assessment of impact has thus far been based on sound modelling, data from field assessment of background noise and theoretical data of noise sources. There will need to be a requirement for ongoing revisiting of assessments to take account of uncertainty and new information and of monitoring in future to ensure the soundness of the current predictions to ensure adequate protection can be provided. This continuous approach will be key to addressing the significant noise implications of this large, complex and dispersed project.

Construction

- 1.14 There have been a variety of adverse effects predicted, some between the suggested LOAEL and SOAEL, some exceeding the suggested SOAEL. With a project of this magnitude we are going to have to accept that adverse effects will be likely to occur if it is consented and so much of the focus will be on ensuring that impacts have not been underestimated, that there are robust procedures to monitor those impacts and that where there are impacts the mitigation and compensation structure is such that they are reduced as much as possible for those effected.
- 1.15 The issue of adverse noise impact effects the Main Development site and associated development sites to varying degrees however it is at the Main Development Site that the issues are likely to be most significant and complex due to the scale and duration of the construction. That said the need to secure adequate levels of mitigation are common across all phases of the project. SZC Co. have committed to a variety of mitigation and compensation options however further justification may be required to ensure the suitability and effectiveness of those options.
- 1.16 As a project wide issue SZC Co. have noted a certain amount of uncertainty in their impact assessment which in terms of construction noise is related to unappointed contractors, unknown plant types, location of activities, duration of activities and construction methods at present. Ultimately, there is the likelihood of variability over the project to what has been currently assessed and this needs to be dealt with in the Code of Construction Practice, Construction Management Plan and Noise Management Plan.
- 1.17 The assessment of construction noise does not appear to consider the effect on the general amenity of the area which will be considered with regards to the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and tourism impacts.
- 1.18 ESC is currently concerned that some impacts may be unknown, underestimated or that mitigation may not be possible to the degree desired during construction and these will be subject of ongoing discussion as the process continues.

Rail Noise

- 1.19 An area of particular concern centres around rail freight traffic, it has now been confirmed that much of the freight movements in and out of the LEEIE and along the green route when built are at night and that freight will be unloaded and handled overnight as well. There are the obvious effects on Leiston as the hub of this activity but also as previously discussed the movement of significant rail freight along the line throughout the whole of our District at sensitive times of the day and the requirement for holding points has the potential for very widespread disruption.
- 1.20 There appears to be a suggestion in the reports that the number of trains is low however it is considered that the introduction of nightly freight movements along the line across the District associated with this development represents a significant increase to the impact from the rail line to what is currently there, those impacts occurring predominantly at a sensitive time when people are sleeping and in areas where the background noise levels are extremely low.
- 1.21 SZC Co. have suggested another LOAEL/SOAEL approach which in principle is acceptable, however there are concerns that the limits chosen are not protective enough.
- 1.22 Based on the SZC Co. assessment there are 40-50 properties where noise levels will exceed the SOAEL based on L_{Amax} levels. This Council has serious concerns that impact may be being underestimated in a number of areas and that the suggested mitigation of using the “quietest trains possible”, speed restrictions and changes to operational practices on the line, will require significantly more justification in order to demonstrate that SZC Co. can reduce the impact sufficiently. This Council is also concerned that some effects may not be able to be mitigated and will require justification and evidence that they can.
- 1.23 Based on the SZC Co. assessment there are approximately 600 dwellings in proximity to the rail route through the District that will have noise levels exceeding the LOAEL based on L_{Amax} levels. This raises concerns that impact may be being underestimated in a number of areas and that the suggested mitigation of using the “quietest trains possible”, speed restrictions and changes to operational practices on the line, will require significantly more justification and evidence that they can reduce the impact sufficiently. As this determination is based on modelling we would also require some commitment to ensure that assessments will be revisited in future to ensure that mitigation is working and that none of these properties breach the SOAEL and require higher level mitigation. An appropriate monitoring regime will be required.
- 1.24 SZC Co. reports also state that assessment is still ongoing and further assessment is required in some instances, Although the purpose of this is to inform improvements in noise level particularly at the SOAEL until this is complete, it is not clear how the whole picture in terms of impact can be presented accurately and significant concerns remain.
- 1.25 Due to the night movement of freight trains the necessity to unload and further handle the freight from those trains has been identified. This Council has concerns, particularly in the years when this activity will be undertaken at the LEEIE, that the impact of this may have been underestimated and will require further justification surrounding this activity

in terms of the noise impact on Leiston and surrounding residential dwellings. This will require an appropriate monitoring regime.

- 1.26 Overall, this Council is concerned that the night movement of freight trains and the associated activities including unloading and materials handling represent a significant impact and one that we are not currently convinced can be fully mitigated.

Operational Noise

- 1.27 Due to the location of the development and the current use of adjacent sites, operational noise from the station will not be out of character for the area, most of the assessed properties have shown a low or negligible adverse impact however there are some properties that have been identified as having a medium or high impact.
- 1.28 Our concern is the significance of the adverse impact has been mitigated by using a contextual argument of which we are not currently convinced by and may require further justification and evidence.
- 1.29 There is potential for there to be some adverse impact to residential properties during the operational phase of the station which is a considerable period of time, it is the Council's opinion that there will need to be further assessment in the future and where a significant impact is found to exist a scheme of mitigation should be made available to the properties effected. This is backed up by further inherent uncertainty in the assessment methods which although seemingly conservative may underestimate impact due to that uncertainty. A proper longer term monitoring and potential mitigation regime / commitment may be required.
- 1.30 The assessment of operational noise does not appear to consider the effect on the general amenity of the area which will be considered with regards to the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and tourism impacts.
- 1.31 Overall, this Council is concerned that some impacts may have not been adequately justified and that there is not a facility for future mitigation in the event a significant impact occurs.

Mitigation

- 1.32 The mitigation and compensation scheme appears comprehensive for the construction phase and there is an acceptance that mitigation will be required for certain properties. The detail of this will need to be explored further.
- 1.33 Currently the mitigation scheme relies on the assessments to date which underlines the importance of our confidence in their accuracy. SZC Co. has stated further assessment will be undertaken once some of the uncertainties are known and this will be used to update the mitigation and compensation scheme in terms of eligible properties and this is welcomed and we look forward to reviewing future assessments.
- 1.34 However, given that it is likely there will be a level of impact that must be accepted and that the assessments, however accurate, may underestimate an impact,

methodologies may change or other properties may be effected there must be an acceptance that the assessment for this scheme is an ongoing matter for monitoring purposes.

1.35 A dynamic assessment, monitoring, and mitigation scheme is likely to be one of the most effective ways of addressing impact in this case and may be the last line of defence for some residents. This Council does not consider it unreasonable that in situations where an unforeseen or previously underestimated impact is found to occur at a later date during construction or operation that the scheme is available for those effected once that impact has been properly assessed and identified.

1.36 In terms of physical mitigation SZC Co. appear to be considering a large number of options but we will need to ensure that in each case that it is the most appropriate. Again, we would suggest a dynamic approach is appropriate as above so there is scope for the chosen option for any given situation to change or be improved as required. The Code of Construction Practice, Construction Management Plan, Noise Management Plan, and other associated documents are likely to be key here, but we will need SZC Co. commitment to this going forward.

1.37 Overall, the mitigation scheme appears to provide a degree of protection, but this Council considers it should be more flexible and extensive given the nature of the potential impact.

Noise conclusion in summary

1.38 There are a number of significant adverse impacts predicted along with a level of uncertainty in the assessment that will need to be considered further before we can have confidence that noise has been adequately addressed.

1.39 A flexible and comprehensive scheme of ongoing assessment, monitoring and mitigation is likely to be key to minimising the noise impact of a development of this nature and we will be seeking assurances to this effect, particularly if there is an expectation of flexibility on our part.

1.40 It is likely the DCO will contain a requirement that “exempts” the developer from action under Section 79 of the Environmental Protection Act 1990 (Statutory Nuisance) as is usual in these cases. However, due to the nature, size and duration of this development it is likely to cause complaint and there is an expectation that there will be cooperation with the Environmental Protection Team at East Suffolk Council in finding a resolution where these inevitable complaints are received and found to have merit. We will be seeking an assurance within the relevant documents to this effect and that a robust complaint management procedure is developed to support it.

1.41 The majority of the noise information was only provided to us in the DCO submission documents with little prior discussion or provision in the consultation process. It is anticipated that we will now be discussing several areas at length with a view to securing further clarification and/or changes to the approach in some areas.

1.42 However it is likely that a project of this scale and magnitude will have noise impacts that will not be able to be reasonably addressed and those impacts will be present at varying degrees over the life of the project and this will need to be considered in the Council's position.

Environmental Impacts

Contaminated Land

1.43 In terms of contaminated land SZC Co. are using the correct procedures as outlined by the relevant guidance (CLR:11 and GPLC), there is a commitment to continue this compliance but it will need to be included in the relevant documents and clearly so, be that in the Materials Management Plan or Spoil Management Plan, although we would suggest due to the wide range of this project they should also undertake to produce a Contamination Management Plan so that there is not confusion with other Plans / responsibilities.

1.44 The main issue here comes from necessity and one that we accept with caveats, obviously this is a massive project and the preparation has been going on for many years, the contaminated land surveys have been undertaken between 2009 and 2015 and although comprehensive means that there is currently 5-11 years where the situation may have changed and contamination may have been caused.

1.45 Ultimately this is acceptable if SZC Co. accept and take account of it which is why a Contamination Management Plan would be a useful document, all that essentially needs to be done is to ensure there is a robust discovery strategy in place and accept that there may be a need for extra initial survey in certain circumstances where there may have been a change in situation from when the initial survey was done.

1.46 The various reports have also made some recommendations so there will need to be a commitment that these recommendations will be undertaken in the DCO.

1.47 Overall current work has been done to an acceptable level and they are adhering to the appropriate national standards and guidance, this will need to continue as required by relevant legislation.

Lighting

1.48 Lighting is an area that has the potential to significantly impact with regards to nuisance, ecology, tranquillity and dark skies. From a prevention of nuisance perspective the lighting documents put a strong emphasis on the prevention of nuisance, the dynamic nature of construction and the need for lighting has been accepted and they have stated that there will be provision for monitoring.

1.49 In terms of construction lighting there will need to be a commitment for cooperation with us to investigate complaints of light nuisance and where a complaint is substantiated to address the issue even where there are lighting plans and assessments, this will also be necessary in terms of ancillary developments such as the park and rides, freight

management facilities and such like, as well as the operational station if the situation arose.

Landscape and Visual Impacts (LVIA)

Operational Phase

1.50 It is stated that embedded mitigation to minimise effects during operation include the design of the permanent development and associated infrastructure to limit visual prominence, including remodelling of the Northern Mound to screen lower level infrastructure from beach views and offshore. Façade materials, colours and building heights also contribute. Construction areas will be reinstated in accordance with agreed ecological and landscape management plans. Lighting is claimed to be kept to a minimum.

1.51 However, despite mitigation measures, **significant adverse effects** will remain for the existing landscape character of the area (Estate Sandlands, Coastal Levels LCTs)

1.52 **Significant adverse effects on visual amenity** have been identified for views at:

- Westleton Walks and Dunwich Heath
- RSPB Minsmere
- Coastal strip between Dunwich, Minsmere Sluice and Beach View holiday park.
- Eastbridge and Leiston Abbey
- Sizewell Belts
- Views from NT Dunwich Heath Coastguard Cottages
- Views from offshore.
- These include effects on the visual amenity of the Suffolk Coast Path and Sandlings Walk.

*It is claimed that these landscape and visual effects would only occur over localised sections of the AONB and Heritage Coast and so the effects during operation on these designations are therefore assessed as **not significant**. Again, this seems to a highly dubious and unsatisfactory conclusion and at best one of only passing academic interest as far as the AONB as a whole is concerned. The far more likely conclusion is that the impact on the *coastal* aspects of the designations are of notable significance. That said, the conclusion and removal of construction activity will remove many of the previously described adverse impacts in respect of the construction phase. It also needs to be noted that as construction activity winds down, so landscape restoration will commence. Provided that the anticipated intention to return the EDF Energy Sizewell estate to what is substantially acid grassland and lowland heath, plus woodland, hedgerow planting, then that must be regarded as a notable enhancement of the AONB landscape, although it will take many years before it is fully realised.*

1.55 When fully complete and all landscape restoration complete, it is anticipated that the most significant and adverse effects arising from the permanent presence of the

development will be largely localised (2km) around the site, along the coastal strip in front of the site, and in Nearshore Waters offshore from the site.

- 1.56 This is similarly likely to be the case for night-time effects, assuming that the depicted effects are a realistic representation of the proposed lighting strategy. As depicted, the majority of light spill seems to arise from the B station, with relatively little additional lighting shown on the C site. The exception areas being localised areas of the Estate Sandlands LCT, and visual receptors on the Dunwich to Minsmere coast area i.e. to the north of the site.

Further review required

Trees: there is reference in the DCO to SZC Co. following the UK Forestry Charter in respect of tree removals which is supported and encouraged. This will ensure the right replacement trees are planted in the right places.

Ecology

General

- 1.57 At this time it has not been possible to adequately scrutinise all of the reports relating to ecology, therefore this representation relies on a rapid review of the DCO document, further detail will be available as the process progresses.
- 1.58 Much is made within the DCO of the apparent endorsement by the Design Council of their proposals: '*...the design ambition for the landscape and its ecological stewardship is exemplary...*', however, no professional ecological input had been made to the Design Council and this misleading comment should, in terms of ecology, be disregarded.
- 1.59 Minor Adverse, Not Significant Impacts - there are many Important Ecological Features (IEFs) where the ES conclusion after mitigation is that there will be Minor Adverse, Not Significant impact. However, it is unclear whether the sum of all of these impacts has been considered or how they will be mitigated/compensated. Whilst there may be no significant impacts on these individual IEFs, not significant impacts will still result in a general degrading of the ecological value of the area and this must be addressed through a wider ranging strategic mitigation, compensation and enhancement approach, secured as part of the DCO.
- 1.60 Suffolk Priority Habitats and Species: It is gratifying that these are now being considered by SZC Co. but insufficient weight is being given to the local interest. As an example, the destruction and filling-in of the Sand Pits specifically mentions Yellowhammer and Bullfinch as two species which will be displaced but fails to recognise their importance as Suffolk Priority Species. The impacts on Priority Habitats such as Fen, Coastal Vegetated Shingle and Wet Woodland have been made elsewhere. Further effort in identifying suitable mitigation, monitoring and enhancement for these species is required.

1.61 *Associated Developments*: Specific commentary below but for all associated developments there are potential shortcomings in the survey work underpinning the assessments of impacts arising from the associated developments. This is an example of where an adaptive monitoring and mitigation strategy (see below) is going to be essential if the project progresses.

1.62 Summary of issues:

- One season's survey effort for two major road schemes and all of the other Associated Development would be a struggle in normal times but, with an unrepresentative year's weather, makes it all the more challenging.
- Assessing impacts as "not significant" when the data is problematic, and the mitigation and compensation will take a minimum of ten years to become viable is very optimistic.
- Impacts upon European Protected Species will be a crucial part of Natural England's response so we will not go in to any detail but the proposed bat bridges will not be fulfilling their intended function for many years and only half of the ponds suitable for Great Crested Newt have been surveyed.
- Although some of the compensation proposed looks impressive (e.g., fourteen ponds being created for one being lost) there is the question of ownership and long-term monitoring, management, and maintenance. There is little detail about this and, without a robust and climate-proof scheme in place, these proposals may not fulfil their intended functions and the impacts upon biodiversity will remain substantial.
- The length of time for the compensation habitat to become viable is a major problem. Ten years may seem a short-term issue in terms of the lifespan of a nuclear power station but, for wildlife, it could prove an eternity.
- Just because Suffolk is a County with much arable farmland, it does not mean that the loss or severance of such habitat is without serious consequences (as surmised by SZC Co.). No proposal for mitigation and compensation for farmland birds have been made, not even a single Skylark Plot. Impacts upon this species (and other Suffolk Priority Species such as House Sparrow) have, in effect, been ignored and this cannot be acceptable.

1.63 The data provided for Associated Developments is vulnerable to challenge for the reasons set out above and the significance of impacts has been seriously underplayed. Mitigation and compensation for the loss and severance of habitat must be more thoroughly considered as must be the long-term ownership and management of compensation habitat creation.

Shadow Habitats Regulation Assessment (HRA)

1.64 In order to be able to use the IROPI (Imperative Reasons of Overriding Importance) option, SZC Co. must demonstrate "*...compensatory measures must be demonstrated to be available and deliverable...*" (DCO, Book 5). This Council is concerned that, for the reasons stated elsewhere, compensation may not be available or deliverable. The SPA/SAC features e.g., Marsh Harrier and Harbour Porpoise. Marsh Harrier are

vulnerable to displacement by noise, light and construction but mitigation habitat has been identified (48.7Ha for the 100Ha lost - which only high-quality monitoring will confirm the suitability of) but Harbour Porpoise will find that, on the worst days, over 3,400 kg of fish will be interred by the cooling system and this will spread dead and dying fish over 5Ha of Sizewell Bay. No attempt to mitigate or compensate for this impact is discernible as “no adverse effect” is SZC Co. verdict.

- 1.65 The Council disagrees with the statement in 7.7.94 that the Suffolk Coast RAMS (Recreational Avoidance Strategy) is not directly applicable to the Sizewell C project. Whilst the Sizewell C project is predominantly the construction of a nuclear power station, it will also require housing of 2,400 workers for the construction period (9-12 years) in an onsite campus. These workers are expected to act as any other new resident to a residential development, albeit for a fixed number of years. As acknowledged in the Shadow HRA this will include undertaking recreational activities at European designated sites. This will therefore contribute to the in-combination impacts on these sites which are known to arise from increased recreational disturbance. The statement in the Shadow HRA (e.g. at 7.7.96) that *“It is considered that proposed housing developments which are covered by the RAMS Strategy, or by project-specific mitigation commitments, do not have the potential to cause an in-combination effect due to potential increases in recreational pressure with the activities of the Sizewell C Project”* is therefore only part of the consideration. Although new residential development will have provided adequate mitigation to address this impact as part of their own schemes, new residents (workers) in the campus, who are there as a result of the Sizewell C project, will also add to this in-combination effect and there is therefore a need for the Sizewell C development to mitigate this effect. Whilst in part this mitigation will be achieved through the delivery of alternative recreational opportunities as part of the development, nevertheless the Sizewell C project will still add to the recreational pressure on European designated sites and this will require addressing as part of the strategic mitigation package which is being delivered as part of the Suffolk Coast RAMS. The Sizewell C project must therefore make a financial contribution to the delivery of these strategic measures via RAMS in order to ensure that the development does not result in an adverse effect on the integrity of any European designated sites through in-combination increased recreational disturbance.
- 1.66 The Sizewell C campus is in the Suffolk Coast RAMS Zone of Influence Zone B. Developments in this zone are eligible for a financial contribution to the RAMS of £321.22 per dwelling. It is however acknowledged that the new residents will only be occupying the campus for approximately 10 years whilst the power station is being constructed and that peak occupancy will not occur throughout the entire construction period. The calculation of a proportionate contribution is therefore considered appropriate. An initial proposed calculation for a Suffolk Coast RAMS financial contribution would be as follows:

$\text{£}321.22$ (Zone B tariff per dwelling) / 6 (average residential development lifespan divided by campus lifespan) = $\text{£}53.54$
 $\text{£}53.54 \times 2,400$ (campus occupancy) = $\text{£}128,496$

Total contribution: $\text{£}128,496$

The above is based on the following assumptions:

- Expected lifespan of a new residential development approximately 60 years (e.g. <https://blog.planningportal.co.uk/2018/06/22/how-long-should-a-house-last/>).
- Campus will be occupied for 10 years.
- Full occupancy for the whole lifespan of the campus is assumed on a precautionary basis.

- 1.67 As the proposal also includes a 400-pitch / 600 resident caravan site for workers at LEEIE this must also be accounted for in assessing the required contribution. The same formula (and assumptions) would be applicable:

$\text{£}321.22$ (Zone B tariff per dwelling) / 6 (average residential development lifespan divided by campus lifespan) = $\text{£}53.54$
 $\text{£}53.54 \times 400$ (campus occupancy) = $\text{£}21,416$

Total contribution: $\text{£}21,416$

An overall contribution of $\text{£}149,912$ to the Suffolk Coast RAMS is therefore appropriate in order to help mitigate the in-combination recreational disturbance impacts that are considered likely to arise from the construction of Sizewell C.

- 1.68 SZC Co. accept that there may well be greater visitor numbers to other parts of the SPA but maintain that: “...*there is no automatic correlation between an increase in visitor numbers and the potential for disturbance...*”. This is not a convincing statement and recreational displacement is likely to have an impact on other parts of the SPA.
- 1.69 As with other areas, despite acknowledgement of considerable disturbance, SZC Co. position is that impacts will not be significant which is difficult to reconcile. One of the rationales used (with NOX) is that as levels already exceed critical loads, “...*increases are unlikely to lead to significant changes...*”. In other words, if something is not as good as it could be, damaging it further will not make any difference.
- 1.70 Disturbance to wildfowl and waders is also acknowledged (these are SPA features for the nearby Estuaries) but, again, to paraphrase, as Suffolk has plenty of alternative habitat, this is not considered to be an issue by SZC Co.
- 1.71 In summary, SZC Co. do not seem to want to acknowledge the long-lasting damage they propose to cause and hope that Suffolk’s remaining habitat will pick up (what’s left of) the pieces. It is Natural England’s responsibility to give the definitive view on the Shadow HRA and we look forward to reading their comments with interest.

Air Quality

- 1.72 A detailed air quality assessment has been submitted within volume 2, chapter 12 appendix A. There are specific comments regarding methodology within Stratford St Andrew with the potential to alter conclusions in this location. However, the methodology queries are unlikely to change the conclusions of the air quality assessment in other locations.
- 1.73 Detailed air quality assessments for rail, road traffic, non-road mobile machinery, emergency diesel generators for nuclear reactors, workers accommodation, Combined Heat and Power (CHP) and general construction have been provided.
- 1.74 Mitigation of dust during soil stripping - the mitigation measures within the Code of Construction Practice and Dust Management Plan allow for monitoring associated with specific activities. It is requested that dust deposition monitoring is required when soil stripping is undertaken within close proximity of sensitive receptors.

Operational Impacts:

- 1.75 Impacts from generators on short term air quality objectives - it is unclear how SZC Co. has entered model assumptions for EPR Unit 1 in the 'Duration of impacts - Long term (annual)' section. If this is a section with reference to the assessment of generators impacts against the long-term air quality objectives, then it would be acceptable to pro-rata emissions. SZC Co. should confirm how this has been done: either by pro-rating the mass emission rate in the model, or by specifying limited operating hours using the "time varying emission factors" option in the model, but not adopting both approaches, as implied. In contrast, the risk of short-term air quality objectives being exceeded should not be assessed by pro-rating emissions. It seems that SZC Co. has not pro-rated emissions for assessment of short-term impacts, but this should be confirmed by SZC Co.
- 1.76 SZC Co. stated their concerns as 'it is also important that the operating times of the diesel generators are not restricted under the permit based on any such assessment.' The reasons for not restricting operating hours under emergency conditions are appreciated, but stack height and diameter, flue location and operating hours under test conditions should be specified to avoid any significant risk of adverse air quality impacts. The same pro-rated emissions approach has been used for routine operation; this phase of operation should be assessed with a time varying function.
- 1.77 SZC Co. should be asked to confirm the approach taken to calculating emission rates for long-term mean and short term mean calculations. If required, the calculation of short term mean impacts could follow the Environment Agency's Medium Combustion Plant Directive approach to establish if there is an acceptably low probability (%) of exceedance.

- 1.78 *Air Quality Impacts upon Habitats:* there are ecological receptor locations which are estimated to receive an increase of 1% or more in nutrient nitrogen deposition. However, this will be an area of development as the generator types or mitigation are not known at stage of the application. Consequently, it is likely that the combustion assessment will be updated. Awaiting further information on this concern from SZC Co. Further information is still required with regards to assessment of air quality impacts upon habitats. In light of model results in Appendix 12B Tables 1.27 to 1.29 showing impacts substantially above 1% at all these locations, we need an explanation why lower process contributions have been presented within paragraph 12.6.73. In addition, what are the conclusions of the Sizewell C and associated development's contribution to NO_x, nutrient nitrogen and acid deposition?
- 1.79 SZC Co. have provided a write up under table 5-12, this shows that there are some species which are sensitive to NO_x impacts. Although it is calculated that there is a 1.6% probability of exceedances occurring at habitats. Routine operation/testing could be restricted to hours that weather conditions fall within the range of no exceedances. SZC Co. should clarify whether restrictions on routine operation could be put in place to minimise this exceedance. In addition, SZC Co. should clarify whether an ecologist has interpreted the significance of 24hr NO_x contributions to habitats with potential for exceedances.
- 1.80 Dunwich Forest is identified as natural screening from dust impacts. Whilst this is true of any habitats which are downwind of the construction site, the forest itself could also be vulnerable to adverse impacts, although it does not have any relevant national or local designation. Clarification with regards to this should be provided. In view of the proposed of Dunwich Forest to screen impacts due to dust, the applicant should include an assessment of potential impacts of dust deposition at this location.
- 1.81 *Rail operations:* It is mentioned that emissions from train engine idling has been represented within the dispersion modelling exercise. Further information is required on the assumptions used in the assessment of idling engines to agree that a reasonably conservative assessment has been undertaken.
- 1.82 The following information should be provided for the air quality assessment of trains:
1. It is noted that locomotives are emitting for 3 hours in the dispersion model. However, clarification should be provided on the realistic timelines that a train will be stationary;
 2. Clarification should be provided on where the 3 locations trains are required to stop. The largest impacts should be reported at each of the idling locations;
 3. Currently only annual average concentrations are presented for NO₂ and PM₁₀. However, impacts should also be reported against the 1-hour NO₂ objective and 24-hour PM₁₀ objective.

This information has yet to be provided by SZC Co. We need this information to further assess potential impacts.

- 1.83 Further detail has been requested regarding the assumptions used in the assessment of idling engines. SZC Co. should report NO₂, PM₁₀, PM_{2.5} from road traffic and rail emission sources at the temporary workers accommodation along with dust nuisance. There may be other points on the rail route that this idling assessment will need to be examined.
- 1.84 It is unclear whether assessment of formaldehyde and carbon monoxide impacts from the generators during commissioning and shutdown periods is included in the ES. These pollutants should be assessed further in the air quality assessment. If they are scoped out, clear justification for why should be provided. Formaldehyde and carbon monoxide emissions should be formally screened using a method such as the Environment Agency's risk assessment method (<https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit>)
- 1.85 Further detail in relation to potential impacts arising from car parks and human health receptors, an assessment is required that includes the consideration of explicitly modelling emissions from engine starts and movement. In addition, impacts from stationary cars through 'hot soak' should also be considered in assessing local air quality concentrations of benzene. If these are not assessed, justification for screening out should be provided.
- 1.86 At all car park facilities including the park and ride sites, facilities for electric car parking needs to be provided. There is some detail of this in the DCO documents and we expect it to be integral to the design of all car parking across the construction and associated development sites.
- 1.87 The Council requests that air quality monitoring is undertaken at agreed locations during the works in order to confirm modelled pollutant concentrations. This should start 1 year prior to any early construction works in order to obtain a baseline and continue for the duration of the construction period.
- 1.88 Assessment of impacts upon Ozone concentrations. Impacts upon Ozone concentrations should be assessed at areas with the largest increases in NO_x.

Heritage

- 1.89 The rationale set out in the described methodology is one that the Council would not use but can understand. It is appreciated that it has been somewhat difficult to generate a matrix-applicable methodology to suit the requirements of an EIA when such an approach is not generally employed by those involved with the built historic environment – that is, building conservation officers.
- 1.90 We support the view at paragraph 6.9.30 that all identified harm is to be treated thus, regardless of its magnitude. It would have been more helpful, however, for the ascribed magnitudes to be aligned in their effects with the National Planning Policy Framework (NPPF) terminology of substantial and less-than-substantial harm.

- 1.91 In our reading of the submitted assessments in relation to built heritage assets, it is the Councils view that the quality and calibre of the work has been undertaken to an acceptable standard of good quality, using appropriate references and with a clear rationale. On this basis and with reference to the NPPF, the assessments would satisfy the requirements of paragraph 189, if applicable.
- 1.92 Further detail in relation to conservation and heritage impacts is summarised below but a more detailed summary including areas of agreement will be provided to SZC Co. in due course.
- 1.93 *Remodelling of A12/A144 junction south of Stone Cottage, Thorington:* it does appear that the proposed remodelling of the junction of the Bramfield Road with the A12 will leave the triangular plot of the Grade II listed Stone Cottage unaltered. This is important since the shape of the plot – which forms the building’s curtilage – is historic. The current road junction and alignment are historic and there will be an adverse effect arising from the increase in extent of engineered highway at the junction, along the A12 adjacent and along the Bramfield Road. This will arise from the physical impacts of the works, although the perceptual effects arising from this change to the building’s setting will be broadly similar, in terms of the trafficked nature of the roads and character of a road junction.
- 1.95 It is unfortunate that the road design brings the northbound carriageway of the A12 considerably closer to the dwellings – this will have an adverse effect on their setting (and presumably the living conditions of the occupants). It is judged that this will give rise to a low level of less than substantial harm to the significance of Stone Cottage. Perhaps mitigation measures ought to be proposed here (there are none) to offset this harm. These could include, for example, the supply and installation of secondary glazing to the dwellings to provide some acoustic offset. Such work would not require Listed Building Consent.

Flood and Water

Potable Water

- 1.96 This is a potentially significant ongoing issue for which there are no clear answers in the DCO documents. However, given the unknowns in this area there is the potential for risk to private water supplies in the area which will need to be properly assessed.
- 1.97 Many of the possible solutions to this situation also involve unassessed construction and unassessed operational plant noise (pumps etc) along with options such as tankering of water potentially impacting on transport strategy and possibly air quality. These will need to be considered fully when the relevant decisions have been made.

1.98 SZC Co. proposes a number of options to access the large amounts of potable water it requires (which peaks during the tunnelling phase of construction), yet it is clear that this may require some medium to large scale interventions and there is not currently reassurance from Essex and Suffolk Water that they can meet the demand. It is possible that a number of the options could lead to significant environmental impacts in themselves that have not currently been assessed within the DCO EIA. We are waiting for further details on options available to SZC Co. and will reserve the right to comment further once that detail has been received.

Drainage

1.99 Sustainable Drainage Systems (SuDS) are drainage systems that are considered to be environmentally beneficial, causing minimal or no long-term detrimental damage. The hierarchy of drainage would be:

- (i) Into the ground (infiltration);
- (ii) To a surface water body (open watercourse, drainage ditch, river, sea etc);
- (iii) To a surface water sewer, highway drain, or another drainage system (only if (i) and (ii) cannot be achieved – proof usually required); and
- (iv) To a combined sewer (only if (i) and (ii) cannot be achieved – proof usually requires).

Socio-Economic Impacts Communities

1.100 There are communities living within close proximity to the main development site and associated development sites across East Suffolk. Other communities will be impacted by the Sizewell C proposal by virtue of sharing and using the same highway network during the construction phase. Also, by using recreational facilities close to the development site including coastal paths, local public rights of way etc. Once operational, the primary impacts of the development on communities will be predominantly in Leiston. However, during construction, the impacts will be wider spread across East Suffolk, adjoining Districts and Boroughs: Mid Suffolk and Ipswich in particular, and the wider County of Suffolk. This all needs to be taken into consideration by SZC Co. and ESC is talking and working with colleagues from all affected authorities.

1.101 *Community Safety* is a key issue across the construction of the project, the DCO at 5.2.36 suggests an increase in crime due to the Non-Home Based (NHB) workforce numbers to be between 0.3 and 0.8%. SZC Co. have considered the increased number of NHB workers at 5,900 and calculated this against the Suffolk wide crime stats in normal circumstances, which is skewed and an artificial assessment. They have not taken into effect the significant impact of the increased workforce across the affected East Suffolk towns of Leiston, Lowestoft, Saxmundham and Aldeburgh in terms of increased tension with local communities, traffic congestion and related community safety issues, anti-social behaviour effects of a predominantly young male workforce and the potential increase in local crime as a result e.g. drug related offences, County

Lines impact, prostitution, physical assaults and abuse. Comparisons are made with Hinkley, but the demographic is different in East Suffolk and closer comparisons and learning should be gleaned from the Sizewell B construction and the actual effects of the significant NHB workforce based in East Suffolk. Sizewell C is also a much larger project and estimated to be in construction phase for 9 – 12 years, compared to Sizewell B which was an 8-year build project. We are working closely with colleagues in Suffolk Constabulary and SCC in order to fully understand potential impacts and the mitigation that may be necessary possibly by SZC Co. funding additional Police and contributing to existing community work in the most likely affected area (Leiston).

- 1.102 Positive proposed introduction of the Worker Code of Conduct and proposed implementation of a stringent drug and alcohol testing policy is included, however learning and comparisons drawn from Hinkley may be mis-leading as Hinkley demographic is very different to East Suffolk's effected towns, and over emphasis and reliance on this policy would be a risk.
- 1.103 9.7.245 This assessment considers how measures have been designed to manage the Sizewell C Project's construction workers, their use of and access to public services, accommodation and community facilities, and how measures have been designed to promote integration, manage community safety and perceptions of safety to "reduce potential effects on community cohesion to minor adverse (not significant)". This is a very bold statement and further evidence required from SZC Co. as to how they will achieve this level of mitigation considering the above points relating to the Sizewell B experience. We also need to ensure that there is an appropriate balance between workers visiting, using facilities and spending money in the adjacent town of Leiston, and potential for over-whelming existing services in the town. SZC Co. by fostering a good relationship with Leiston-cum-Sizewell Town Council could support this relationship through ongoing dialogue and fluid changes to advice given to Workers etc.
- 1.104 The Council seeks to agree mitigation / preventative work / monitoring for:
- Potential effects related to cultural differences between NHB workers and residents;
 - Potential increased spread of County Lines to Leiston;
 - Hate crime (including against workers);
 - Community cohesion and integration issues; and
 - Increased provision of Police Community Support Officers in Leiston and surrounding area.

As part of this a comprehensive strategy of integration of workers with the local community, mitigation of negative impacts and an extensive monitoring framework to adjust this strategy as required. This needs to include further details on the proposed community liaison activities, provision of English language teaching of international workers and their families and facilities for different faiths groups. These need to be agreed as part of the CSMP and associated funding within the S106

included to an appropriate level. We also expect to continue working with SZC Co. on ensuring the correct mechanisms are in place to minimise adverse effects on social cohesion, community impacts and equality impacts as part of the Community Impact Report.

1.105 The Council also expects to discuss with SZC Co. the scale, nature and governance of the Community Fund and the principles within that Fund to ensure that it is robust and will address the intangible and unquantifiable elements of the Sizewell C proposal.

1.106 *Schools Capacity:* there is an assumption within the DCO that the numbers of partners and children accompanying Sizewell C workers will not impact significantly on local services. Modelling within the submission estimates 180 pre-school children, 190 primary school aged children and 33 secondary school aged children. This may not adversely impact on school and nursery capacities in the local area but will impact on local health visiting, and early intervention services. We expect appropriate funding to mitigate these impacts.

Public Health / Social Services

1.107 *Impact on vulnerable groups:* Working with SZC Co. we want to agree mitigation and monitoring for:

- Potential effects on vulnerable young people and care leavers, some of whom are in housing need or vulnerable to homelessness;
- Potential increase in rents in the PRS and impact on families and vulnerable households, potentially resulting in difficulty and homelessness;
- Safeguarding issues associated with renting out rooms (awareness raising programme may be required);
- The risk of sexual exploitation of young people and trafficking; and
- Health and social risks arising from unsafe sexual activity.

1.108 *Demand from workforce on public services:* the DCO limits most health mitigation to the proposed on-site occupational health service, this is welcomed and supported, but it does not mitigate for health impacts on the wider community, with the Council raising particular concerns with regards to stress, anxiety, mental and sexual health. Whilst the DCO refers to some elements including risky behaviour such as substance misuse and sexual exploitation, the proposed mitigation is limited, and we expect further preventative and reactive measures to be included. The Council needs to agree mitigation and monitoring for additional demand from the workforce on social services, child care and family support, Public Health and for the local Clinical Commissioning Groups (CCG) (Gt Yarmouth and Waveney CCG and Ipswich and East Suffolk CCG), the Ambulance Service and the Acute Trusts, as part of the S106 negotiation.

1.109 *Fire and Rescue Service:* SCC is still investigating potential impacts of the proposal on the Fire and Rescue Service. It is anticipated that specific service contributions to the Fire and Rescue Service will be required but this has yet to be evidenced by SCC. We are aware that other emergency services, Police, Ambulance have similar concerns and we

continue to work in close partnership with those organisations to establish appropriate mitigation and compensation requirements.

Archaeology/Historic Environment

SZC Co. has undertaken a programme of archaeological assessment and evaluation over the past few years, for a large proportion of the site, the evaluation of archaeological potential, using geophysical survey and trial trench evaluation have been completed. The impact of the development on the terrestrial historic environment must be assessed and mitigated to appropriate archaeological standards, even if this causes delay to aspects of the development, as a result of unexpected complex archaeological remains being identified. The necessary archaeological investigation to mitigate impact of development on the historic environment must be secured by clear and robust Requirements on the DCO.

The submitted Written Scheme of Investigation requires amendment prior to being acceptable, because it is written as a hybrid document it must encompass both evaluation and mitigation phases of archaeological investigation, it is essential that it provides clarity on the overall process.

Public outreach for archaeology: this is not addressed in the DCO. It either needs to be secured via a requirement or a separate clear agreement detailing the extent and nature of public outreach and the funding to secure it (s106). It is also expected that within S106 there is appropriate funding commitment to cover costs of Suffolk County Council Archaeological Service to enable publication of results and deposition of archive.

Offsite Mitigation Strategies

Aldhurst Farm: Prior to DCO, EDF Energy, submitted proposals to ESC for a habitat creation scheme at Aldhurst Farm, north of Leiston and west of Lovers Lane. Reference at the time was made to the site's future potential to offer mitigation for Sizewell C, but it was determined as a stand-alone independent proposal not linked to development at Sizewell C. The application was granted for a combination of reedbed creation and heathland creation and works commenced on site. It has been completed for several years now and the reedbeds are maturing very well. The site has recently been opened for limited public access with a small car park off Abbey Road, and fenced routes to keep dogs away from the more sensitive areas including the reedbeds. This has been a benefit to the town of Leiston as the site was previously in arable use.

The site links to the SSSI sites to the east of Lovers lane through a culvert under Lovers Lane. At the time of the planning application, improvements including regular clearance of this culvert was requested to improve connectivity to the east. However, we were told that this was to be dealt with as part of the DCO. It is disappointing that there are no proposals for improvements or ongoing maintenance to this culvert

submitted as part of the DCO. Particularly as Aldhurst Farm is proposed for water vole relocation, a species that would significantly benefit from being able to access and move between Aldhurst Farm and the SSSI to the east. It is requested that this request be added to mitigation proposals and incorporated in the oLEMP.

Fen meadow replacement habitat: Although a site is proposed for off-site mitigation for the loss of Fen Meadow arising from the loss of SSSI, there is a concern that this is very difficult to replicate and therefore there is a strong likelihood of failure. As such, we would seek to ensure that there is an appropriate monitoring regime and if required a contingency strategy.

Emergency Services

Emergency Services: In regular dialogue with colleagues in the emergency services we know that there are concerns with regards to the construction of Sizewell C and the potential impact on their service delivery. These services will be writing to SZC Co. direct, but this Council fully supports their representations and requests for service contributions through the S106 to try and mitigate some of the impacts.

Accommodation Strategy

Campus accommodation: the Council supports the building of an accommodation campus to house 2400 workers adjacent to the main development site and is supportive of proposals for a workers caravan site with 400 pitches, housing up to 600 workers on Land east of Eastlands Industrial Estate (LEEIE). Providing this accommodation will reduce pressure on the private rented and tourist accommodation sectors in East Suffolk. However, we need to be reassured by SZC Co. that the caravan site at the LEEIE will be available prior to work commencing on the main development site and that the accommodation campus will be available, preferably on a phased basis as constructed, before peak levels of construction workers on the site. We are satisfied that locating a campus in either Ipswich or Lowestoft (which could provide legacy benefit) would not meet the needs of SZC Co. and the required ability for the workforce to be nearby. It would also involve increased bus movements on an already busy highway network which would not be welcomed.

Caravan site at the LEEIE: we had previous concerns regarding the size of the caravan site proposed at the LEEIE, however SZC Co. have revised the layout and we are satisfied from a health and safety perspective that 400 pitches could be provide don the site. We are still yet to be convinced that workers bringing their own caravan will be willing or able to share with other workers, in this current time of Covid-19 this may well not be encouraged or appropriate. As such, capacity may only be at 400 people. In addition, it is not clear that workers in the later stages of the construction – mechanical and engineering etc. are likely to bring their own caravans – if they do not the LEEIE caravan site could lay dormant. We welcome the suggestion that static caravans could be brought to the site as a suitable alternative. However, we would want to be involved in such plans to ensure that the site is big enough to host statics in a safe manner – overall capacity may be reduced. There may need to be flexibility in

the Housing Fund to accommodate changes to SZC Co. provision of accommodation at the LEEIE if this drops to unacceptable levels.

Flexibility of campus accommodation: with the proposed increase in workers and SZC Co. anticipating that the majority of these will be NHB, there is a concern that the local housing market could be overwhelmed during peak construction time periods. It is therefore suggested that opportunities for flexibility in being able to increase / reduce the size of the campus as and when required may be welcomed by the Council.

Housing additional workforce: SZC CO. is reliant on the peak workforce increased to 7,900 + 600 workers to be predominantly NHB, this has the potential to significantly adversely impact on the housing availability around the site with potential overspill into adjacent authorities. We would prefer SZC Co. to focus on using HB workers to minimise impact on the local housing market.

Gravity Model: the gravity model is used by SZC Co. to predict the likely areas that workers will want to live, this is impacted by availability of accommodation and numbers of workers. The Council has currently commissioned a piece of work assessing and testing the robustness of the gravity model and its predictions in order for us to be satisfied that it accurately represents future outcomes. The findings of this piece of work will be discussed with SZC Co. and will be reported in our Local Impact Report.

Housing Fund: the Council supports the principle of an Housing Fund providing it is robust and flexible to meet the needs of a potentially changing housing market. It is anticipated that the majority of the Fund would be required to spent and invested in the first 7 years of the construction of the project in order to provide additional resilience in the local housing market. We will continue to work with SZC Co. on the principles for the Fund and agreeing governance of the Fund. We will also need to ensure that it is sufficiently robust to meet the anticipated needs of East Suffolk during the build-up to peak construction. In particular, we will be seeking to ensure that workers for Sizewell C do not displace existing residents into unsuitable or even homelessness. A robust Housing Fund will provide us with the resource required to adverse impacts are mitigated and where possible we provide enhancements to our housing market through programmes such as bringing empty homes back into use.

We have a number of comments relating to specifics of the accommodation strategy that require updating but these can be discussed direct with SZC Co.

Tourism Sector: there is an ongoing concern that additional workers servicing the Sizewell C development has the potential to overwhelm local tourist accommodation, although an element of this may be welcomed in the off-season, the seasonality for tourist accommodation in East Suffolk is becoming more widespread and there is a concern that the availability of supply for tourists will be adversely impacted by workers seeking accommodation. An element of the Housing Fund will be ring-fenced to ensure adequate housing supply for workers can be made available without impact on the tourist visitor economy throughout the year.

Skills, Education and Employment

We welcome the importance that the proposals place on capitalising upon the real potential for the development to create a positive long-lasting legacy for skills and employment in the region. We are supportive of the aspirations, including those to maximise local employment, and the commitments and investments outlined as well as the intention to integrate with regional strategy and initiatives. If the detail on the strength, scope and governance of these commitments is forthcoming, and at the level which we deem necessary, the development will undoubtedly provide many benefits for the local area including:

- significant numbers of local employment opportunities at all levels of the project – including for those furthest removed from the labour market
- enhancement of our existing local skills and training offer including the opportunity for development of future skills ‘hubs’
- enhancement of the competencies and capabilities of our local supply chains that will stimulate and facilitate further growth in our economy
- an enhanced inspiration offer, raising the ambitions and achievements of individuals across Suffolk

These benefits will provide a vital contribution to the recovery of the local economy following the Covid-19 crisis.

This submission highlights a number of areas where further detail / clarification or S106 support is required but in general we are supportive of the potential benefits arising from the Sizewell C project that can be realised if we work together in partnership with SZC Co. and other agencies. ESC seeks to maximise these opportunities prior to, throughout, and post the construction of Sizewell C. The Sizewell C jobs service being proposed by SZC Co. has the potential to be highly important in terms of ensuring the local workforce can take advantage of Sizewell C opportunity. However, it could also provide a potential conveyor for workers from Hinkley Point C. Working with SZC Co. we want to maximise the potential for local workers to access work through the jobs service on the Sizewell C project.

The flexible Asset Skills Enhancement & Capability Fund could be extremely beneficial to our existing college and provider base. It takes strong learning points from Hinkley Point C and attempts to build on existing strengths to create sustainability and a strong legacy within this sector. The focus within the strategy of a skills strategy is not just for the Sizewell C supply chain but supporting the skills need within the economy more generally as there are numerous infrastructure/ longer term construction projects in Suffolk that will benefit from this legacy.

The DCO refers to deliverable and enforceable mitigation proposals for the increase of the maximum workforce number to 7,900 + 600, to avoid or mitigate impacts on the local housing market, the local workforce and transport infrastructure. The DCO specifies that all the additional peak workforce will come from NHB workers implying an even larger impact on local accommodation than previously estimated. In addition, this could create additional traffic impacts. The Councils want to support maximising

the HB workforce through an extensive skill and education-based programme so SZC Co. does not have to be reliant on NHB for the peak construction workforce. SZC Co. promote a third of the workforce from the local area, we want to make sure this is a minimum figure and that in reality it is much higher and across all levels of employment on the site.

Economic Assessments: SZC Co. refer to Suffolk having a dynamic labour market (ES 5.4) referring to hidden unemployed who will work but are not claiming benefits – so the implication is that there is plenty of capacity to employ them at Sizewell C without any displacement impacts. They then go on to admit that 40-50% of labour will come from people who already have a job. The dynamic labour market is not evidence based and therefore we are challenging this. It is considered that by ensuring a robust programme of engagement and skills enhancement, we can work with SZC Co. to ensure that we have a workforce ready to meet their needs as well as a workforce ready to backfill roles vacated by the upskilled workforce.

Mitigation is required as a result is likely to be large scale training programmes and access to skills development and training provision for local Job Seekers Allowance (JSA) claimants and unemployed within communities, addressed appropriately could deliver the social mobility aspirations SZC Co. refer to and address future ageing workforce concerns. This is considered to be a positive.

SZC Co. suggest the lower paid, lower skilled positions will be filled by very local communities e.g. cleaning, park & ride sites etc. which will suit some local communities, but a range of opportunities including higher paid positions needs to be factored in and achievable for local communities too. The Council is working with SZC Co. to ensure we have programmes in place to support potential workers at **all** skill levels across the build.

In combination effects on labour market: SZC Co. claim they have considered and evaluated this through assessment based on peak – as in-combination effects will not require more workforce than that at peak. However, this requires further consideration as does not consider the impact of a peak sustained for longer due to in-combination effects than the current scenario considered. Baseline environment will change with in-combination effects. There is no mention of other energy projects in the same timeframe (e.g. ScottishPower Renewables East Anglia 1 North and East Anglia 2). These may have a cumulative impact on workforce and accommodation availability and we will work closely with all promoters to ensure these are all delivered without adverse impact on the local labour market by increasing the skills base locally.

Mitigation Strategy – Financial Investment: Some evidence used as part of economic assessment considered to be irrelevant for purpose or unreliable. Some assumptions or conclusions drawn from evidence is unsubstantiated. The need for a tourism fund is referenced and has been signposted previously – this is the subject of ongoing discussions with SZC Co. but it is not clear whether separate agreements (resilience

funds) have already been arranged with some key stakeholders – see below for more detail on Tourism impacts and Funds.

Clarification on local economic benefits and targets: Some evidence used as part of economic assessment considered to be irrelevant for purpose or unreliable. Some assumptions or conclusions drawn from evidence unsubstantiated. Insufficient clarity on definitions – e.g. home-based worker (HB). HB recruitment number remaining same for 7,900 peak as it was for 5,600.

SZC Co. state that unemployed and those economically inactive but want to work, will provide a considerable source of spare capacity within the labour market. They suggest 40% of local workforce will be drawn from these groups. This can only be true if they have the appropriate skills/ experience to match the vacancies. This appears to be a very high figure and would also suggest that large scale training programmes would be required for this to take place. The Council is in an excellent position, working with partners, to help SZC Co. deliver on this aspiration with appropriate funding and training opportunities.

Further into the document SZC Co. assume 50% of HB workers would be previously unemployed. Again, this appears to be a very high figure (and is inconsistent with their earlier figure) and evidence needs to be provided by SZC Co. in relation to this. There are assumptions with regard to the existing dynamic labour market of Suffolk and a potential pool of hidden workers, however, this scenario has no evidence to support it and no strategy to show how it will work in practice. The Council is keen to work with SZC Co. in order to realise this aspiration in an appropriate manner.

The Council has always maintained throughout all consultation that we are seeking a percentage of HB workers to be employed (36%) in the overall workforce (based at worst case scenario of peak) for SZC Co. to add a further 2,300 workers and say not one role would be taken up by a HB worker undermines their whole argument about the dynamic workforce we have available in Suffolk. The Council consider we do have a dynamic workforce and that it will be possible to achieve a number of these additional roles through local employment if the appropriate investment in skills improvement is provided by the project. We need an uplift in any mitigation funding to ensure we can develop deep and wide talent pools that can take up this extra opportunity and backfill those roles that become vacant through churn.

Local communities from the deprived wards need to be able to access the training and skills opportunities that will lead to the better paid employment e.g. engineering, electrical and mechanical industries. For this to occur either transportation to the training centres needs to be provided (£106 support) or training provided locally.

SZC Co. need to explain their evidence base and how and why this pool of workers will materialise when needed.

Upskilling of local workforce: Insufficient clarity on definitions – e.g. HB worker. Insufficient detail on key intervention, policy or commitment. Any further detail required to be achieved through discussion and negotiation at S106.

Will need to include displacement backfilling opportunities for local communities including JSA claimants, unemployed and school leavers. Policy development and S106 provision could determine how this will be achieved, including access provision (transport) to training centres or training also provided locally.

Validity and adequacy of evidence used: Some evidence used as part of the economic assessment are considered to be irrelevant for purpose or unreliable. There are negative impacts that have been ignored. Some assumptions or conclusions drawn from evidence unsubstantiated. SZC Co. refer to a hidden labour market so therefore plenty of capacity to employ them at Sizewell C without any displacement impacts. They then go on to admit that 40-50% of labour will come from people who already have a job. These two assumptions contradict each other. If the mitigation that SZC Co. are proposing through the skills, education and employment strategy is funded correctly it will sufficiently mitigate what we still believe to be significant negative impacts. We will also need to focus on monitoring and measurement of impacts. How these are reported, when these are reported and how we can ensure that we have measurement that allows us to spot negative trends that could lead to reaching our upper limit thresholds and therefore require further mitigation.

Employment Targets: Insufficient clarity on definitions – e.g. home-based worker. Insufficient detail on key intervention, policy or commitment. HB recruitment number remaining same for 7,900 peak as it was for 5,600.

It is positive that SZC Co. commits to addressing social mobility and aiming to provide 1000 apprenticeships, however it is suggested that very local communities will pick up the lower paid opportunities to support local services – cleaning, park and ride. For true social mobility to occur, local communities from the deprived wards need to be able to access the training and skills opportunities that will lead to the better paid employment e.g. engineering, electrical and mechanical industries, which would positively contribute to the HB employment targets. For this to occur either transportation to the training centres needs to be provided (S106 support) or training provided locally. Sustainable employment is required for local communities and post Sizewell C 12-year construction period, many current construction and mechanical and engineering workers leave the industry through natural wastage, due to the ageing workforce. Skilling up would need to commence soon to take advantage of the employment opportunities. SZC Co. maintain a significant number of hidden unemployed who want to be in work, and we have an opportunity to facilitate those opportunities and transition into employment.

We have always maintained throughout all consultation that we are seeking a percentage of HB workers to be employed (36%) in the overall workforce (based at worst case scenario of peak) to add a further 2,300 workers and say not one role would

be taken up by a HB worker undermines their whole argument about the dynamic workforce we have in Suffolk. If it is dynamic as SZC Co. suggest then they should be predicting and allowing for additional HB recruitment within these extra numbers.

We need an uplift in any mitigation funding to ensure we can develop deep and wide talent pools that can take up this extra opportunity. Any further detail required to be achieved through discussion and negotiation at S106.

Permanent Operation Roles: Insufficient clarity on definitions – e.g. HB worker. Insufficient detail on key intervention, policy or commitment. Operational staff numbers are included in the DCO documents as a positive for region (900 highly paid, highly productive etc.) However, there is no strategy included in the DCO to ensure we boost local levels of employment within this enduring operational workforce. We require an operational workforce strategy funded by SZC Co. to ensure we are inspiring people in a long-term manner for these roles and also we have capacity and equipment for operational training. This would be best delivered as a joint strategy with Sizewell B and Bradwell B. This Council will need to continue to discuss and secure commitment at the S106 discussions.

Apprenticeship Strategy: Insufficient detail on key intervention, policy or commitment in the DCO. Any further detail required will need to be achieved through discussion and negotiation at S106.

Local Skills Infrastructure: there is suggestion of funding for a regional skills coordinator – we need to know that this is employed by local stakeholders not SZC Co. Insufficient detail on key intervention, policy or commitment in the DCO. Discussions are ongoing with SZC Co. on what governance and mechanism will be established in order to determine allocations. Assurances now received that the Heads of Term in the DCO document is incorrect and that the S106 will be updated. We are encouraged that SZC Co. wants to work with existing initiatives such as ICANBEA, and understand how these can be enhanced to support the Sizewell C development rather than creating a series of brand new initiatives which may disappear once Sizewell C has been constructed. We are pleased to note that SZC Co. have been keen to ensure their strategy aligns closely with existing local and regional strategies to provide sustainability to existing interventions and create legacy in the local area.

Displacement of Workforce: Some evidence used as part of economic assessment considered to be irrelevant for purpose or unreliable. Some assumptions or conclusions drawn from evidence unsubstantiated. Displacement issue is acknowledged but dismissed as not significant. Just part of the normal operation of a labour market. Insufficient detail on key intervention, policy or commitment. Even if, as SZC Co. state, less than 10% of local employers during the Sizewell B build found the development made it harder to retrain/ recruit staff this is still significant. Sizewell C is a much larger development with a substantially longer construction programme therefore it is natural to expect the displacement effect will be significantly greater. We need SZC Co. to properly define what they mean by displacement. They seem to

equate displacement as normal so there is no issue – we believe there could be a real displacement issue with skilled workers moving from existing jobs to Sizewell C with detrimental impacts on the existing Suffolk economy.

SZC Co. need to recognise that the displacement effect is an issue and develop a mitigation strategy accordingly. We require a strong training/ skills uplift programme to mitigate displacement effects. Need to understand exactly the definitions that are used for displacement and churn by SZC Co. and ourselves. To overcome any displacement issues, we need to identify sector areas that are likely to be hit with displacement issues (data from HPC etc) and then ensure that we increase the pipeline and readily available pool of employees. To achieve this, we will need access to capital and revenue monies which we have influence over to drive interventions that ensure this pipeline is filled. Timing is incredibly important as needs to be far enough ahead of the expected demand spike to ensure pool is full. Will also need labour market information and monitoring and measurement in place to address dynamically. Any further detail required to be achieved through discussion and negotiation at S106.

STEMC Programme: there is an ambiguity / lack of consistency between the specific wording in the S106 Heads of Terms, the proposals contained in the Sizewell C Employment and Skills Strategy, the appendices and what the Council has discussed with SZC Co. What we have discussed has been an education strategy that will be delivered in partnership - collaboratively -but this does not align with other statements re: an SZC Co. owned programme, so we are not clear what the reality will be and require further clarification. There is also a lack of clarity over the bursary funds to be established and generally insufficient detail on key intervention, policy or commitment from SZC Co. SZC Co. have assured us that the Heads of Term are incorrect but we still await revisions to ensure our concerns are included.

Mechanisms for transferable skills base: there is insufficient detail on key intervention, policy of commitment in the DCO. The further detail we require can be discussed as part of the S106 discussions. This is a key area given the number of energy projects proposed for this region, we need to make sure the transferable skills base is promoted in this region.

Size and Diversity of Labour Market Pool: some of the evidence used as part of the economic assessment is considered to be irrelevant for purpose or unreliable. There is negative impact that have been ignored. Some assumptions or conclusions drawn from evidence are unsubstantiated.

The Council will need to focus on monitoring and measurement of impacts. How these are reported, when these are reported and how we can ensure that we have measurement that allows us to spot negative trends that could lead to reaching our upper limit thresholds and therefore require further mitigation. To move these people from economic inactivity to becoming productive and economically active will require targeted skills and educational intervention far greater than the programmes we

currently operate. To achieve this, we will need access to capital and revenue monies under our own governance to create and deliver these interventions

Supply Chain Support for Skills and Employment: the DCO contains insufficient detail on key intervention, policy or commitment, SZC Co. refer to intelligent replication. It is not 100% clear what this means but it appears it *could* mean a significant 'lift and shift' of businesses and workers from HPC over to Sizewell C. Discussions with Suffolk Chamber of Commerce seem to confirm this – the Chamber can only encourage the use of local companies – there is nothing contractual or guaranteed in relation to this. The Council needs to pursue this further with SZC Co. as we need to maximise the use of Suffolk companies in the Supply Chain for Sizewell C, if this needs to be secured through the S106 then we will pursue this.

Social Value Measure of Success: the DCO contains insufficient detail on key intervention, policy or commitment in this area. The Council needs to pursue this further with SZC Co. to maximise benefits in relation to social value arising from the Sizewell C project.

Strategy for high value / high skills local contract: the DCO contains insufficient detail on key intervention, policy or commitment in this area. The Council needs to pursue this further with SZC Co. to maximise benefits in relation to ensuring local companies get involved in high value and high skills work on the project.

Engagement Strategy between local businesses and Tier 1 contractors: the DCO contains insufficient detail on key intervention, policy or commitment in this area. It is mentioned but there is no reassurance that local firms will be prioritised, it seems more likely that intelligent replication will mean that HPC related businesses will be in the primary position to pick up work from Tier 1 contractors. The Council needs to pursue this further with SZC Co. to maximise benefits in relation to ensuring that local businesses can work with Tier 1 contractors and have appropriate access to working with Tier 1 contractors.

Preventative Programme: the DCO contains insufficient detail on key intervention, policy or commitment in this area. The Council needs to pursue this further with SZC Co. to ensure that it is covered within further discussion, amendments and updates to S106 agreement.

Promote research programmes and supply chain innovation in the local area: there is nothing specific on this in the DCO other than comments relating to working with Suffolk Chamber of Commerce and others to make sure that local companies are registered on the Chamber's Supply Chain Portal. There is a concern that we are not clear on the Chamber's role and influence in this area. We suggest that there needs to be a strategy for a high value contracts and employment linked to local firms.

Economic Development

This Council supports the benefits to the local economy that are achievable from the Sizewell C project, the £100m a year GVA uplift during construction and the £40m a

year GVA uplift for each year of operation, has the potential to significantly improve the local economy. If this is combined with appropriate skills and education interventions, we can maximise the opportunities for our region arising from the Sizewell C project. By working with SZC Co. on expanding our existing projects and aspirations, we can seek to avoid the potential for a boom then bust scenario which is common when development is focused on a single large-scale project. By combining our efforts with legacy potential with regards to other large-scale projects including road building, flood barrier construction and offshore windfarm proposals, we can maximise the legacy from the economic investment of each project in East Suffolk.

Economic Impact Assessment: We had previously asked for further considerations/evidence in economic assessments:

- Verification/strategy for SZC Co. forecast of over half of the roles being homebased for over half of the construction phase, taking the tight labour market and prevailing economic conditions into account;
- Impact of Brexit - exacerbation of labour market situation?
- Information is given on likely wages to enable any forecasting/calculation of likely GVA (gross value added) benefit to the local economy;
- Information on likely duration of job roles throughout the construction programme.

Our concerns remain in this area particularly with the changing economic picture in relation to Covid-19 and the unknown impact leaving the EU will have on the UK economy and labour market.

In-combination effects on labour market: We expected there to be consideration of the potential in-combination effects on labour market of Sizewell C with other major construction projects including ScottishPower Renewable projects, Bradwell B, other power stations in England and Wales and sizeable engineering projects such as Crossrail 2. We would expect this to be reflected in this mitigation package but there is no evidence in the DCO that this has been fully considered.

Mitigation strategy: Mitigation strategy with key targets and ranges for financial investment that SZC Co. is proposing in each economic subject area including skills, tourism and supply chain, to increase local economic benefits and reduce negative effects – comments in the DCO indicate that there will be S106 mitigation funds for tourism and plans are in place to develop skills/education/employment but the Supply Chain strategy is less clear and the ‘intelligent replication’ approach is a potential concern if the supply chain is to be ‘lifted and shifted’ from Hinkley Point C.

Local/Regional economic benefits: Clarification on local/regional economic benefits during construction and operation and consideration of more ambitious targets/aspirations, reflective of Hinkley Point C experience is required.

Partnership Strategies: Develop clearly defined partnership strategies focussed on other potential areas of economic benefit such as inward investment and supply chain

- e.g. regional office in Suffolk, innovation centre, there is nothing specific on this in the DCO documents.

Worker schemes: Develop innovative schemes to encourage non-home-based workers to spend money with local retailers, ensuring that local towns such as Leiston are not overwhelmed by workers. There is nothing specific on this in the DCO documents.

Tourism

Provide further detail and assessment on the tourism impact, through tourism surveys, to inform opportunities and mitigation measures for tourism: Separate tourism surveys carried out by SZC Co. and the Suffolk Coast Destination Management Organisation (DMO) in 2019 both show a negative perception impact on willingness to visit Suffolk if the development goes ahead. A Tourism Fund has been agreed in principle by SZC Co. to help mitigate these, and other, negative impacts and we support this but require further agreement in relation to the principles of the Fund and the robustness of the Fund.

Work with existing tourism partnerships to develop a tourism strategy and action plan with suitable mitigation: SZC Co. have been talking to the Council and key tourism stakeholders both separately and together. The proposed Tourism Fund can help to mitigate negative impacts but it is not clear what separate discussions and agreements SZC Co. have made with some stakeholders and how this may impact on the support they are happy to provide to the main Tourism Fund. The Council looks forward to discussing this further with SZC Co.

Provide a firm commitment to the tourism fund, agree scale, nature and governance: This is detailed in the Heads of Term for the S106 and we expect to agree further detail with SZC Co. in the next stage of discussions.

Work with local stakeholders to commission research that will help to define a vision and options for the proposed visitor centre that will maximise benefits for the local economy: SZC Co. propose a new visitor centre as part of their public relations/mitigation strategy for the development. There is an existing outline planning consent for this sitting with East Suffolk Council and Sizewell B (DC/19/1637/FUL), the proposal is also replicated in the DCO submission. This Council supports the provision of a Visitor Centre to serve both Sizewell B and Sizewell C as being a positive visitor destination initiative in East Suffolk, and we expect to be involved in future submissions in relation to design detailing of the facility.

Transport Strategy Impacts

The revised NPPF July 2018 updated section 9. Promoting sustainable transport. This talks about the need to consider transport issues from the earliest stages of development proposals so that:

(a) the potential impacts of development on transport networks can be addressed;

(b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;

(c) opportunities to promote walking, cycling and public transport use are identified and pursued;

(d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

(e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places. (para 102, NPPF).

Para. 108 goes on to state that in considering development proposals it should be ensured that:

‘a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

(b) safe and suitable access to the site can be achieved for all users; and

(c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.’

NPS EN-1 refers to the consideration and mitigation of transport impacts as an essential part of Government’s wider policy objectives for sustainable development. It states that projects should include a transport assessment, prepare a travel plan, and if additional transport infrastructure is proposed, discuss possibilities of co-funding by Government for any third-party benefits. SZC Co. has complied with all of the above (the Travel Plan will be required under S106). It goes on to say that the applicant should seek to mitigate impacts on the surrounding transport infrastructure arising from development, it is recommended that planning obligations (S106) and requirements are imposed to mitigate identified transport impacts. It also states that ‘appropriately limited weight should be applied to residual effects on the surrounding transport infrastructure’ (p.109 NPS EN-1).

It goes on to say that water-borne or rail transport is preferred over road transport where cost-effective. NPS EN-6 Vol I refers to the probability of local transport impacts during construction, it refers applicants to demonstrate the proposal would not have an unacceptable adverse impact on significant infrastructure (this can include motorways and major highways and the strategic rail network, and ports).

NPS EN-6 Vol II specifically refers to the site at Sizewell, the pages on Sizewell refer to public rights of way and recreational access around Sizewell, there is brief mention of the routing for construction vehicles upsetting local people and some respondents

stating that use of a railway would be beneficial. It is assessed a shaving the potential for some adverse impacts locally from additional traffic generated during construction and wider negative effects on regional road infrastructure.

SZC Co. in their DCO propose what they call the 'Integrated Strategy' for transport – it is a combination of road and rail, there is a small element of sea-based transport using a proposed beach landing facility. It is our understanding that the majority of the 3 rail paths (6 rail movements) will be over-night during peak construction. The beach landing facility will be predominantly used Spring – Autumn and not during the winter months. The overall Transport Strategy proposes a minimum of 40% of materials to be transported by sea or rail, with the remainder by HGV. We want to work with SZC Co. to maximise the use of rail and sea without having an unacceptable impact on residents.

This Council is disappointed that opportunities appear to have been missed over the last ten years of preparation for this DCO by SZC Co. and Network Rail to work together to enable improvements to the wider east Suffolk rail network which could have delivered a rail-led strategy resulting in a minimum of 5 rail paths a day (10 rail movements) with minimum over-night.

However, mindful of NPS EN-1 it is acknowledged that by proposing a Two Village Bypass, a Sizewell Link Road, a Yoxford Roundabout and other small changes across the highway network, that SZC Co. are seeking to mitigate significant impacts on highway safety and the transport network to an acceptable degree.

It is also important to recall that in previous stages of public consultation this Council has repeatedly sought an alternative to use of the B1122 for HGV access to the Sizewell C site. We jointly commissioned a report with SCC in May 2016 by Accent, to carry out a Sizewell C impact assessment, researching the perceived community impacts of increased traffic associated with the construction of Sizewell C. This independent study provided important information about the priorities of local residents along the B1122 which would be difficult to assess or obtain under industry accepted assessments such as EIA. The potential volume of traffic and increase in lorries and other heavy vehicles along with traffic speed were mentioned most often during the survey. A relief road was brought up by residents as being a potential solution. (<https://www.eastsuffolk.gov.uk/planning/sizewell-nuclear-power-station/transport/>).

Therefore, although we have some specific topical concerns with regards to the Sizewell Link Road as proposed which will be detailed later in this report we are supportive of the principal of a new road for the primary reason that it takes HGV traffic from the existing B1122. This enables the B1122 to become a lesser used highway resulting in an opportunity to downgrade its status and capacity and encourage it as a cycle friendly route from Sizewell heading northwards.

An additional concern with the Integrated Strategy is to the potential for HGV movements early in the morning and late at night, there are a large number of residential properties in close proximity to the highways that will be used by HGVs servicing the site, outside of usual 8 – 6 hours these roads are very quiet, there is

potential for HGVs at these times to have a significant impact and we need further detail to ensure that this can be appropriately avoided or mitigated.

We would like to have further information and detail with regard to Abnormal Indivisible Load (AIL) movements, our learning from Hinkley Point C is that a large number of these take place in the early years of construction – before associated development and new roads are brought online, we would like to understand the strategy for managing these deliveries given the road network they will be required to negotiate in the early years is not very good for AILs.

ESC with coastal responsibility had raised concerns with regards the potential impacts on coastal geomorphology that would have been likely to arise should a jetty have been constructed, as such we are satisfied that a sea or marine-led transport strategy would not have been appropriate.

We always have been and remain supportive of a rail-led approach but we would prefer the majority of the rail movements to take place during the day. We do have concerns that over-night rail movements of what will be heavy freight may have an unacceptable impact on residents of East Suffolk living in proximity to the East Suffolk Line and Branch line to Leiston. This concern is combined with potential noise arising from over-loading these trains in the early years at the LEEIE. We need more detail and clarification with regard to timing of rail movements over night so we can assess potential impacts with regard to noise and vibration.

However, if we are satisfied with the rail movements proposed we would still expect to be involved in discussions with regards to transport caps – HGV and possible buses and LGV also, and the monitoring arrangements for these. As host local authority we would expect to sit on the Transport Review Group associated with the project also.

In addition to this we are aware that SCC as Highway Authority has specific concerns regarding other junctions and stretches of road in the vicinity of the site and we support them in evidencing to SZC Co. why additional changes are required.

Additional road improvement requirements: The Council expects that the construction of the project will have a detrimental effect on highway safety across the East Suffolk network, in some cases it will impact on highway capacity, and increase the environmental impacts of road traffic such as severance, delay, fear and intimidation in a number of communities, along the A12, the B1122 prior to the delivery of the Sizewell Link Road, the B1078, specific rural roads, roads in Leiston and Wickham Market, and to a lesser extent the A14. Locations that we consider likely to require additional improvements are:

55.

- a. Mitigation for B1125 through Westleton because of environmental and community impacts – including local pedestrian and cycle improvements;
- b. Mitigation for construction and operational traffic in Leiston;
- c. Mitigation for A1120 through Yoxford because of environmental and community impacts – including local pedestrian and cycle improvements;
- d. Mitigation for B1122 prior to delivery of SLR – including local pedestrian and cycle improvements / infrastructure;
- e. Highway capacity improvements for the A12 corridor between A1152 and A14. This includes mitigation to the SZC traffic impacts on the A12 south of

Woodbridge. The modelling as we understand it shows that congestion in this area diverts traffic of all classes of local traffic onto other routes e.g. B1078, A1120 and A1152/B1069; improvements to the A12 corridor would mitigate this diverting;

f. Mitigation for the A12/Woodbridge Road junction at Bredfield because of highway safety concerns;

g. Mitigation for A12 Little Glemham and Marlesford as a result of environmental and community impacts - including local pedestrian and cycle improvements;

h. Mitigation for the significant impacts at B1078 / B1079 - sufficient funding needs to be in place for this corridor;

i. A12 Blythburgh - including local pedestrian and cycle improvements;

j. mitigation of impacts in Saxmundham and adjacent junctions on the A12 and the B1119 towards Leiston.

For Wickham Market and Leiston, we are working with SZC Co. and the Town and Parish Councils to agree a costed formal mitigation package for each of them.

Environmental improvements: from an environmental perspective and with air quality a key issue across East Suffolk, we expect all HGV vehicles to be a minimum Euro VI standard with regards to emissions, and we expect other fleet vehicles including the park and ride buses to be low-emission or carbon-neutral in order to minimise adverse environmental impacts on East Suffolk.

Controls and monitoring: we expect there to be a robust mechanism for monitoring HGV and AIL movements to the site with appropriate caps in place. Controls and monitoring within the Construction Traffic Management Plan and Construction Workers Travel Plan are required to ensure that workers use sustainable transport modes. This should be facilitated by ensuring electric charging points are available at all park and ride sites, the campus and the main site car park area. Bus hire should also be offered at campus and caravan sites. Fly parking was an issue in the early stages at Hinkley Point C which created pressure on the planning enforcement team at Sedgemoor District Council, the Council worked with EDF Energy to address this at Hinkley by the project introducing a flexible bus routing strategy that can respond to workforce requirements and locations, there is a member of staff at Hinkley point C who is responsible for bus routing for the workforce. A similar approach will be expected to be introduced at Sizewell from the start of construction, in addition to the early years park and ride site in Leiston which is to be operational from the start of construction. This is preferable to East Suffolk Council having to take enforcement action as Local Planning Authority should unauthorised parking areas appear in the early stages of construction.

Public Rights of Way and Cycling Provision: The Council expects comprehensive mitigation for temporary closures of the England Coast Path/Suffolk Coast Path, with further improvements required to the proposed alternative inland route during coastal path closures and an alternative if the closure is to last longer than a few days. The Public Right of Way (PROW) along the seafront needs to be designed for the long term, so should not be on the sacrificial soft coastal defence feature, but on top of the hard coastal defence feature.

PROW need to be secured in the long term, including linking Kenton Hills to Aldhurst farm, and Kenton Hills to the coast once construction is completed. Detail of PROW realignments and improvements, for the areas around the main development site, the rail link between Saxmundham and the development site, and all the associated development sites need to be resolved to our satisfaction.

A comprehensive package should mitigate the wider impacts on PROW and amenity and recreation. In addition, in order to reduce carbon emissions and environmental impact to respond to the unsustainable freight transport solution and to mitigate the tourism and local amenity impacts, the Council would like to discuss and seek provision for a package of PROW and cycle infrastructure improvements in the wider Sizewell C landscape, as well as potentially along its transport corridors and near the associated development sites. One element of such a package would be incorporation within the construction workers travel plan the encouragement and potential inducements such as showers, bike loans, electric bike loans for workers to walk or cycle to the construction and operational site or park and ride sites. In addition to this, we would like to discuss a package of options towards downgrading and re-creating the B1122 through Theberton and Middleton as a family cycle friendly route from the coast at Sizewell northwards once the Sizewell Link Road is operational.

As part of provision of a new highway we would require SZC Co. in agreement with the Highway Authority to maintain the Sizewell Link Road through its construction phase and carry out any maintenance required and pay a commuted sum to the Highway Authority for its adoption post-construction. There may be other areas of highway where maintenance contributions will be required.

Air Quality

The Council has long requested that lower emission standard construction vehicles – Euro IV, be adopted by all tiers of construction contractors to minimise impacts. To date, there has been no standard for non-road mobile machinery (NRMM) specified by SZC Co. The outline Code of Construction Practice (CoCP) should commit the contractors to using at least EU standard 2016/1628 compliant NRMM.

Euro VI emission standard should be specified for all tiers of construction contractor's HGVs in the Outline CoCP. NRMM should be compliant with EU standard 2016/1628 emission standards. It is requested that tier V NRMM is adopted by all tiers of contractors on the project.

The assessment which assumes that the majority of construction HGVs will adopt Euro VI emission standards is not a reasonable worst-case assessment as only Euro V is referred to in SZC Co. submission. An additional row makes reference to a technical note and request to address lack of conservatism within this assumption. It is still the Council's position that a commitment, monitoring and enforcement of Euro VI emission standards for construction vehicles should be adopted.

No further information has been provided on whether any local fleet mix studies have informed assumed fleet mix within the emission factor toolkit. Further to this SZC Co. has retained the 'basic split', rather than adopting the detailed version 3 option to best represent emissions from SZC and associated developments construction traffic. SZC

co. has provided further information on the fleet mix and euro standards within their assessment in Pre-meeting comment 1a, with the assertion that 'the impact assessment has assumed the higher emitting fleet mix and is therefore conservative'. This assertion is based upon an ambition to 'maximise the proportion of Euro VI vehicles', but that only 89% of HGVs in assessment emission calculations are Euro VI.

In reality, SZC Co. has only committed to Euro V emission standards for HGVs within row G7.1 of Table 1.1 in Annex 12A.1 of Appendix 12b. It also appears there is no monitoring or enforcement regime in place to ensure a minimum of Euro V standard – this requires confirmation. As only a commitment to Euro V HGVs has been made and without any clear monitoring and enforcement regime, it is not agreed that HGV emissions represent a worst-case scenario. A worst-case scenario would be assuming partial compliance with Euro V standards for HGVs using the detailed option 3 to split construction vehicle movements only between rigid and articulated vehicle types. Even with monitoring requirements for Euro V standards, Oxford Brooke's impact assessment of HPC showed that monitoring was only undertaken for Q1 of the first construction year. As a result, there are concerns that Euro standard ambitions will not have the enforcement regime necessary to achieve these standards.

The main implications of these observations are that impacts within the Stratford St Andrew AQMA during the SZC only and cumulative scenario with EA1N and EA2 constructed concurrently have been under-reported. A sensitivity test should be presented showing what only SZC and in-combination pollutant concentration impacts with EA1N and EA2 are - emissions calculations should assume Euro V artic and rigid vehicles. In addition, no sensitivity test of expected emission reductions from background traffic in EfT and Defra's background maps has been presented. The sensitivity test should also consider how to best represent the uncertainty in future emissions as per the IAQM's position statement.

Construction traffic impacts - clarification was previously sought on where street canyons are located. The Council reviewed whether any additional street canyons have been excluded from the study area which could significantly affect results.

Beccles has been identified as a location with street canyon features which has not been represented as such within the dispersion modelling and could be impacted by Sizewell C's construction traffic.

There is no monitoring data to confirm concentrations of NO₂ at sensitive locations close to the A145 in Beccles. Given that this location contains street canyon features and was not represented as such within dispersion modelling, to avoid potential impacts within this location, it is requested that construction traffic should take an alternative route. Construction traffic should avoid passing through Beccles town centre to access the A146, instead using the A145 southern relief road and B1127.

Assumptions behind traffic flow calculations – there were previous concerns with regards to the traffic flow assumptions that had been used. However, although it is

considered that a more conservative approach could have been used, this approach is considered to be acceptable.

The proposed approach for representing Sizewell early years is as follows:

“The ‘average’ day is considered conservative on the basis that it assumes all the associated developments would be constructed at the same time, when in reality it is likely to be phased.”

Using Sizewell C’s average day construction traffic is considered a robust approach for assessing Sizewell C’s impacts against the annual mean NO₂ air quality objective. However, this will not capture the largest impacts for comparison against the 1-hour NO₂ objective. Predicted concentrations for comparison against the 1-hour NO₂ objective and potentially the annual mean NO₂ would be better represented using a time varying emission function within ADMS-Roads with a simpler .fac or more detailed .hfs file. This would represent actual emission variations associated with peaks and troughs of construction traffic and associated impacts upon short term pollutant concentrations.

This approach would enable ADMS-Roads to represent reality as closely as possible. This approach, in addition to the ‘average day’ approach, will enable the risk that Sizewell C and cumulative developments pose to meeting the annual mean or 1-hour NO₂ objectives to be assessed. This approach only needs to be undertaken within AQMAs and areas which, in the existing baseline, are at risk of exceeding the NO₂ AQOs.

It is not clear if the applicant has used a time varying function to represent emissions from road traffic. The applicant should use a time varying function in ADMS (.fac or .hfs file) to ensure that the model accurately represents the time and quantity of emissions based upon the construction schedule. If this has not been used within the assessment an alternative approach should be justified.

Site Specific Impacts:

Main Development Site

Coastal Geomorphology

The proposed development is located on a relatively stable length of the Suffolk Coast which is subject to constant and variable change from the action of waves, currents, and storms. Sea level Rise and Climate Change are likely to alter the nature and pace of previous coastal change trends. It is not possible to predict future changes with certainty however a net increase in landward movement of the active shoreline is probable.

Policy: The management policy for this coastline is to allow natural change to prevail with a caveat that protection of the power station sites is a necessary Line to be defended. The policy was set in 2012 and so the backstop line is that of Sizewell A and Sizewell B.

The Council’s objective is to ensure that the development complies with this policy intent and that any potential disruption to natural change that is attributable to the

development is avoided or mitigated and that the development is fully removed at life expiry. The Council policy objective is consistent with NPS and UK Marine Policy Statement text taken from 6.2 V1 chapter 6 EIA Methodology, Appendix 6 P, Table 1.1, copied below:

EN1 5.5.7 Requirements of NPS. Requirement. "Applicants should assess the impact of the proposed project on coastal processes and geomorphology, including by taking account of potential impacts from climate change. If the development will have an impact on coastal processes the applicant must demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast."

And UK Marine Policy Statement (Section 2.6.8, pertaining to coastal change and flooding) 'Developers should also seek to minimise or mitigate changes in geomorphology and coastal process (including sediment movement)'.

Proposed permanent works that may interfere with coastal change:

The rock sea defence that is the seaward edge (E and N) of the main site (HCDF)
The artificial sand and shingle mound placed on and seaward of the rock defence (SCDF)

The Beach Landing facility (BLF),

Fish Recovery Return outfalls, 2 no. (FRR) and the Combined Drainage Outfall (CDO).

The offshore cooling water intake and outfall structures are ~3km offshore and therefore highly unlikely to have an impact at the shoreline.

Proposed works impacts: The Sizewell C platform is estimated to extend ~40m tbc further seaward than the 'building line' established by Sizewell A and continued by Sizewell B. This is a result of stakeholder pressure on SZC Co. to position the platform further east to minimise effects on the SSSI located to the west. The HCDF is the element most likely to have a significant and enduring negative effect when it is exposed by a naturally retreating shoreline however the position of the sea defence cannot yet be accurately determined owing to the lack of a final design for it. SZC Co. have identified that the HCDF will probably become exposed and block the flow of sediment leading to accretion, predominantly on the Minsmere (North) side, or erosion, predominantly on the Thorpeness (South) side, when compared with natural changes that would have occurred in a No Sizewell C scenario. Mitigation is required to prevent or correct these departures from natural change.

The SCDF is embedded mitigation provided to delay the negative impact of exposure of the HCDF. It will require active management informed by a comprehensive monitoring programme and is predicted by SZC Co. to be effective until 2050 / 2080. After this date secondary mitigation will be applied involving beach management by recycling, bypassing, and nourishment.

SZC Co. suggest that mitigation will cease before end of decommissioning at ~2130. SZC Co. has no plan to remove the HCDF, unless required by the Pre-Decommissioning EIA.

The development life is forecast to end between 2160 and 2190 after removal of the spent fuel facility. At this date, the HCDF is no longer required to protect the site. It will therefore potentially affect coastal processes for between 80 and 140 years if it is removed by 2190.

The BLF has potential to alter natural change trends in its locality and beyond. The risk is higher during use involving barge deliveries that require dredging to create navigation access and so will be greater during the construction phase than during operation when it will be dormant for the vast majority of the time.

The consequence of a negative impact will be an unnatural change in shoreline and or seabed profile. It is agreed with SZC Co. that detection and management will require a comprehensive monitoring and mitigation programme.

FRR and CDO have limited potential to cause unnatural change at the shoreline by interference with nearshore sandbars that are important sediment movement pathways. It is agreed with SZC Co. that detection and management will require a comprehensive monitoring and mitigation programme.

Required interventions as part of the DCO process:

Monitoring and Mitigation Plan (MMP): this Council several years ago agreed with SZC Co. that a comprehensive MMP is required to inform decisions on if and to what extent an observed coastal change in the Sizewell C zone of influence is attributable to the development and what responses are appropriate. A draft MMP has been prepared by SZC Co. which is welcomed, this is currently under consultation with key stakeholders in parallel with the DCO process. Whilst the content of the MMP is encouraging, the DCO suggests that the MMP process will probably be halted between 2100 and 2130. ESC does not agree with this.

We believe it is essential that a precautionary principle is applied to assumptions on potential future critical requirements such as this (in line with Rochdale Envelope guidance). Also, that the Sizewell C SZC Co. project plan and budget must assume that the MMP will remain active, with increasing investment demands to manage an increasingly exposed HCDF, unless and until either the HCDF is removed or when SZC Co. interest in the site transfers to another owner. In the case of a transfer we believe that the new owner must be bound by covenant or other legal mechanism to adopt responsibility including costs for maintaining the MMP process. The Council seeks PINS support to make this an obligation upon SZC Co. through the DCO process.

We also seek PINS support to require an independent body to monitor the MMP, with 'legal' standing if possible, to direct SZC Co. mitigation and compensation requirements.

Removal of HCDF: The DCO (6.3 ES Chapter 5 Decommissioning) states: "*Funding of decommissioning - 5.3.1 The costs of decommissioning, waste and spent fuel management (post End of Generation) and disposal of all higher activity waste will be funded through a Funded Decommissioning Programme (FDP). Under these*

arrangements, SZC Co. will ensure that it sets aside funds over the operating life of the Sizewell C power station to cover these costs in full." And "5.7.22 At this time, it is not proposed to remove the Sizewell C coastal defence and thus, there should be no requirement for substantial decommissioning works in the intertidal area and hence no significant adverse effects on ecological receptors in this area would be anticipated. However, this would be confirmed within the EIA submitted prior to the End of Generation'."

The implications of an eternal HCDF projecting into the sea at this location are not able to be predicted with certainty at this time, however, we believe the risk of allowing a 800m long by 10m (or 14m high) mainly rock headland to develop and remain at this location is unacceptable. We believe that the FDP must make provision for the cost of full removal of the HCDF, when safe to do so, as part of the decommissioning process unless and until a future study, informed by monitoring and other data, changes this position. The Council seeks PINS support to make this an obligation upon SZC Co. through the DCO process.

Archaeology

Platform peat strategy: identifies the high potential for organic cultural remains and palaeoenvironmental remains, within of Work No.1A (a) to (h) (main platform). Through predictive modelling it identifies a mechanism by which the peats can be evaluated. It requires a Written Scheme of investigation for archaeological excavation of the peat deposits to be drawn up and approved. We are pleased that this document must contain provision to extend the excavation areas if "exceptional survival of archaeological remains" is identified. The Council takes this to mean significant remains of human habitation, industry or burial or artefacts of particular intellectual value, e.g. boats.

Heritage

There are no significant adverse impacts on Grade II listed Upper Abbey Farmhouse anticipated or identified during construction. SZC CO. does identify significant adverse impacts on Grade II Abbey Cottage and the non-designated heritage asset (NDHA) Dunwich Coastguard Cottages during construction. There are no other significant effects on heritage or conservation assets identified during construction. The repair of Upper Abbey Farm barn is a significant long-term benefit and we will want to be involved in the detailed schedule of repairs proposed for this heritage asset. The Council would have welcomed a program of repair/re-use of other heritage assets which have deteriorated under SZC Co. ownership and we are happy to discuss this further mindful that it would be outside of the DCO process. However, we note that investment for built heritage repair seems very low compared to landscape and ecology investment and therefore if there is an

opportunity to increase investment with regards to heritage assets, we would be very supportive of this.

At the roundabout to the main development site there is an adverse impact from the development of the roundabout within the immediate setting of Abbey Cottage, this contradicts the DCO submission and more detail on how this can be mitigated is sought.

Permanent backup generator and emergency equipment store: the siting of these buildings within the curtilage of Upper Abbey Farmhouse is acceptable subject to appropriate design and materials being used for the construction.

Conservation area assessments: Thorpeness beach is excluded from the Conservation Area and therefore glimpses of Sizewell C will not impact the Area. Potter's Street Crossroads – views toward Sizewell C from listed buildings will be altered but this does not diminish their appreciation. Dunwich Coastguard Cottages – here lies the greatest magnitude of change through intensification of industrialisation and reduction of undeveloped landscape, both of which are an important aspect of their appreciation. Contrary to the view of SZC Co. who see these as LVIA assessed as medium-small adverse and heritage assessment insignificant minor adverse. This Council considers it to be a medium magnitude, moderate adverse effect on medium significance asset. After impacts on Upper Abbey Farm, the greatest construction phase impact from the Main Development Site will be on the NDHA which is the Coastguard Cottages at Dunwich Heath, due to physical and visual proximity and the fact that the cottages face Sizewell directly.

It is agreed that there will be no impact on the significance of Southwold Conservation Area

Design (Refs to Design and Access Statements and Design Principle Documents)

Turbine halls: SZC Co. propose aluminium cladding panels and it is considered that the proposed choice offers a sophisticated approach to combine multiple considerations in respect of materiality, colour, shading, the dynamic interplay of changing daylight and climatic conditions and the landscape and seascape context, in one modelled material.

The turbine halls will be bulky buildings in a prominent position but by using this cladding, the building will not 'disappear' but the suggested effect that they may arise through the visual dissipation of the monumental solidity of their volume through the shimmering effect of their external surfaces. The idea that you will approach these monumental scale buildings and be surprised by the light, evanescent surfaces which confound their solidity is appealing. It is considered that the proposed approach to these big boxes will enliven them yet their monolithic uniformity is not denied. We support the approach illustrated of a vertical gradation in visual effect from lighter to darker, top to bottom. There are still design queries to be resolved such as the size of the shadow gap, the grid of smaller and larger shadow gaps, and edge treatments at corners/parapets/junction with plinth storey.

Turbine halls / Operational Service Centre (OSC): We are not clear from the submission what the plinth storeys to the turbine halls and OSC building will look like. The appearance of glass fibre reinforced concrete panels is unfamiliar to us. The accompanying illustration (Fig. 7.42) shows a deliberately dark colour effect but we are unclear how this is achieved with concrete. The illustration also appears to show textured finishes to the concrete panels.

These are all key detailed design elements to clarify at some point since, these materials and effects will be deployed at a vast scale. It is noted that the 1.5m width module of the aluminium panel is used here as the short dimension to maintain a uniform vertical width from bottom to top of the building. It is supposed that a cartesian grid is the most straightforward application of a system to order these facades. However, it is still possible to gauge the effect that is being sought here with the design of the plinth and its relationship to the aluminium cladding and this Council can endorse it.

As an additional point, it is not considered that the skybridges will be particularly discernible as key architectural elements, as suggested elsewhere in the Design and Access Statement. Their setback position and very small scale in relation to the Turbine Halls and OSC building will mitigate their interest.

Composition of the nuclear island: P137 Fig. 7.55 – there is some reference here and within the text to an idea of classical composition in terms of the symmetry of the layout of the setpiece buildings on the Conventional Island and their use of a vertical ordering of facades, incorporating the language of plinths, for example, and a hierarchy of scale. It is one way of describing the site organisation of form, massing and position and it is supposed it can be suggested that the geometric configuration of the layout and composition of buildings is translated into the geometry of their applied appearance. This ensures that there is a continuity of a concept-derived approach in the through-design which provides coherence and we welcome the degree of consideration that has been applied in this regard. It is just that we would not use the word classical here.

P147 Fig. 7.69 – in terms of building layout and sense of arrival onto the platform, it is curious to the ESC that what faces you directly on approach is the Contaminated Tools store which is a fenced compound to store ISO containers. Perhaps it really is an important space in this position (easy transport access?), but we are uncertain of the rationale for the building/spatial sequence here, other than that we can appreciate the position of the Main access building adjacent.

The design for the Main access building does appear rather underwhelming. As a kind of 'gatelodge' to the Sizewell Estate (as it were), it could be a refined and attractive design in its own right. Not everything outside of the set pieces needs to be simplified and strictly utilitarian.

OSC: P139 Fig. 7.60 – we like how the elevational treatments of the OSC do respond to their differing orientation, internal spaces behind and their function, and articulation and modelling. These are key to the design of a building which is described here as the ‘*conceptual heart*’ of the site (para. 7.15.1, p136) and which provides the ‘*primary space for human habitation within the operational platform*’ (para. 7.15.4, p137). This highlights the architectural and social importance of the building. The figure illustrated here does show a refined and sophisticated approach with depth of thought and consideration applied to ensure a good design outcome. These are aspirations that we would wish to see applied to any design of a major development and it is appropriate to see them applied here; and welcome to see them being potentially achievable. ESC can support the approach set out here.

Accommodation Campus: P248 para. A.30.3.5 – clearly, the appearance of the accommodation blocks has not yet been detailed, although their plan form, plan positions and layout have been. Their form and scale will be repetitive, and it is interesting to note here that the possibility of modular construction is being considered. This must be relevant also in the context of the removal of these buildings at the end of the construction period and the ease by which that can be undertaken.

It is noted that the local vernacular is referenced here in terms of materials and colour palette, although we are uncertain how the former will lend itself to a modular form of construction that will have a contemporary appearance – red brick, render or flint. We consider that it will be more important to ensure that a locally responsive colour palette is employed to provide some level of complementarity to the local surroundings. These blocks will not be permanent features of the Suffolk countryside in this location and we are less concerned about the materials choice. Indeed, that choice should relate more closely to the nature of construction - if it will be modular, for example.

P249 – the Figures here provide a useful 3-D visual illustrative guide to the massing and form of the accommodation blocks. Recessed glazed stairwells will provide relief and articulation to the form and facades. Window openings will be paired where possible, to avoid the monotony of a motel-like repetition of identical windows in identical positions. We welcome these positive design considerations in respect of appearance. Flat roofs will serve to restrain the scale of these blocks (most of which are 4 storeys in height). It is appreciated that the illustrations here do not show a finished design, but we welcome that thought is being given to other appearance considerations in terms of window and materials treatment. If modular construction is employed, it will become critical to avoid a kind of stacked portacabin effect. That would provide a very dispiriting kind of effect for occupants of the site to put up with for many years. The final finished appearance needs careful consideration.

It is understood that the site layout is now fixed in terms of disposition of the accommodation blocks, recreation centre, access and routes, and the decked car park. We agree with the east-west building orientations in respect of localised impacts; and consider the alternating pattern of access streets and green streets attractive. We judge that sufficient consideration has been given to the quality of intervening space,

traffic distribution and habitable conditions for occupants. There is clear evidence that landscape proposals have been incorporated into the layout from an early stage.

The long site edges will consist primarily of the access road to the west; and a recreation/fitness footpath to the east, buffering the countryside edge. The southern edge includes the Upper Abbey Farm site. The accommodation campus will clearly have a landscape presence that is unavoidable.

In that this layout is not for permanent occupation, it is not reasonable to apply the usual urban design principles to it. It has specific characteristics that will make it unlike any other major residential development, clearly, and these must be considered when judging the quality of this proposal. Unlike the Design Council in their review of the campus, we have no concerns about the quality of the design proposal as presented here and do not understand their comments about legacy, when there will be none.

P250, para. A.30.11 – it is agreed that the use of a muted colour palette for the recreation building is appropriate. This structure (and others) needs to be restrained in its appearance, particularly given its impressive scale.

P253, para. A.30.18 – the choice of edge treatment to the decked car park will be critical in terms of views to it from the surrounding countryside and adjacent road; and also from within the site and accommodation blocks adjacent, for which this will be their principal aspect. The suggestion here of vertical timber slats as a form of cladding does sound worth testing, as it is an attractive choice of material and will help towards mitigating what will be an unappealing urban building of enormous scale.

P253, para. A.31 ff – it is judged that the Colour Strategy that is outlined here is well considered and one that we can subscribe to. We agree that some colour relief from the dark palette of the accommodation blocks will be needed and the suggested choice of entrances to provide this is appropriate.

Permanent structures at Upper Abbey Farmhouse: P255, paras. A.36.2-4 – we have no objection to the removal of the modern building to make way for the emergency equipment store; or the removal of the modern building to the south of the stockman's house, both at the Upper Abbey Farm group. As stated here, neither of these structures has any historic value.

There will be adverse impacts arising from the proposed accommodation campus on Upper Abbey Farm, Abbey Cottage and Potter's Farmhouse in respect of this scale of development within their respective settings – particularly for Upper Abbey Farm and Abbey Cottage which are in such close proximity. These will be caused by the scale and extent of built form, engineering associated with transport and access infrastructure, and change in the character of the landscape in this area of it. These impacts will give rise to a low-to-moderate magnitude of harm to the significance of these designated heritage assets which will be significant. Their duration over the medium term of the construction phase (10-12 years) does not mean their transient nature should be

discounted. We do, however, judge that the impacts on Upper Abbey Farmhouse are sustainable because it forms part of the EDF Estate already and is not currently occupied as a pair of dwellings. The proposals that directly affect the Upper Abbey Farm group (addition of buildings) are already accounted for in heritage commentary.

Pylons: SZC Co. propose an overhead line (OHL) solution to exporting power from the turbine halls to the National Grid substation, this includes additional pylons x 4. This change to their proposal emerged in the later stages of public consultation, prior to that time it had been understood that all power cables were to be undergrounded on the Sizewell site. However, SZC Co. have now put forward the case for OHL on the basis that the footprint of the site is not big enough to accommodate the galleries and tunnelling that would be required to accommodate undergrounding of these lines. In addition, constraints to the site boundary are difficult to overcome in that the route from Unit 1 would require unacceptable works in close proximity to the Sizewell B site which would not be supported, potential routes from Unit 2 would require enlargement of the platform to the north leading to further loss of land within the Sizewell Marshes SSSI, this would not be acceptable to ESC.

ESC is disappointed that an alternative solution to OHL has not been found to be deliverable without adversely impacting on the SSSI or safety with regards to Sizewell B, however, we would support further work in this area and the potential for removal of the pylons should an alternative solution present itself as available. However, we would not support further encroachment into the SSSI, nor would we support any option that involved further encroachment onto the Sizewell beach (eastwards). Increasing the platform eastwards would push the proposed HCDF (sea defences) towards the sea which would adversely affect existing predictions and monitoring and potentially result in the HCDF becoming exposed earlier than currently predicted.

ESC reluctantly accepts that the SZC Co. solution of four pylons, two at 48 metres and 2 at 65 metres would be the least worst option, however, this will adversely impact on the landscape and therefore we expect appropriate compensation within the proposed AONB Fund to compensate this approach.

LVIA

Construction Phase

Even allowing for embedded mitigation measures within the design, construction works are considered likely to result in **significant adverse effects on local landscape character** types within and adjacent to the site. These include Estate Sandlands, Coastal Levels, Ancient Estate Claylands, Coastal Dune, Shingle Ridges, and Nearshore Waters due to the removal of existing key landscape features and views of construction activities.

Significant Adverse effects on landscape and seascape character during construction would occur within the AONB as follows:

- Estate Sandlands landscape character type (LCT)

- Coastal Levels LCT
- Coastal Dunes and Shingle Ridges LCT
- Ancient Estate Claylands LCT
- Nearshore Waters seascape character type (SCT)

Significant adverse effects on visual amenity during construction have been identified for views at:

- Westleton Walks and Dunwich Heath
- RSPB Minsmere
- Coastal strip between Dunwich, Minsmere Sluice and Beach View holiday park.
- Eastbridge and Leiston Abbey
- Areas within NW section of main development site which remain accessible to the public.
- Sizewell Belts
- Views from offshore.
- These include effects on the visual amenity of the Suffolk Coast Path and Sandlings Walk.

*It is claimed that these landscape and visual effects would only occur over localised sections of the AONB and Heritage Coast and so the effects during construction on these designations as a whole are therefore assessed as **not significant**.* This seems to a highly dubious and unsatisfactory conclusion and at best one of only passing academic interest as far as the AONB as a whole is concerned.

The far more likely conclusion is that the impact on the *coastal and coastal hinterland* aspects of the designations are of notable adverse significance in a localised section of the AONB. These need to be further reviewed and the extent of these effects fully understood.

Major and Major-Moderate Adverse visual effects would occur over a range of public access viewpoints in the vicinity of the site and construction laydown area. These include the majority of the Minsmere Levels and the southern section of Dunwich Heath adjacent to Coastguard Cottages, as well as the coastal section between Dunwich Heath and Minsmere Sluice. Slightly lesser effects but still Significant would be experienced on walking routes through Sizewell Belts, the Walks, Sizewell Gap, and in nearshore waters up to 2km offshore.

Night-time effects during the construction period are anticipated to be major or major-moderate across a wide range of landscape, seascape and visual receptors during the construction phase.

In respect of AONB Special Qualities, large and medium scale effects are recorded for landscape quality, scenic quality, relative wildness, relative tranquillity, natural heritage features, health and wellbeing (footpath users). Whilst notably localised in some cases, in others, effects are predicted for a distance of up to 3km from site.

On top of the described impacts and effects on landscape and visual receptors, this list of effects on AONB special qualities would seem to point to significant impacts on the AONB and the purpose of the designation. Similar localised but nonetheless significant adverse effects on the Heritage Coast can be anticipated. **Further review required**

Ecology

Sizewell Marshes SSSI: The ES concludes that impacts on Sizewell Marshes SSSI are Minor Adverse, Not Significant. This is based on onsite mitigation measures during construction and the delivery of compensation habitats at Aldhurst Farm (reedbed and ditches), Benhall (fen meadow and potentially wet woodland) and Halesworth (fen meadow and potentially wet woodland). There is also the potential for the creation of 0.7Ha of wet woodland in the northern part of the Sizewell Estate alongside the creation of a water storage facility. Whilst it is understood that the ES conclusions are based on the identified compensation measures being successful, no recognition is given to the difficulty in creating some of the required habitats. In particular creation of fen meadow, suitable to compensate for the high-quality habitat which would be lost, is likely to be extremely difficult if not impossible. The assessment of impact should recognise this difficulty in the assessment of the significance of the impact.

Also, the ES makes reference to a financial contribution to be made if fen meadow creation fails. However, there does not appear to be any further detail available on what this would be used for, how it would be secured or how it would be triggered (or over what time period it would be available).

SSSI Crossing: With regard to direct loss of SSSI, the SSSI Crossing option selected (embankment and culvert) is not considered by the Council to be the least impacting available technique as it involves a greater amount of direct land take from the SSSI than a bridge option and will adversely impact connectivity for species moving between Sizewell Marshes SSSI and Minsmere (particularly species such as water vole, birds and invertebrates).

Also, whilst not detailed on the SSSI citation, wet woodland is a component of the site which supports a number of the invertebrate species for which the site is designated. Whilst some wet woodland creation potential is identified, this is not sufficient to compensate the amount of wet woodland to be lost (2.6Ha).

SZC Co. own design principles seek to 'minimise the likely significant adverse biodiversity effects' and 'seek to retain areas of habitat connectivity and continuity as far as possible within the EDF Energy Estate', the culvert crossing the SSSI will sever the vital ecological connectivity for a wide range of species, including European Protected Species (EPS). However, from a landscape perspective there could be benefits with a planted causeway crossing and from a flood defence perspective it would be simpler to defend a culvert in the future should sea level rise necessitate this. However, on the basis of the information provided in the DCO, we have concerns with

the SSSI crossing from an ecological connectivity perspective and we would ask that SZC Co. consider further the opportunities for an alternative that would better suit from an ecological perspective.

Sizewell Levels County Wildlife Site(CWS): The ES identifies that the loss of part of this site as a Moderate Adverse, Significant impact, however no specific compensation measures are proposed to address this.

Suffolk Shingle Beaches CWS: The ES identifies that the long-term presence of the station sea defences will result in a Moderate Adverse, Significant impact on this CWS, however no additional compensation or offsetting measures are proposed to address this.

Bats: The ES concludes that construction, even with identified mitigation measures implemented, could cause local population extinctions due to fragmentation of foraging/commuting habitats. However, it then concludes that overall these impacts are only Minor Adverse, Not Significant as they can only occur during the construction phase or that the impact only occurs on populations present at Sizewell and not the whole County population (this is the ES conclusion for Natterer's). It is not clear how this overall conclusion has been reached, particularly given that several of the bat species populations present in the Sizewell area are considered of County or National importance in EIA terms (Barbastelle – National and Natterer's – County). It is these individual populations that are assessed as being this important, it is not the County or National populations, and therefore e.g. concluding that the potential extinction of the Sizewell Natterer's population is Minor Adverse, Not Significant because it is not the County population going extinct is an incorrect conclusion and is not justified.

The construction phase will last at least 9 to 12 years in which time there is a significant and real risk that extinctions of local bat populations could occur. In particular the following populations are at the most risk, Barbastelle (because of the likely relatively small population size, the presence of a confirmed breeding population meaning that habitats are likely to be more important at more critical times of the year, the observed home ranges on site being considerably smaller than the Core Sustainance Zone (CSZ) in the literature, their prey requirements and their aversion to lighting); Natterer's bat (because of the presence of a confirmed breeding population meaning that habitats are likely to be more important at more critical times of the year, the potential for the loss of up to 60% of identified core habitat areas and their aversion to lighting); brown long-eared bat and Daubenton's bat (because of their relatively small CSZs, reliance on linear features, aversion to lighting and the presence of a confirmed breeding brown long-eared bat population meaning that habitats are likely to be more important at more critical times of the year and they would be separated from roosting and foraging habitats by the construction area); Common and Soprano pipistrelle bats (whilst these species are relatively more common, they have small CSZs and require linear features in the landscape to navigate and are therefore more susceptible to the impacts that are likely to occur from the construction). The

proposed mitigation for bats also relies, to some extent, on species such as barbastelle being able to undertake a wider commute further to the west therefore avoiding the construction area. However, survey work for the Sizewell Link Road identifies that habitats to the west of the Main Development Site are of relatively poor quality for bat commuting/foraging and that the construction and operation of the Sizewell Link Road will exacerbate this. It therefore appears highly unlikely that, under the current proposals, some bat species will be able to use habitats to the west in sufficient numbers to maintain their populations.

This is not an acceptable outcome and cannot be considered to only be Minor Adverse, Not Significant. Further habitat mitigation and compensation measures are needed to address this impact, including strengthening the available commuting and foraging habitats to the north, south and west of the construction area and the provision of additional roosting (including hibernation) opportunities in these areas to allow the populations to reinforce themselves should habitat fragmentation lead to a splitting effect.

With regards to impacts on roosting habitats, whilst the approach of basing the assessment of impact on the available roost resource rather than the availability of individual roosts appears logical there does not seem to be sufficient information presented to show what the available roost resource is considered to be. Without this it is not possible to properly assess the conclusion that loss of roost resource will only result in a Minor Adverse, Not Significant impact.

Water Vole: The ES concludes Minor Adverse, Not Significant impacts based on displacement of animals to adjacent habitats and translocation to Aldhurst Farm. Does not consider that fragmentation of populations by SSSI Crossing is significant as water vole may use culvert and even if they don't Sizewell and Minsmere populations are robust enough to survive on their own. However, the amounts of water vole habitat impacted by construction quoted in the ES appear significantly smaller than those set out in the Water Vole Mitigation Strategy Appendix. In particular the receptor site at Aldhurst Farm is much smaller than the amount of habitat to be lost from the SSSI, and with no improvement of the culvert under Lovers Lane the existing fragmentation between Aldhurst Farm and the SSSI will be exacerbated by adding more animals to what would effectively become a third discrete population. Therefore, disagree that this is only a Minor Adverse, Not Significant impact.

Reptiles: The ES concludes Minor Adverse, Not Significant impacts. This is probably correct, provided that it can be demonstrated that the receptor sites are ready to accept animals (and haven't already been colonised). Robust monitoring programme (during construction and operation is required to ensure mitigation strategy is working, particularly for snake species).

Natterjack Toads: The ES concludes Minor Adverse, Not Significant impacts. Colleagues at the Suffolk Wildlife Trust (SWT) are seeking further expert advice on the mitigation strategy proposed for natterjack toads. At this stage the proposal seems to

be suitable but we will need further clarification in relation to this and will wait for further advice from colleagues at SWT.

Air Quality

An air quality assessment of impacts at the construction workers accommodation campus has not been provided. This will be required in order to be satisfied that the stockpile and borrow pit areas will not have an adverse impact on residents of the campus. It is noted that a construction dust assessment and associated vehicle movements have been presented in the air quality assessment but not with specific reference to occupiers of the campus.

CHP: An assessment of CHP from the campus has been provided. The CHP has not been finalised, if emissions from the CHP increase it is expected that an additional air quality assessment should be provided. In addition, the in-combination impacts with the emergency diesel generators has not been provided at the campus and nearby residential and ecological receptors.

Construction: Previously concerns were raised with regards to air quality and specific construction elements, only some of these have been included in the DCO submission.

The DCO provides some information on dust mitigation during concrete batching, although it is expected that the Environment Agency will set conditions/requirements necessary to mitigate concrete batching impacts. In particular, additional mitigation to offset impacts from strong coastal winds.

Further detail has previously been requested with regard to the location of the concrete batching facility and the Bentonite farm, to be located away from sensitive receptor. This detail is still outstanding in the submitted DCO documents.

Assessment of construction dust deposition – previous concerns centred around the use of Wattisham meteorological data being an inappropriate comparison due to its inland position not taking into account higher average wind speeds in a coastal location. Further information from SZC Co. is awaited regarding this, dependent on what is received the impacts and necessary mitigation may need to be altered to avoid dust nuisance. However, it is likely that ongoing monitoring will be required in relation to dust deposition. The Dust Management Plan should include a local weather station to be installed near the large stockpile so actual wind conditions at the stockpile are used to inform working.

To enable further assessment of construction dust assessment, SZC Co. has been asked to provide further information on construction vehicle weight assumptions in order to understand whether the calculated emission rates are conservative or not. Dependent on SZC Co. response this may alter impacts and necessary mitigation.

Stockpile erosion – a stockpile of the size proposed will be susceptible to wind erosion. However, we are not clear that of the assumptions are evidenced base, we requested further detail on the calculation of erodible material % in each stockpile, and this detail is still awaited. The outcome of this may alter impacts and necessary mitigation. In addition to this, the full workings of friction velocity needs to be provided and this is still awaited from SZC Co., the response to this may alter impacts and necessary

mitigation. The analysis of air density and shear stress is required to calculate the friction velocity.

For onsite car parking provision of up to 1000 cars and the 1300 capacity car park for the campus, mitigation within Sizewell C's Code of Construction Practice is considered suitable.

There is no further specific construction dust impact of the National Grid station included in the DCO. We are not expecting there to be a separate application from National Grid so these measures should be incorporated in the DCO. However, in relation to Sizewell B relocated facilities we would expect dust nuisance impacts to have been captured in the submission.

The Code of Construction Practice measures are considered adequate for the construction of the power station access road.

Marine launch chamber – no reference to this within the DCO, clarification is required as whether these structures have been removed from the construction proposals.

Haul road - within Table 4.2 of the Code of Construction Practice screens and barriers are recommended for haul routes within 50 metres of sensitive boundaries. This is considered good mitigation although it is requested that consideration should be given to hard surfacing haul routes within 50m of both human health and ecological receptors to reduce the likelihood of dust nuisance. Ideally a DCO requirement will require construction contractors to agree mitigation in advance of works, at which hard-surfaced haul routes could be implemented. Dust nuisance risk with currently proposed mitigation is minimal, and hard-surfaced mitigation is recommended to lower the risk further at source.

Within volume 2 main development site, chapter 12 air quality figure 12.1-12.2, it appears that zone A-C, which have been identified within the trackout assessment of the construction nuisance assessment cover all the haul routes associated with the main development site. The haul routes associated with the main development site can be established by reviewing figure 3.5 within Volume 2 main development site, chapter 3 description of construction.

However, there should be a specific requirement within the CoCP for the reassessment of high risk locations should there be a realignment of haul routes. Thereby identifying locations where additional haul route mitigation within Table 4.2 of the CoCP applies, in addition to hard surfaced haul routes. This should be agreed pre-consent.

Earth bunds / stockpiling of excavated material - it is requested that stockpiles and earthbunds are turfed and fenced/screened in locations which are within 350 metres of sensitive human health and ecological receptors to minimise wind whipping of loose bund or stockpile material. Ideally a DCO requirement will require construction contractors to agree mitigation in advance of works, at which combined fencing and turfing could be implemented. Dust nuisance risk is minimal with current mitigation and combined mitigation is recommended to lower the risk further.

Construction buildings - for construction buildings or buildings for construction worker welfare and offices, these should be pre-fabricated to mitigate any dust nuisance. Ideally a DCO requirement will require construction contractors to agree mitigation in

advance of works, at which pre-fabricated buildings could be implemented. However, dust nuisance risk is minimal with current mitigation and pre-fabricated mitigation is only recommended to lower the risk further.

Non-Road Mobile Machinery (NRMM) – SZC Co. has carried out an assessment of NO_x emissions from dump trucks and CAT777s using haul routes. However, there will be substantially more NRMM in use at the different construction zones - e.g. mobile generators and cranes. Experience at Hinkley Point indicates that this could amount to tens of MW of unabated diesel generator plant. Air quality impacts from other NRMM have not been assessed. Furthermore, the Air Quality Assessment envisages the use of Stage IV controls where possible, which are not the best currently available NRMM emissions controls standards

The number and capacity of NRMM plant required for the main development site and associated developments should be estimated. Impacts should be mitigated through (a) the use of electrically powered plant when feasible, confirming the point when this can be introduced, (b) the use of NRMM conforming to Stage V emissions standards (requiring the use of Selective Catalytic Reduction technology), and (c) avoiding the deployment of plant close to site boundaries where possible. Emissions of NO_x, PM₁₀ and PM_{2.5} should be calculated based on the lowest tier of emissions control envisaged, and impacts should be assessed using appropriate screening and/or modelling methods. The means for enforcing use of low-emitting plant should be specified. Cumulative impacts of NRMM with emissions from dump truck/CAT777 and construction traffic movements on public roads should be assessed.

Plant and associated abatement for generators – SZC Co. suggest that that the proposed combustion plant will not be subject to the requirements of Industrial Emissions Directive because of operational requirements which mean that emissions from the plant cannot be discharged through a single point. It is further suggested that the plant would not be subject to the requirements of the Medium Combustion Plant Directive. In view of the potentially significant impacts due to emissions from the proposed combustion plant at nearby internationally and nationally designated habitat sites, it may be beneficial for the applicant to reconsider this approach, and to adopt lower emitting plant, in order to assist in eliminating the risk of significant impacts on the integrity of nearby habitat sites. We await further input from the Environment Agency on this matter.

Mitigation of lime / dust translocation during lime spreading – due to the proximity to ecological receptors this is a risk activity for ecological receptors, SZC Co. include some mitigation to offset the risk but the Dust Management Plan needs to include site specific mitigation of lime treatment, SZC Co. response to this may alter impacts and necessary mitigation.

Sensitive locations should be highlighted in the Dust Management Plan such as the Sizewell Marshes and Minsmere Marshes SSSI and monitoring agreed at these

locations. A list of dust nuisance and ecological receptors should be in the Dust Management Plan to ensure suitable monitoring and mitigation.

Drainage

We need further detail and clarification in relation to the infiltration basin in Water Management Zone 1 with regards to future coastal and flood risk. We expect consideration to be given to rainwater harvesting for water that would otherwise be discharged via the Combined Drainage Outfall into the sea (CDO). The CDO can discharge up to 1 in 200 rainfall so this would minimise storage due to lack of space.

Prior to construction of the CDO the water is discharged to Water Management Zone 1 or 2, it is not clear if this is treated prior to transfer nor why this cannot continue during the rest of the construction phase.

We are concerned that by lining the Water Management Zones this classifies them as ponds which results in pollution mitigation implications.

Documentation states that Water Management Zones 1, 2, 3 and 6 will discharge to ground and watercourse – we would ask why they cannot solely infiltrate to ground?

There is a temporary water storage area to be removed upon completion of construction, it is likely there is legacy benefit in keeping this for agricultural use and we would encourage this option.

Sizewell B Relocated Facilities

This Council notes that the plans submitted for the relocation of facilities at Sizewell B are the same as those previously consented by ESC under DC/19/1637/FUL, however, a pedestrian route from the outage car park in Pillbox Field through the SSSI was removed from that application but is still shown in relation to the DCO, we cannot support this element of the proposals.

We are also aware that given the proposals are to be considered together at this stage we would welcome any opportunities to reduce greenfield development within the AONB for the DCO, we would suggest that this could be achieved by a shared outage car park or shared training centre. We would ask that any opportunity to reduce additional development in the AONB be taken by SZC Co.

Land east of Eastlands Industrial Estate (LEEIE)

Drainage

It does not appear from the layout proposed that SuDS have been prioritised for this site. There is a potential flood risk to Valley Road from this site that needs to be incorporated into the surface water flood design. There is concern that discharging to open watercourses at a controlled rate does not prioritise SuDS.

The LEEIE has stockpiles proposed in topographic low spots which gives a reduction in on site storage. The site relies on below ground crated systems and conveyance to off site surface water attenuation feature with treatment likely to be using proprietary products with no indication of how flows will be intercepted without presenting a risk to Valley Road. This does not represent a SuDS approach and presents a potential risk to Valley Road. We need a lot more detail including more detailed proposals for

pollution treatment and surface water flood risk during flashy storm events with silt laden runoff.

SZC CO. acknowledge that there is potential for sediment transfer to SuDS and associated flood risk, we disagree that the potential increase in flood risk is only 'Minor'.

There is an unacceptable reliance on maintenance to mitigate these concerns, this would not be feasible for flashy storm events where the consequences will be the worst.

Sizewell Link Road / Yoxford Roundabout

Design

There are some issues with the layout of the Sizewell Link Road and potential adverse impacts on settings and views from existing properties. However, we recognise the benefits that the Sizewell Link Road can bring by becoming the dedicated HGV and ALL route to service not only the new C Station but the existing Sizewell A and Sizewell B stations. It will also provide an alternative route to Leiston. The new route proposed takes all HGV traffic related to the construction of Sizewell C out of the centre of Yoxford which is a benefit to the District.

This Council does not consider there to be any value in removing the Sizewell Link Road post-construction, this would then require the B1122 to revert back to being the HGV route to the nuclear power stations which would harm potential opportunities for converting this to a rural route suitable for cyclists and ramblers. As such, subject to an appropriate package of mitigation for properties sited along the route, this Council supports the Sizewell Link Road as a permanent addition.

Heritage

Sizewell Link Road: The DCO subscribes there to be no significant visual effects anticipated during operational phase on landscape character, construction impacts will be mitigated by management measures. However, there are a number of listed buildings whose principal elevations face towards the area or areas of proposed development and these must be considered.

The surrounding landscape makes an important contribution to the setting of these heritage assets which include a high proportion of farmhouses and a rural village. The proposed link road will represent a significant change in the setting to the built heritage assets because of the visual and physical addition of a new engineering feature; the urbanisation of a previously undeveloped landscape in the area and along the route of the road; associated traffic noise and vehicle movements; the partial loss of an historic field pattern by a road route that disregards it entirely; and partial loss of the dynamic seasonal attributes of a farmed landscape. Change will also arise from the interruption and realignment of the historic road pattern from Yoxford to Leiston where that is proposed. The effects of this are judged to be moderate adverse and significant, contrary to SZC Co. assessment of no significant adverse effects.

However, there will be beneficial effects to some heritage assets arising from displacement of some traffic from the B1122 onto the new road. There will be a modest improvement to the quality of the surroundings of the listed buildings in these villages and this will be a heritage benefit.

Construction of the road will irreversibly alter the surroundings to the detriment of Theberton Hall in terms of engineered features, erosion of landscape setting and traffic noise. These impacts need to be acknowledged and mitigated – adding tree planting to a landscape is not sufficient mitigation.

The assessment in the DCO in relation to Moat Farm cannot be agreed with – land to the north of Moat Farm is one of the earliest farming landscapes in Suffolk, to assess the construction of a new road through it as ‘low heritage significance’ with ‘no significant adverse effects’ cannot be supported.

Yoxford Roundabout: Yoxford Conservation Area which is a designated heritage asset has not been included in the scope for the chapter on the Yoxford Roundabout and Sizewell Link Road which is an omission. Limited/no harm to heritage assets during construction. No significant impacts during operation on conservation areas or listed buildings. The addition of a roundabout here will represent a change to this part of the Conservation Area but not one that will give rise to any significant adverse impacts. The designed mitigation should acceptable address localised adverse impacts in terms of embanking, hedging and field edges.

LVIA

Sizewell Link Road: Mitigation embedded in the design of this road scheme seeks to minimise loss of trees and hedgerows.

During construction it is claimed that there will be **no significant** impact on landscape character, (Review), but significant adverse impacts on some local visual receptor groups (5 out of 8) because of construction activity and height of plant above existing vegetation. Effects on remaining visual receptor groups, the special landscape area and long-distance routes are rated as not significant.

During operation it is claimed that there will be **no significant** impact on landscape character, (Review), because it is an improved scenario on construction phase but with construction activity removed. Visual effects are predicted to reduce with the withdrawal of construction activities, and as new planting matures to screen views of rising road and bridges and from bridges. **Significant** effects would remain for receptors in Group 5 would remain **significant** because of views from the Pretty Road overbridge, and also for Group 1 receptors because of lighting at night. Review.

Historic Landscape Issues – Theberton Hall former parkland area is cut through, including its western woodland screen belt. It is noted as a well-preserved example of a 19th C park with the design still legible and which contributes to the significance of the listed buildings. Hedgerows are noted as potentially of Importance under the Hedgerow Regulations, and yet described as being of low heritage significance as relic elements of the historic landscape. The new road will fragment the hedgerow network

which is a surviving remnant of the older landscape pattern. See para 9.4.44 which acknowledges that there is a good degree of field pattern continuity which can therefore be regarded as a historic landscape. The assessment of effects on landscape character will need re-assessing.

Yoxford roundabout: During construction it is claimed there will be no significant effects on landscape character. Tree and hedge loss have been kept to a minimum, as have changes to landform. Effects will be very localised. Similarly, applicable to visual receptor groups, long distance routes and SLA.

During operational phase it is considered that the situation would be improved by the removal of the contractor compound, so no significant effects position would not change, and indeed would improve.

Whilst this is largely accepted, there will be very localised effects which will create notable permanent change. Impacts on the Conservation Area and setting of Cockfield Hall need **reviewing** with the Council's Design and Conservation Team.

Ecology

Bats – The survey results for the Sizewell Link Road suggest that the habitats that it passes through are of relatively poor quality for commuting/foraging bats and that any bats displaced from the Sizewell Link Road area will find habitats in the surrounding countryside. However, this ignores the fact that one of the impacts from the Main Development Site is that bats from that area will need to travel further west to get around the construction laydown area. This would take them into the Sizewell Link Road area. If the area crossed by the Sizewell Link Road already contains habitats which are of relatively poor quality for commuting/foraging bats and the Sizewell Link Road will make this worse with woodland and hedgerow loss then this will exert an even greater pressure on the bat populations from the Main Development Site and make them even more isolated (see Main Development Site Bats section above).

Air Quality

An assessment of traffic on Sizewell Link Road/Theberton Bypass impact upon residential receptors has been considered. However, the methodological queries are unlikely to change the conclusions of the air quality assessment in other locations. No exceedances of air quality objectives have been reported within this area.

An air quality assessment of traffic changes upon air quality has been presented within the Yoxford roundabout. No exceedances of air quality objectives have been reported within this area.

Drainage

Sizewell Link Road: from the submission there is no certainty that there is sufficient space within the red line boundary for SuDS and any flood relief basins. There has been no infiltration testing in relation to the route and no sensitivity testing for discharging to open watercourses without increase in downstream flood risk. It is not clear what pollution treatment is required to treat surface water flows along the route. We need to see further evidence that sufficient space has been provided to ensure

drainage basins can comply with current guidance, we also need to understand how it is proposed for surface water from the northern side of the road to reach swales on the southern side of the road?

Yoxford Roundabout: We are concerned that the only proposal is for surface water to be piped to the infiltration basin, there is no secondary proposal, we need to be sure that the invert of the basin is enough to accept water from the roundabout. There is a well known flooding hotspot to the West of the roundabout location. We would prefer this site to prioritise the use of SuDS. It also fails to adequately demonstrate that the site is capable of appropriately intercepting and treating pollution from surface water prior to discharge.

Two-Village Bypass

Design

The Council supports the Two Village Bypass and recognises the benefits of the new road for Stratford St Andrew and Farnham and in relation to Air Quality improvements, there will be occupiers of properties close to the new route of the A12 that will be adversely impacted and we seek appropriate mitigation to address issues arising from predominantly noise and opportunities for additional landscape screening to nearest properties. However, on balance we support and welcome the Two Village Bypass.

Heritage

The impact of the Two-Village Bypass on heritage assets is considered to be minimal, by year 15 the impact will be very low due to screening maturity – although this may take longer the 15 years to reach adequate maturity. The Council has a concern that the Grade II Listed Hill Farmhouse is not included in assessment submitted with the DCO. This Council also disagrees with SZC Co. assessment that the Two-Village Bypass will have no effect on Farnham Hall – the proposed bypass has no regard for historic field pattern/boundaries which will be eroded, it will detract from rural character, the additional traffic will harm tranquil setting, and screen planting will accentuate the adverse effects, and create severance of Foxburrow Wood. This assessment needs to be reviewed and appropriate mitigation proposed, failing that a compensation package should be proposed by SZC Co.

This Council also disagrees with the assessment of impact on St Mary's Parish Church – this is a local landmark deliberately sited in a rural setting in undeveloped agricultural landscape which will be harmed by urbanising development in the form of a Two-Village Bypass. Again, this needs to be addressed in the proposal and appropriate mitigation put forward.

However, we do note the beneficial impact of the Two Village Bypass on Farnham and Stratford St Andrew – by taking the A12 out of these villages this enables restoration of the village setting in more tranquil surroundings.

The introduction of an engineered road bypass with the addition of an urban character roundabout on the edge of the registered parkland at Little Glemham Hall which is a designated heritage asset will have an adverse impact. The road layout will trample all over the field layout and its associated characteristics and does not relate to the pattern of roads, boundaries and property divisions that are characteristic of an

established and historic landscape. This assessment needs to be updated to reflect the harm arising from the new road on the registered parkland and a mitigation proposal needs to be prepared.

LVIA

Mitigation embedded in the design of this road scheme seeks to minimise loss of trees and hedgerows.

During construction it is claimed that there will be **no significant** impact on landscape character, (Review), but significant adverse impacts on some local visual receptor groups because of construction activity and height of plant above existing vegetation.

During operation it is claimed that there will be **no significant** impact on landscape character, (Review), because it is an improved scenario on construction phase but with construction activity removed. Visual effects are predicted to reduce with the withdrawal of construction activities, and as new planting matures to screen views of rising road and bridges and from bridges. **Significant** effects at night would remain for receptors at either end of the road from the lighting on the two roundabouts. Review.

Issues relating to setting of historic assets including Glemham Hall parkland and Farnham Hall seem to have been under assessed in terms of effects both during construction and operation. For example, no effects are recorded for the setting of Glemham Hall parkland. This conclusion seems to be based on a lack of visual connection between historic asset and its setting. This is unlikely to be a reliable conclusion and further review is required and liaison with the Council's Design and Conservation Team.

Ecology

Impact on Foxburrow Wood CWS – at its closest point there is only a 15m buffer between the Two Village Bypass and Foxburrow Wood. Whilst the ES recognises the importance of the wood, this buffer seems unlikely to be sufficient to prevent impacts on trees on the woodland edge, either during construction (through the potential for root damage) or in the future (due to the presence of the cutting restricting future growth).

New woodland planting – Whilst the proposed new planting would provide a net gain in the amount of woodland in the area, the ES assertion that it would be functional 10 years after planting seems optimistic. It is likely to take longer than this and therefore will not be contributing as much until later. Whilst this is not a reason not to support the planting, it should be part of the consideration when weighing its benefits against the other impacts of the Two Village Bypass.

Hedgerow loss – Whilst new hedgerow planting (at a greater level than that to be lost) is proposed as part of the scheme, this will follow the new road corridor and will therefore be largely perpendicular to the existing hedgerows that will be lost. Therefore, whilst the total amount of hedgerow planted is greater, it will not necessarily provide the same connectivity as is currently present in the landscape (e.g. between Foxburrow Wood and Pond Wood).

Floodplain Grazing Marsh – The scheme will result in the permanent loss of 2.91Ha of floodplain grazing marsh, a UK Priority habitat. No compensation for this loss is proposed and this is not acceptable. Compensation may be possible through habitat creation on parts of the fen meadow compensation sites which are not suitable for creating fen meadow, but this will need to be justified.

Bats – Part of the mitigation for loss of connectivity for bats is the proposal to allow tree canopy growth over the cutting in the vicinity of Foxburrow Wood. This does not seem practical (or safe) from a highways perspective?

The data provided for Associated Developments is vulnerable to challenge for the reasons set out above (1.62) and the significance of impacts has been seriously underplayed. Mitigation and compensation for the loss and severance of habitat must be more thoroughly considered as must be the long-term ownership and management of compensation habitat creation.

Air Quality

An air quality assessment of the two-village bypass final design has now been provided. There are specific comments regarding methodology within Stratford St Andrew with the potential to alter conclusions in this location. However, the methodological queries are unlikely to change the conclusions of the air quality assessment in other locations. No exceedances of air quality objectives have been reported within Marlesford and Little Glemham.

At this stage we have yet to receive clarification with regards to our concerns with the “Early Year” scenario which assumes no mitigation is in place. It is not clear what ‘no mitigation’ refers to – in particular, what assumption has been made regarding the two-village bypass. It is important to understand the “Early Year” assumptions in greater detail as this poses the greatest risk to air quality.

SZC Co. should provide greater detail on the assumptions within the “Early Year” scenario. This should include whether the two-village bypass has been included. In addition, what other committed developments and projects traffic flows have been included.

Total traffic flows from Sizewell C along the A12 at Stratford St Andrew should be broken down into workers cars, LGVs and Rigid/Artic HDVs. Further to this, source apportionment of Sizewell C’s traffic to total concentrations should be provided. This breakdown should include Sizewell C’s passenger car, HGVs, LGVs, and bus contribution.

Within Table 1.2 of transport emission assessment within volume 2 appendix 12b, the model under-predicts at STA8 by 48.2%, which suggests that modelling performance at STA8 has marginally deteriorated. Although improvements can be made in dispersion modelling. The post-adjustment performance meets

required metrics within LAQM.TG(16) local air quality management guidance. This issue will not be pursued further.

Further information on the dispersion model parameters in the transport emissions assessment - further information has been provided by SZC Co. in addition to the DCO submission that sets out a surface roughness of 0.3m, monin-obukhov length of 30m assumed within the dispersion modelling for the whole study area which spans Ipswich to Beccles. Whilst the suitability of these values varies from location to location, this is considered suitable for Stratford St Andrew. It is not anticipated that using different values would fundamentally change the outcome of dispersion modelling in other parts of the study area. This observation will not be pursued further at this stage.

Within the transport emissions assessment, volume appendix 12 table 1.3 the post-adjusted model performance has improved. That is after an adjustment has been applied to account for comparison between measured and modelled concentrations within Stratford St Andrew. The model now over-predicts in Stratford St Andrew by 1.2%. This is considered acceptable and no longer needs to be pursued.

Dispersion models are a way of simulating how emissions result in pollutant concentrations. It is important that the model is set up to reflect the actual circumstances of the emissions as closely as possible. In particular, if emissions vary during the day (as is often the case with road traffic emissions), the actual time of day emissions are released should be specified within the model to reflect the emission source activity. For example, if there were 1,000 annual daily average HDV movements associated with Sizewell C construction, which occur as 200 movements each hour between 7am through to 12pm. If movements were modelled as if they were spread evenly over a 24hr period, this would dilute the emissions released at the actual time of activity. Consequently, this approach is likely to be conservative for the annual mean although may not fully capture the short-term impacts.

It is likely that spreading emissions over a 24hr period, regardless of when emission activity occurs, is conservative for assessment against air quality standards with an averaging time of 24hr or longer. There are key areas where programming dispersion models to release emissions at actual time of activity would be preferred to confirm whether 24hr emission spreading is conservative.

These key areas are AQMAs within East Suffolk and the areas with suggested street canyon locations. It is requested that predicted 1-hour mean concentration due to construction traffic should be specifically modelled for comparison against the objective for the 99.79th percentile of 1-hour mean concentrations. Because of the specific nature of planned construction programme, LAQM TG(16)'s screening guideline of annual mean $60 \mu\text{g}/\text{m}^3$ as a proxy for risk of achieving compliance with the 1-hour objective should not be used. This is only requested

within the Stratford St Andrew AQMA during the early years scenario. Should this approach not be utilised justification should be provided.

For road traffic dispersion modelling emission calculations should reflect variations in speed as accurately as possible. Generally, the VISSIM traffic model should provide the necessary granularity in speed changes. This is important to reflect the local speed situation within the Stratford St Andrew AQMA, where the Council working with the Highway Authority (SCC) have moved a 50 mph speed limit to reduce NO₂ concentration. A speed survey undertaken within the local air quality management shows that speeds have not decreased as hoped, measures to lower concentrations within Stratford St Andrew by moving the 50mph speed limit may not have altered previous driving behaviour. In other words that vehicles have continued to accelerate to speeds greater than 30 mph. The speed survey showed that vehicles on average travelled at 34 mph, but were still being measured going at 50 mph and higher.

The emission factor toolkit (EFT) is the best practice methodology, amongst air quality professionals, for calculating road emissions. The EFT is a simulation of emission responses to varying speeds. Like any simulation or modelling exercise it is important to be aware of the limitations to ensure reasonably pessimistic emissions are calculated for road traffic.

The EFT's local traffic data inputs are vehicle numbers and speed, with no option to represent local vehicles accelerating, coasting or breaking. Although the EFT draws upon a database of emission measurement for specific speeds which have some consideration of acceleration, dependent on the road type e.g. urban and rural, it will not accurately represent the influence of acceleration between 30 to 50mph at Stratford St Andrew.

As the EFT will not best represent the effect of acceleration upon emission rates, simply using 50mph within the EFT may not be the most pessimistic calculation of emissions. As such a comparison of NO_x emissions calculated between 30 through to 50 mph should be undertaken to establish the speed which results in the highest NO_x emissions. The speed with the highest NO_x emission should be used for assessment within Stratford St Andrew AQMA.

A weighted annual daily average speed should be used to calculate throughout all scenarios. This is essential in reflecting the influence of large HGVs numbers upon daily average speeds in emission calculations. No further information has been provided within the draft ES.

To account for concerns that the 50mph speed limit sign location change has not altered driving behaviour. It is requested that the speed between 30mph and 50mph with the highest NO_x emissions is assumed for roads in and near the Stratford St Andrew AQMA. The annual daily average speed calculation should be weighted by the varying vehicle types.

Drainage

Infiltration testing in this location has not been completed so we are unclear at this point if all of the site for the Two Village Bypass can infiltrate. It is also not

clear if it is possible for all of the site to sustainably drain to an open watercourse. Further detail in relation to this will be required along with detail of how the water will be treated prior to discharge. We raise concerns with regards to the section of bridge proposed draining straight into the river – we need to understand further how these rates will be controlled and where any excess surface water would be stored prior to draining. Swales are proposed and we need further clarification as to whether they have sufficient capacity for both infiltration and attenuation options.

Northern Park and Ride

Design

The Council supports the principle of the northern park and ride in this location and we support removal of the roundabout access post-construction as not being of benefit from a legacy perspective. There are details in relation to the design that will need addressing but we are confident that these can be covered predominantly with requirements.

Heritage

From a heritage and conservation perspective there are no significant operational effects on assets including Grade II listed Old Hall and Oak Hall. However, at Oak Hall there will be a temporary impact of increased traffic around Northern Park and Ride, but this is only minor, however this is contrary to SZC Co. assessment of no harm.

LVIA

Anticipated **no significant** effects on landscape character during *construction*, partly through use of construction best practice, and minimised loss of trees and hedgerows

Review

There will be **significant adverse** visual effects during construction of Northern site for users of cycle way along Willow Marsh Lane, Main Road, minor roads and local residents to North and East of the site and immediately adjacent to it. Other visual receptors; non-significant effects.

During operation of the facilities, whilst it is acknowledged that effects from the presence and operation of the facilities would be more perceptible within the site and adjacent fields, **no significant** effects are anticipated on landscape character.

Views of northern park and ride perimeter fencing, lighting and taller vehicles may be seen from receptors within Group 1, which are anticipated to experience **significant adverse** effects during both the day and at night (due to the visibility of proposed lighting).

The effects on the visual amenity of all other receptor groups are considered to be **not significant**.

Ecology

The data provided for Associated Developments is vulnerable to challenge for the reasons set out above (1.62) and the significance of impacts has been seriously underplayed. Mitigation and compensation for the loss and severance of habitat must be more thoroughly considered as must be the long-term ownership and management of compensation habitat creation.

Air Quality

The general mitigation measures described here mostly seem appropriate. However, there is the potential for a large dust emission magnitude from earthworks at the northern park and ride. Only screens or fences are required for haul routes within close proximity to sensitive receptors. This should be extended to include general earthworks, construction or demolition. This could be resolved post-consent with a requirement for the construction contractor to agree works and mitigation in advance of commencement. Alternatively, this will need to be added to the ES submissions. Specific locations of concern can be provided if required by the Council.

We request for buses associated with Sizewell C to be zero-emission or ultra-low emission bus technology. No further information on this is within the draft ES. We request that buses used for Sizewell C are either electric or ultra-low emission vehicles, to minimise the air quality impacts of the bus fleet.

Drainage

It appears that there would be sufficient space for SuDS in this layout for either infiltration or attenuation – ideally we would support both, if it is attenuated this would need to be drained to an outfall for which we do not have details. We would need evidence of connectivity of the ordinary watercourses. We would also expect further detail in relation to sufficient pollution treatment being incorporated within the detailed design as well as the interaction of proposed bunds and ditches with surface water flood risk.

Southern Park and Ride

Drainage

The Council supports the principle of the southern park and ride in this location and the access to and from. There are details in relation to the design that will need addressing but we are confident that these can be covered predominantly with requirements.

There have been some identified potential adverse impacts for Wickham Market resulting from workers accessing the southern park and ride from the west by driving through the town. However, there are ongoing discussions taking place

with the Council, Highway Authority and Wickham Market Town Council with SZC Co. to agree a costed formal mitigation package for the town.

Heritage

From a heritage and conservation perspective there is no significant operational effects on assets including Wickham Market and Marlesford Conservation areas.

LVIA

Anticipated **no significant** effects on landscape character during *construction*, partly through use of construction best practice, and minimised loss of trees and hedgerows

Review

During operation of the facilities, whilst it is acknowledged that effects from the presence and operation of the facilities would be more perceptible within the site and adjacent fields, **no significant** effects are anticipated on landscape character.

The effects on the visual amenity of all other receptor groups are considered to be **not significant**.

Ecology

The data provided for Associated Developments is vulnerable to challenge for the reasons set out above (1.62) and the significance of impacts has been seriously underplayed. Mitigation and compensation for the loss and severance of habitat must be more thoroughly considered as must be the long-term ownership and management of compensation habitat creation.

Air Quality

The general mitigation measures described here mostly seem appropriate. With the Code of Construction Practice mitigation measures being suitable for the southern park and ride.

We request for buses associated with Sizewell C to be zero-emission or ultra-low emission bus technology. No further information on this is within the draft ES. We request that buses used for Sizewell C are either electric or ultra-low emission vehicles, to minimise the air quality impacts of the bus fleet.

Drainage

SZC Co. has not provided evidence that the site is capable of infiltration and there do not appear to be any watercourses within or adjacent the site to discharge into to. SZC Co. do not appear to have included adequate space for SuDS in their layout and we have concerns that their proposal severs existing surface water flows. They propose using attenuation crates beneath landscape bunds which would not follow the surface water drainage hierarchy, it is also not clear if sufficient treatment of surface water is included in the design.

Freight Management Facility

Design

The Council supports the principle of a freight management facility, although we have some reservations with regards to its location adjacent the Seven Hills junction of the A14 with the A12 – we consider there to be potential issues with additional HGVs on this roundabout particularly at peak times. However, we will take advice from Highways England and the Highway Authority with regards to the capacity of this junction.

Heritage

It is agreed that although Decoy Cottages, Nacton fall within the 1km study area, their setting is not impacted by the site for the freight management facility.

LVIA

During the construction phase, no significant effects on landscape character are anticipated although changes are noted. **Significant** visual effects are recorded for visual receptors in Group 1 (footpath users and local residents to SE) There is reliance on screening bunds to mitigate effects to SE and NW, although bunds maybe an intrusive landscape element in their own right, albeit temporary. These effects would also occur during reinstatement works, although no significant effects are recorded during the operational phase.

Ecology

The data provided for Associated Developments is vulnerable to challenge for the reasons set out above (1.62) and the significance of impacts has been seriously underplayed. Mitigation and compensation for the loss and severance of habitat must be more thoroughly considered as must be the long-term ownership and management of compensation habitat creation.

Air Quality

The freight management centre is now located close to junction 58. An air quality assessment of the freight management facility has been provided. No exceedances of air quality objectives have been reported within this area.

A dust nuisance impacts assessment has been provided for the freight management facility and the code of construction practice measures are considered acceptable.

Drainage

SZC Co. are proposing attenuation crates beneath bunds demonstrating that there is not sufficient space for SuDS on this site. They are reliant on a by-pass separator for treatment into infiltration swales. Although bypass separator is an extra control mechanism in the event of a spill, it does provide quantifiable treatment so further detail on a preferable solution is required here.

It is disappointing that SZC Co. have not yet carried out infiltration testing at this location as it leaves unanswered question, in particular, they suggest the ability to

discharge to watercourse but there is no watercourse adjacent to or within the site making this problematic. Further design detail and testing is required.

Green Rail Route

ESC supports the green rail route proposal for direct rail access into the main development site as this takes over-night rail movements from the centre of Leiston. However, there are still likely to be noise implications in relation to over-night rail movements that will need to be addressed. In principle, we support the green rail route as a temporary measure during construction. We would seek its removal and reinstatement post-construction as soon as practical.

Heritage

From a local authority heritage and conservation aspect we agree with the conclusion that there will be a significant adverse effect on the Leiston Abbey group from the construction of the rail extension towards its south and for the reasons stated by SZC Co. The construction of vast 2m high bunds and their associated 1.8-2.4m high security fencing along the edge of the bunds, rail route and the diverted public footpath should be added into the visual impacts arising. This Council would argue that the site proposed to host the bunds forms part of the surroundings in which the Leiston Abbey group is experienced. There is clear intervisibility from the entrance to the public footpath off Abbey Lane back towards the Abbey.

These bunds will not appear as natural landforms but as engineered features and these, plus the fencing, have the potential to detract from the landscape setting of the Abbey in that area of it. We agree that the proposed level crossing across the B1122 and what we take to be bunding following the road alignment along its western edge will interrupt approach views of the Abbey group when travelling northwards along the road. This will add into the significant adverse effect assessed here.

We also wish to add that in an appeal decision of 23.3.2016, a planning inspector advised that he agreed *'that the tranquil rural land between the appeal site and Abbey ruins is an important part of the setting which adds to the significance of the listed building.'* The appeal site is at Abbey View Lodges, currently under construction at the north edge of Leiston. The appeal reference is APP/J3530/W/15/3026060. We agree that the change in the noise environment during the construction and operation periods of the rail extension would result in a discernible loss of historic interest. That is because it will adversely affect what a planning inspector has already identified as the tranquil rural land south of the Leiston Abbey group which adds to the significance of the listed building. Noise levels are assessed here as being perceptible from the rail extension when in operation. The artificial bunds will provide some attenuation, but it must be acknowledged that there will be some adverse effect on the 'tranquil rural land'. This will also add into the significant adverse effect assessed here.

Whilst it is accepted that the rail extension and its associated infrastructure will be removed in the medium term, it is judged that this extended period of time during which the significant adverse effect identified in the assessment will endure, must be

taken into account by the decision maker. Whilst the harm caused will be temporary and reversible, the Council regards approximately ten years (for construction and operation) as a significant length of time over which harm to the setting of Leiston Abbey would be endured. Accordingly, we consider that the reversibility of the scheme should not be an overly influential factor in judging the proposed development.

However, the Council is content for others such as Historic England and English Heritage to judge the balancing merits of the mitigation proposed in the DCO.

It is noted that the Leiston Abbey group is the only built heritage asset assessed to have the potential to experience project-wide effects arising from the main development site and the rail extension route.

LVIA

During the construction phase, no significant effects on landscape character are anticipated although changes are noted. **Significant** visual effects are recorded for visual receptors in Group 2 (footpath users of routes that currently cross the site) These effects would also occur during the operational phase of the Green Rail Route, but not for any other groups of visual receptors, and also during the reinstatement phase.

Ecology

The data provided for Associated Developments is vulnerable to challenge for the reasons set out above (1.62) and the significance of impacts has been seriously underplayed. Mitigation and compensation for the loss and severance of habitat must be more thoroughly considered as must be the long-term ownership and management of compensation habitat creation.

Air Quality

Volume 9 Rail, Chapter 5 Air Quality presents the construction dust assessment, which refers to air quality mitigation within the Code of Construction Practice. The general measures described here mostly seem appropriate. However, only screens or fences are required for haul routes within close proximity to sensitive receptors. This should be extended to include general earthworks, construction or demolition. This could be resolved post-consent with a DCO requirement for construction contractors to agree works and mitigation in advance of commencement. Alternatively, this will need to be agreed with SZC Co. pre-consent. The Council can provide specific locations of concern if this is preferred.

Drainage

There are concerns raised with regards the green rail route and its interaction with the surface water flow path, potential deflecting from bunding and how swales will work with the bunding. It is probable that it will be reliant on off site discharge, there is no evidence provided to suggest that SuDs could be accommodated in the final design.

The rail extension crosses a number of ordinary watercourses and their associated flow paths, as such there are concerns with the proposed use of culverts – these would be objected to and we would prefer for the watercourses to be bridged.

It is stated that swales will be positioned between the landscape bund and the track, it is not clear how the swale would intercept overland flow if it is downstream of the landscape bund, we consider that this would deflect flows so more thought and detail is required in relation to this design.

The submission does not evidence that the space allowed for SuDS is sufficient for either a worst case infiltration scenario or a greenfield runoff rate scenario. Without this assessment it is not possible to confirm that sufficient space within the red line boundary has been allowed for.

Leiston

TO BE DISCUSSED WITH LTC AND LEISTON CLLRS

Leiston as the host town will have several specific local impacts that should be addressed by SZC Co. We are working closely with Leiston-cum-Sizewell Town Council (LTC), SCC and SZC Co. to promote a mutually acceptable range of mitigation measures that include highway improvements but will not be limited to highway improvements. LTC are currently formulating their own Relevant Representation and we have asked that they provide details to us so we can incorporate their concerns within this response. The expectation is that we will have that further detail prior to final consideration of the Relevant Representation by Cabinet on 21 September.

Ipswich Borough

TO BE DISCUSSED WITH IBC

We have expectations that a number of concerns relating to the Sizewell C project will have a similar impact on Ipswich Borough, largely in relation to potential impacts on housing supply and highway concerns. Highway concerns will be picked up by SCC as Highway Authority for the County, we are waiting to hear from IBC if they wish to contribute to our submission and the future Local Impact Report on areas of mutual concern.

Mid Suffolk District

TO BE DISCUSSED WITH MSDC

We have expectations that primarily highway concerns are likely to arise in relation to Mid Suffolk District Council boundary, as such SCC as Highway Authority will pick up on the majority of these. However, we have extended the invitation to Mid Suffolk

District Council to contribute to our submission if they choose to do so, a response is currently awaited.

Combined Impacts on Communities

TO BE EXPANDED

There may be in-combination effects on the labour market arising from other energy projects in the vicinity in the same timeframe – ScottishPower Renewables East Anglia One North and East Anglia Two as an example. These may have a cumulative impact on workforce and accommodation availability / pressures which also must be seen alongside other planned growth.

Cumulative and Transboundary Effects

TO BE EXPANDED

Heritage

The Scheduled Monument at Leiston Abbey First Site and Historic Landscape Character are the only heritage assets scoped in for assessment of potential impacts from cumulative effects by SZC Co.

LVIA

It is stated that effects at a project wide scale compared with the effects arising from individual project components are no greater in respect of landscape and visual matters. It is recorded that cumulative effects on historic resources are significant when the project is taken as a whole. This matter needs further review with the Councils technical experts in this area (Design and Conservation).

Other projects: the cumulated impacts with regards to other projects that may be under construction at the same time as Sizewell C is being considered, this includes the Lake Lothing Third Crossing, the Lowestoft Flood Barrier, Brightwell Lakes, East Anglia One North, Two and Three, and potential other major developments including SCC improvements to the A12, are being considered. In particular, from a transport, air quality, economic development, supply chain and construction worker availability perspective.

Monitoring, Mitigation and Compensation – TO BE EXPANDED

A programme of monitoring, mitigation, and compensation is being developed with regards to the Sizewell C proposals. This covers the majority of the areas summarised

above but specifically: ecology, air quality, transport, communities, skills, education and employment, public health / social services, and coastal geomorphology.

Ecology

There is a need for a robust, adaptive monitoring framework (overseen by a group of stakeholders) to cover all ecological receptors with crossovers to other disciplines and permitting/licensing regimes covered. This needs to be secured via DCO/S106 (as appropriate). It is important the ecological monitoring and mitigation strategy is adaptive to enable issues which arise during construction to be addressed.

Also, whilst the above is considered essential, it should not be used to “plaster over” areas where the assessment of impact presented in the ES is inadequate or where additional embedded mitigation measures could be delivered as part of the scheme (such as additional strategic landscape planting in the wider area for bats).

Any monitoring proposal must ensure it is supported by a means to provide contingency funding should further work be required.

Air Quality

Monitoring during construction works: within Table 4.2 it is mentioned that activity specific dust, PM10 and PM2.5 monitoring will be undertaken in accordance with the CEMP. Activity specific locations are located within construction zones A, B and C. As it is noted from experience there is the potential for considerable diesel NRMM. As such additional monitoring of NO2 at key locations within these construction zones should be carried out prior to and during the construction programme.

Communities

SZC Co. has stated on a number of occasions within their submission, that due to proposed mitigation, there will be “no significant effects”. This is assuming that all 7,900 anticipated workers follow and the instructions and mitigating provisions e.g. designated roads and routes; utilise the park and ride schemes provided etc., and assumptions made in terms of noise and pollution are correct. This assumption carries a potential risk to the quality of life of affected by local communities. 6.11/3.11 – “individual environmental impacts may not necessarily be significant”.

- 3.2 – 3.5 – e.g. predicted noise levels.
- 3.6 - Some cycle routes not significantly affected by the works.
- Table 3.8 summarises both significant effects and insignificant effect predictions resulting in no or little mitigation necessary in these situations.
- 8.5/14.7.4 “Potentially significant transport impacts have been dealt with by way of embedded mitigation within the development proposals”.

These are very bold statements and summary assessments and we will need to ensure there are robust monitoring schemes in place to ensure revisions to the Worker Code of Conduct or sanctions under the Worker Code of Conduct can be appropriately applied to manage the situation should workers not comply.

9.7.104 The Transport Assessment (Doc Ref. 8.5) assesses the peak traffic generation for Sizewell C on a weekday and identifies that there are “no significant delays caused as a result of Sizewell C across the modelled network, during the peak construction phase”. However, we know that the increase in traffic on the local network will adversely affect communities living around the development site and associated development sites, as such, there needs to be an appropriately managed and robust Community Fund to address some of the tangible effects that cannot be resolved through embedded mitigation but simply result from living in proximity to a major development of national importance.

As part of the community cohesion programme, a comprehensive strategy of integration of workers with the local community, mitigation of negative impacts and an extensive monitoring framework to adjust this strategy will be required.

Skills, Education and Employment

With regards to the proposals in relation to the labour market pool etc, there will be a requirement for a focus on monitoring and measurement of impacts. This must include how these are reported, when these are reported and how we can ensure that we have measurement that allows us to spot negative trends that could lead to reaching our upper limit thresholds and therefore require further mitigation. Contingency funding may well be required to enable a fluid approach to mitigation requirements.

Public Health / Social Services

An agreed schedule of monitoring and mitigation of impacts on public services and social services will be required throughout the construction phase of the development.