

APPENDIX 4 AN ASSESSMENT OF ANY POTENTIAL CHANGES TO THE ENVIRONMENTAL IMPACTS RELATED TO THE PASSAGE OF TIME

Table A4.1: Summary of Update to Impacts and Effects to Address Passage of Time on the Onshore ES

Topic	Methodology	Changes in the Existing Environment	Changes in Potential Impacts	Changes to Mitigation Measures	Changes to Residual Effects	Comments (if any)
Air Quality	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	Presumed reduction in background concentrations of potential pollutants in air as a result of on-going improvements in air quality	No changes in potential impacts	No changes to proposed mitigation. Note that EA have now published Environmental Assessment Limits for Amines.	No change to residual effects	No change required
Surface Water, Flood Risk and Water Resources	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	The Tees Estuary was considered a low importance receptor for morphology for NZT due to significant modifications of the channel, particularly along the banks, and with flow and tidal conditions being influenced by the Tees Barrage and breakwaters. However, given the numerous interventions that are underway in the catchment, including the Tees Tideland programme which is designed to mitigate the ongoing ecological impact of historical modification and be complete prior to the commissioning date of the proposed development, it is considered appropriate to raise the importance classification to medium for morphology.	No changes in potential impacts . No morphological impacts will occur to Tees Estuary and so the uplift in morphological importance does not translate to an increase in any impact or effect.	No changes to proposed mitigation.	No change to residual effects	No change required
Geology, Hydrogeology and Contaminated Land	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	Existing baseline conditions for geology, hydrogeology and contaminated land are considered to be the same . Future ground conditions may be improved relative to the existing baseline conditions as a result of on-going and future remedial works, where existing soil resources are treated/ remediated prior to commencement of the proposed developments.	No changes in potential impacts .	No changes to proposed mitigation.	No change to residual effects	No change required
Noise and Vibration	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	Changes to the baseline include the clearance of the site of the former Redcar Steelworks.	No changes in potential impacts.	No changes to proposed mitigation.	No change to residual effects	No change required
Terrestrial Ecology	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance. Comparison of baseline gathered for NZT with known baseline from ongoing work for other bp projects and site supervision of NZT GI work in interim period (2021-2); professional judgement	Habitats – minor habitat change only consistent with natural processes and inter-annual variation as described for the construction future baseline in Chapter 12: Terrestrial Ecology [APP-094]. Bats – progression of third party demolition works at Teesworks has removed all structures that would have required reappraisal for bat roosts. There are no potential bat roosting habitats requiring re-assessment. All other species – no change in habitat suitability for the species covered in the scope of Chapter 12: Terrestrial Ecology [APP-094].	No changes in potential impacts with the exception of: Reduction due to removal of buildings with bat roosting potential. Reduction as the third party site clearance activities at Teesworks have reduced the suitability of the PCC site for terrestrial species relative to the baseline.	No changes to proposed mitigation. Pre-construction update surveys of buildings (as the only potential roosting habitat) are no longer required given the progression of third party demolition works.	No change to residual effects	No change required

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Aquatic Ecology	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance. Comparison of baseline gathered for NZT with known baseline from ongoing work for other bp projects and site supervision of NZT GI work in interim period (2021-2); professional judgement.	Ponds and watercourses – only minor habitat changes are expected to have occurred for the 11 waterbodies scoped into the original assessment, consistent with natural processes and inter-annual variation – as described in the ‘Future baseline – Construction’ presented in Chapter 13: Aquatic Ecology and Nature Conservation [APP-095]. No changes in habitat suitability for species covered and no change in baseline anticipated	No changes in potential impacts .	No changes to proposed mitigation.	No change to residual effects	No change required
Marine Ecology	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance. The Hornsea 4 Off-shore Windfarm project referred to by the SoS is over 100 km from Tees Bay and screened out of any cumulative assessment for marine ecology	Since DCO submission in 2021 no changes in the marine environment within the NZT project area, which is limited to the Connection Zone area of Tees Bay, have been identified.	No changes in potential impacts.	No changes to proposed mitigation.	No change to residual effects	No change required
Ornithology	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance. Comparison of baseline gathered for NZT with known baseline from ongoing work for other bp projects and site supervision of NZT GI work in interim period (2021-2); professional judgement.	No significant changes in recorded bird assemblages. Recent (completed in 2023) habitat clearance and earthworks within Teesworks, close to Steelhouse has rendered habitat in this location less favourable for nesting birds overall; demolition of buildings and infrastructure within the northern areas of Teesworks immediately west of the NZT proposed PCC site has removed some habitat for nesting barn owl.	No changes in potential impacts. Further, the third-party site clearance activities at Teesworks have reduced the suitability of the PCC site and surrounding habitats for terrestrial breeding bird species relative to the baseline.	No changes to proposed mitigation.	No change to residual effects	No change required
Traffic	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	2019 baseline traffic data used in NZT assessment. The acceptability of 2019 baseline traffic data has been accepted by National Highways in the PINS Scoping Opinion for the proposed H2Teesside Development (published 17 th May 2023).	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	No change required
Landscape and Visual Amenity	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	There have been no changes to the assumed modified baseline (that took into account the demolition of structures on the Site) that would change the outcome of the landscape and visual amenity cumulative assessment.	Third-party site clearance activities at Teesworks have removed the remaining structures from the former Redcar Steelworks. However, no changes to potential impacts are anticipated as a result of this change.	No changes to proposed mitigation.	No change to residual effects	No change required
Cultural Heritage	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	Demolition of former Redcar Steelworks buildings and structures and subsequent site clearance	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	No change required
Marine Heritage	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	No change	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	No change required

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Socio-Economics	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	No change	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	No change required
Climate Change (Greenhouse gas emissions)	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	No change	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	No change required
Climate (climate change resilience)	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	No change	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	No change required
Climate (in-combination climate change impact assessment)	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	No change	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	No change required
Major Accidents and Natural Disasters	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	There are no changes to the existing environment.	A Major accident at potential future developments sites may result in a 'Domino Effect' with the Proposed Development, or conversely, a Major Accident at the Proposed Development may result in a 'Domino Effect' on these establishments.	No changes to proposed mitigation It is a requirement of the COMAH Regulations that neighbouring upper tier sites should review and update their off-site emergency plans and Safety Reports to take into consideration potential impact of domino sites, which could potentially include this Proposed Development. This ensures that domino effects are assessed in detail by major accident installations.	No change to residual effects	No change required
Population and Human Health	Review of existing information and professional judgement based on knowledge and experience of relevant current legislation, guidance.	NZT mostly uses Public Health England (PHE) data to demonstrate the baseline conditions in the area. This data was predominantly for the 2016-2019 period. More recent data is now accessible from PHE such as obesity rates, smoking prevalence, mortality rate from COPD, and physical inactivity up to 2021. Census 2021 data has also now been published which can demonstrate conditions such as age breakdown, ethnic group, educational attainment, economic activity, general health, and disability. Based on the information above, it is expected that there will be no changes to the assessment	No changes to potential impact.	No changes to proposed mitigation.	No change to residual effects	In November 2022, IEMA launched new guidance for considering impacts on human health which follows the standard EIA methodology of sensitivity and magnitude. Previous to this, there was no

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						<p>consolidated methodology or practice for the assessment of effects on human health. However, it is considered that the population and human health assessment included in the DCO Application is nevertheless robust.</p>