Dungeness B Nuclear Decommissioning

EIA Scoping Report (Appendices)

March 2026

Delivering a better world

Prepared for:

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Appendix 1A Statement of Competence

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1. Statement of Competence

1.1 Overview

1.1.1 The Environmental Impact Assessment (EIA) Scoping Report has been prepared by AECOM on behalf of EDF Energy Nuclear Generation Limited (hereafter referred to as 'the Applicant').

1.1.2 This Statement of Competence has been prepared to outline the relevant expertise and qualifications of those involved in preparing the EIA Scoping Report for the Dungeness B Decommissioning Project (the 'Proposed Works').

1.2 AECOM

1.2.1 AECOM is a leading provider of environmental services to a wide range of clients and development sectors in the United Kingdom. AECOM has a large and highly experienced team of EIA practitioners (approximately 160 staff) who have managed hundreds of EIAs and prepared Environmental Statements and other technical reports to accompany applications under various consenting regimes. AECOM also provides specialist EIA review services and training to a range of organisations, including government agencies. The AECOM EIA team is supported by more than 400 technical environmental specialists, covering a wide range of technical disciplines.

1.3 Institute of Sustainability and Environmental Professionals EIA Quality Mark

1.3.1 AECOM is a registrant to the Institute of Sustainability and Environmental Professionals (ISEP) EIA Quality Mark[1] and undertakes all EIA work in line with the associated commitments. The EIA Quality Mark is a voluntary scheme through which EIA activity is regularly independently reviewed to ensure it delivers excellence in: EIA management, EIA team capabilities, EIA regulatory compliance, EIA context and influence, EIA content, EIA presentation, and improving EIA practice. Many of AECOM's EIA Coordinators hold Practitioner or Full (Chartered) membership status with ISEP or are members of other appropriate professional institutions.

1.4 Competent Experts

1.4.1 Summaries of the qualifications and experience of the EIA Project Director, responsible for the checking and review of the ES, and the EIA Project

[1] Institute of Sustainability and Environmental Professionals (ISEP) (2024). Quality Mark. Available at: https://www.iema.net/corporate-programmes/eia-quality-mark. [Accessed 4 December 2025].

Manager, responsible for the coordination of the EIA, are presented in **Table 1-1**.

1.4.2 Summaries of the qualifications and experience of the lead for each technical discipline are presented in **Table 1-2**.

Table 1-1: EIA Project Director and Project Manager

EIA Project Director - BSc (Hons), MSc, CEnv, MIEMA, MIEEM
The AECOM EIA Project Director is a Technical Director with 29 years' experience in environmental consultancy coordinating applications for infrastructure projects. Recent project experience includes Sizewell C Nuclear Power Station and Immingham Green Energy Terminal.
EIA Project Manager – MSc, MEnvSci, CEnv, PISEP
The AECOM EIA Project Manager is an Associate Director with ten years' experience in EIA coordination for infrastructure projects. They are a Chartered Environmental and their recent project experience includes Sizewell C Nuclear Power Station, Connah's Quay Low Carbon Power Project, Immingham Green Energy Terminal, Tillbridge Solar Farm and Fosse Green Solar Farm.

Table 1-2: Technical Leads

EIA Technical Discipline	Qualifications, Professional Memberships, and Accreditations	Years of Experience	Summary of Previous Project Experience
Air Quality	BSc Environmental Science Member of Institute of Air Quality Management Member of Institution of Environmental Sciences	14	The Technical Lead for air quality has 14 years' experience working in air quality consultancy conducting and co-ordinating assessments for local authorities and developers. She leads the work within the AECOM air quality team on urban regeneration to undertake monitoring and modelling for clients to support screening, scoping and ES chapters for EIAs, as well as for Local Plans and standalone assessment reports. Relevant project experience includes: • Liverpool Street Station Development • 1 Undershaft • Wickside
Materials and Waste	BSc, MSc, MCIWM, CEnv, CRWM	17	The technical lead for Materials and Waste has acted as the discipline Lead on 25+ Nationally Significant Infrastructure Projects (NSIP) and a number of Town and Country Planning Act (TCPA) Environmental Impact Assessments within various sectors such as energy, road, rail and airport.
Coastal Processes	BSc, MSc, CEng, FIMarEST	32	The technical lead for Coastal Processes has acted as the discipline lead on multiple NSIP and TCPA EIA projects including the Mersey Gateway Bridge Crossing, Eastern Green Link 1&2 and Sea Link marine cables. Completed various technical studies for both conventional and nuclear power stations.
Climate Change	MEng, PhD, MISEP, CEnv	11	The Climate Change technical lead has acted as the discipline lead on a range of energy EIA processes across different sectors including H2 Teesside, Tillbridge Solar farm, Net Zero Teesside.
Historic Environment	BA, MA, PhD, Member of Chartered Institute of Archaeology	19	The Technical Lead for Heritage is a Principal Archaeological Consultant with 19 years of

EIA Technical Discipline	Qualifications, Professional Memberships, and Accreditations	Years of Experience	Summary of Previous Project Experience
			experience in the heritage field. He has led on several large infrastructure project whilst at AECOM, including most recently a Solar Farm in the Romney Marshes. He is also currently leading the heritage inputs on a road scheme in Medway, Kent.
Human Health	MA (Oxon), Member of the Royal Town Planning Institute	20	The Technical Lead for Health has 20 years of experience working on EIAs across a range of energy, infrastructure and mixed-use projects in the UK. This includes undertaking health and social impact assessments of NSIPs including East Yorkshire Solar Farm, Meridian Solar Farm, and Viking Pipeline.
Landscape and Visual	BA (Hons), MA Landscape Architecture, Chartered Member of the Landscape Institute (CMLI)	40	The Technical Lead for landscape and visual matters has 40 years of experience in landscape design and assessment. He has worked on the landscape and visual aspect of EIAs across a range of energy, infrastructure and mixed-use projects in the UK and abroad. This includes multiple NSIP projects as well as scoping reports for the decommissioning of several nuclear facilities.
Marine Ecology	BSc, MRes, PhD	17	The Technical Lead for Marine Ecology is an Associate Director with 17 years of experience delivering marine ecological assessments for multiple NSIP across sectors including energy, ports, and coastal infrastructure. Recent project experience includes: Tarchon, Sealink DCO, H2 Teesside DCO, and Baltic Power. They have also served as the marine ecology technical lead for offshore and intertidal surveys supporting major applications and environmental impact assessments.
Noise and Vibration	BSc (Hons), MIOA 20	21	The Technical Lead for Noise and Vibration is an Associate Director with experience on multiple

EIA Technical Discipline	Qualifications, Professional Memberships, and Accreditations	Years of Experience	Summary of Previous Project Experience
			NSIP and TCPA projects within various sectors including energy, ports and road. Recent project experience includes: Connah's Quay Low Carbon Power Project, Immingham Green Energy Terminal, Immingham Eastern Roll On Roll Off Terminal, H2 Teesside, Humber Zero.
Socio-Economics	BSc (Hons), MSc	18	The Technical Lead for Socio-economics is a Regional Director and has experience working on EIAs across a range of energy, infrastructure and mixed-use projects in the UK. This includes leading socio-economics and related assessments on a number of NSIPs including Immingham Green Energy Terminal, Tillbridge Solar Farm, Sunnica Solar Farm, and Viking Pipeline.
Soils and Geology	BSc (Hons), DIS, CSci	29	The Technical Lead for Soils and Geology is an Associate Director with significant experience with EIA process as a whole, including many DCO and NSIP projects.
Traffic and Transport	BSc (Hons) Member of the Transport Planning Society	19	The Technical Lead for traffic and transport specialises in transport planning, transport assessments, travel plans, transport infrastructure delivery plans, negotiation of transport contributions, transport modelling, and project management.
Terrestrial Ecology	BSc (Hons) MSc MCIEEM, CEnv Natural England Class Licence and Mitigation Licence Holder for Bats, Hazel Dormouse and Great Crested Newt	19	The Technical Lead for Terrestrial Ecology is an Associate Director with 19 years experience of delivering protected species surveys, project management and Ecological Impact Assessment for a wide range of large scale projects including renewable energy, residential, defence, water infrastructure, road and rail projects.
Water Environment and Flood Risk	BSc (Hons) PhD	15	The Technical Lead for Water Environment and Flood Risk is an Associate Director with experience on multiple NSIP and TCPA projects within various sectors including highways, rail,

EIA Technical Discipline	Qualifications, Professional Memberships, and Accreditations	Years of Experience	Summary of Previous Project Experience
			renewable energy, power and water infrastructure. Recent project experience includes: Connah's Quay Low Carbon Power, Net Zero Teeside, H2 Teesside, Fosse Green Energy Solar, M42 Junction 6 Improvements and Grand Union Canal Transfer.

Appendix 1B Glossary and Abbreviations

Glossary

Term	Definition
Applicant	EDF Energy Nuclear Generation Limited
Area A	The main area of the existing Dungeness B, comprising all land and associated infrastructure within the existing double security fence boundary and the adjacent car park.
Area B	The area associated with the B1 Hanger, an existing storage hanger, laydown area and conventional waste storage compound.
Area C	The area associated with the existing back-up cooling water infrastructure at the Long Pits, an existing onshore waterbody.
Area D	The area associated with the existing cooling water infrastructure comprising the intake and outfall culverts located within the English Channel and foreshore.
Care and Maintenance Phase	Phase 2 of the Proposed Works under the Early Safestore approach, whereby the reactor complex and high-activity waste vaults would be enclosed within the Safestore and maintained in a state of long-term passive safety. This phase is not relevant to the Prompt Decommissioning approach.
Environmental Management Plan	A site-specific plan developed to ensure that appropriate environmental management practices are followed during the Proposed Works.
Final Site Clearance Phase	Phase 3 of the Proposed Works, whereby the intended outcome is to achieve the conditions necessary for ONR to determine that Dungeness B presents ‘no danger’, enabling release from nuclear regulations.
Initial Decommissioning Works Phase	Phase 1 of the Proposed Works, intended to reduce Dungeness B to a low-hazard, minimal intervention state.
Integrated Management System	A suite of specification documents and procedural arrangements prepared to ensure activities are undertaken in accordance with regulatory and legislative requirements as well as established good practice.
Proposed Works	The decommissioning and dismantling works at Dungeness B which are subject to ONR consent
Works Area	The 20.97 ha area required for the decommissioning and dismantling of Dungeness B, comprising Areas A, B, C and D.

Abbreviations

Acronym	Definition
AADT	Average Annual Daily Traffic
AAEDL	Alternative Active Effluent Discharge Line
AD	Anno Domini
AECL	Atomic Energy of Canada Limited
AETP	Active Effluent Treatment Plant
AGR	Advance Gas Cooled Reactor
ALARP	As Low as Reasonably Practicable
AMAA	Ancient Monuments and Areas Act
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
APIS	Air Pollution Information Service
AQAL	Air Quality Assessment Level
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
ATC	Automatic Traffic Counts
ATSDL	Alternative Treated Sewage Discharge Line
Ba	Barium
BAP	Biodiversity Action Plan
BAT	Best available techniques
BGS	British Geological Survey
BNG	Biodiversity Net Gain
BoCC	Birds of Conservation Concern
BP	before present
BPM	Best Practicable Means
BSI	British Standards Institution
BTO	British Trust for Ornithology
CAR	Control of Asbestos Regulations
CCC	Committee on Climate Change's
CCO	Channel Coastal Observatory
CCRA	Climate Change Risk Assessment
CD	Chart Datum
CDM	Construction (Design and Management)
CH_4	Methane
CIEEM	Chartered Institute for Ecology and Environmental Management
CIfA	Chartered Institute for Archaeologists
CIRIA	Construction Industry Research and Information Association

Acronym	Definition
CL:AIRE	Contaminated Land: Applications in Real Environments
CO_2	Carbon dioxide
COMAH	Control of Major Accident Hazards
CoPA	Control of Pollution Act 1974
Cr	chromium
CRTN	Calculation of Road Traffic Noise
CSM	Conceptual site model
CW	Cooling water
DBA	Desk-Based Assessment
DDV	Drop-down video
DEFRA	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DoE	The United States Department of Energy
DoW CoP	Definition of Waste: Development Industry Code of Practice
DSEDS	Decommissioning Site Electrical Distribution System
DWPF	Decommissioning Waste Processing Facility
EC	European Commission
EcIA	Ecological Impact Assessment
eDNA	Environmental DNA
EEA	European Economic Area
EFT	Emissions Factor Toolkit
EHO	Environmental Health Officer
EIA	Environmental Impact Assessment
EIADR	The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999
ELC	European Landscape Convention
EMODnet	European Marine Observation Data Network
EMP	Environmental Management Plan
EPA	Environmental Protection Act
EPR	Environmental Permitting Regulations
EPSML	European Protected Species Mitigation Licence
EPUK	Environmental Protection UK
EQS	Environmental Quality Standards
ES	Environmental Statement
EUNIS	European Union Nature Identification System
EWC	European Waste Catalogue
FFV	Fuel free verification

Acronym	Definition
FRA	Flood Risk Assessment
GCN	Great Crested Newt
GCR	Geological Conservation Review
GDF	Geological Disposal Facility
GES	Good Environmental Status
GHG	Greenhouse gas
GLVIA3	Guidelines for Landscape and Visual impact Assessment (Third Edition)
GPA	Historic England Good Practice Advice
GVA	Gross Value Added
GWD	Groundwater Directive
GWDTE	Groundwater Dependent Terrestrial Ecosystems
ha	hectare
HAT	Highest Astronomical Tide
HAW	Higher Activity Waste
HBCDD	Hexabromocyclododecane
HDV	Heavy Duty Vehicle
HFCs	Hydrofluorocarbons
HGV	Heavy Goods Vehicle
HIA	Health Impact Assessment
HLC	Historic Landscape Characterisation
HOPI	Habitats of principal importance
HPMA	Highly Protected Marine Area
HRA	Habitats Regulations Assessment
IAEA	International Atomic Energy Agency
IAMMWG	Inter-Agency Marine Mammal Working Group
IAQM	Institute of Air Quality Management
ICCI	In-combination climate change assessment
ICE	Inventory of Carbon and Energy
ICES	International Council for the Exploration of the Sea
ICILWS	Interim Conditioned Intermediate Level Waste Store
ICZM	Integrated Coastal Zone Management
IDB	Internal Drainage Boards
IEMA	Institute of Environmental Management and Assessment
IFCA	Inshore Fisheries and Conservation Authority
ILW	Intermediate Level Waste
IMO	International Maritime Organization
IMS	Integrated Management System
INNS	Invasive non-native species
IPCC	Intergovernmental Panel on Climate Change

Acronym	Definition
IRZ	Impact Risk Zones
ISEP	Institute of Sustainability and Environmental Professionals
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
JUB	Jack-up barge
KCC	Kent County Council
KHER	Kent Historic Environment Record
km	Kilometre
KMBRC	Kent & Medway Biological Record Centre
KMWLP	Kent Minerals and Waste Local Plan
LAQM	Local Air Quality Management
LAT	Lowest Astronomical Tide
LAW	Lower Activity Waste
LCA	Life cycle assessment
LCRM	Land Contamination Risk Management
LDV	Light Duty Vehicle
LGS	Locally Important Geological Sites
LLA	Local Landscape Area
LLFA	Lead Local Flood Authorities
LLW	Low Level Waste
LNR	Local Nature Reserve
LNRS	Local Nature Recovery Strategy
LOAEL	Lowest Observed Adverse Effect Level
LQM	Land Quality Management
LSOAs	Lower Super Output Areas
LVIA	Landscape and Visual Impact Assessment
MA&D	Major Accident and Disaster
MAGIC	Multi Agency Geographic Information for the Countryside
MAIB	Marine Accident Investigation Branch
MCA	Marine Character Area
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act
MCC	Manual Classified Counts
MCZ	Marine Conservation Zone
mg/l	Milligrams per litre
MGN	Marine Guidance Note
MHCLG	Ministry of Housing, Communities and Local Government
MHWN	Mean High Water Neap
MHWS	Mean High Water Springs

Acronym	Definition
MLWN	Mean Low Water Neap
MLWS	Mean High Water Springs
MMMU	Marine mammal management unit
MMO	Marine Management Organisation
MMP	Materials Management Plan
MPAs	Minerals Planning Authorities
MPCP	Marine Pollution Contingency Plan
MPS	Marine Policy Statement
MSA	Mineral Safeguarding Area
MSL	Mean Sea Level
MW	Megawatt
N_2O	Nitrous oxide
NCA	National Character Area
NCN	National Cycle Network
NDA	Nuclear Decommissioning Authority
NERC	Natural Environment and Rural Communities
NF_3	Nitrogen Trifluoride
NFN	National Freight Network
NGR	National Grid Reference
NHBC	National House Building Council
NHLE	National Heritage List for England
NLF	Nuclear Liabilities Fund
NNR	National Nature Reserve
NO_2	Nitrogen Dioxide
NOAEL	No Observed Adverse Effect Level
NOEL	No Observed Effect Level
NPPF	National Planning Policy Framework
NPSE	Noise Policy Statement for England
NRMM	Non-Road Mobile Machinery
NRS	Nuclear Restoration Services
NSIP	Nationally Significant Infrastructure Project
NSL	Nuclear Site Licence
NSR	Noise Sensitive Receptors
NTS	Non-Technical Summary
NVC	National Vegetation Classification
NWFD	Non-Waste Framework Directive
ODN	Ordnance Datum Newlyn
OHID	Office for Health Improvement and Disparities

Acronym	Definition
OMH	Open Mosaic Habitats on Previously Developed Land
ONR	Office of Nuclear Regulation
ONS	Office of National Statistics
OWPF	Operational Waste Processing Facility
PAD	Protocol for Archaeological Discovery
PAH	Polycyclic Aromatic Hydrocarbon
Pb	Lead
PBDE	Polybrominated diphenyl ethers
PDSC	Post Defueling Safety Case
PFC	Perfluorocarbons
PFOS	Perfluorooctane sulphonate
PIA	Personal Injury Accident
PM_{10}	Particulate Matter
$PM_{2.5}$	Fine Particulate Matter
PMRA	Protection of Military Remains Act
PPG	Planning Practice Guidance
PRA	Preliminary Roost Assessment
PRoW	Public Rights of Way
PWA	Protection of Wrecks Act
RBPM	River Basin Management Plan
RCM	Recycled Concrete Material
RCP	Representative Concentration Pathway
RFC	ratio of flow to capacity
RIGS	Regionally Important Geological/Geomorphological Sites
RNLI	Royal National Lifeboat Institution
RNSSS	Royal Navy Shore Signalling Station
RSPB	Royal Society for the Protection of Birds
RSR	Radioactive Substance Regulation(s)
RYA	Royal Yachting Association
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SF_6	Sulphur hexafluoride
SFRA	Strategic Flood Risk Assessment
SLA	Special Landscape Area
SMP	Shoreline Management Plan
SMU	Seal management unit
SNRHW	Stable Non-Reactive Hazardous Waste
SOAEL	significant Observed Adverse Effect Level

Acronym	Definition
SOPEP	Shipboard Oil Pollution Emergency Plan
SOPI	Species of principal importance
SPA	Special Protection Area
SPM	Suspended Particulate Matter
SPZ	Source Protection Zone
SSC	Suspended Sediment Concentrations
SSSI	Site of Special Scientific Interest
STP	Sewage Treatment Plant
SuDS	Sustainable Drainage Systems
TAG	Transport Analysis Guidance
tCO_2e	Tonnes of carbon dioxide equivalent
TCPA	Town and Country Planning Act
TGN	Technical Guidance Note
THC	Total Hydrocarbon Content
TOC	Total Organic Carbon
TSS	Traffic Separation Scheme
UAEL	Unacceptable Adverse Effect Level
UK	United Kingdom
UKCP18	UK Climate Projections
UKHab	UK Habitat Classification
UKHO	UK Hydrographic Office
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change
UXO	Unexploded Ordnance
VDV	Vibration dose values
VLLW	Very Low Level Waste
VOC	Volatile Organic Compounds
VTS	Vessel Traffic Service
Waste FD	Waste Framework Directive
WBCSD	World Business Council for Sustainable Development
WCA	Wildlife and Countryside Act
WeBS	Wetland Bird Survey
WFD	Water Framework Directive
WPA	Waste Planning Authorities
WRAP	Waste and Resources Action Programme
WRI	World Resources Institute
WSI	Written Scheme of Investigation
Zn	Zinc
ZoI	Zone of Influence

Acronym	Definition
ZTV	Zone of Theoretical Visibility

Appendix 4A Location of Information within the EIA Scoping Report

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Tables

1. Introduction

1.1.1 This appendix has been prepared to detail where the information identified within Technical Assessment Guide: The Assessment of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations Submissions[1] is provided within the EIA Scoping Report (the TAG).

1.1.2 **Table 1** provides a summary of the information included within the TAG and identify where the relevant information is includes within the EIA Scoping Report.

[1] ONR, 2023, Technical Assessment Guide (TAG)
The Assessment of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations Submissions, (online), Available at:
https://www.onr.org.uk/media/documents/guidance/ns-tast-gd-105.docx (accessed 28/10/2025)

Table 1: Location of Information in the ES

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
Terrestrial and Freshwater Ecology			
7.1	Scope	Identifies that consideration should be given to designated sites, protected species and priority species and habitats. When discussing spatial scope (study area), ONR note that this will vary by ecological receptor. Reference is made to consideration of different phases, suggesting the Care and Maintenance Phase is unlikely to result in significant effects, however sufficient information is required to support this.	Details of designated sites, protected species and priority species and habitats are provided in **Chapter 18: Terrestrial Ecology**, Section 18.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 18: Terrestrial Ecology**, Section 18.6: Potential Effects.
7.2	Legislation and Policy	Sets out principal legislation and policy relevant to the terrestrial ecological assessment.	Principal legislation and policy relevant to the terrestrial ecological assessment is set out in **Chapter 18: Terrestrial Ecology**, Section 18.2: Relevant Legislation, Policy and Guidance.
7.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of ecological effects.	The proposed assessment methodology is set out in **Chapter 18: Terrestrial Ecology**, Section 18.7: Assessment Methods.
7.4	Baseline and future baseline	States that ecological information is only adequate where it is appropriate (i.e., the right type of surveys for the site and the receptors likely to be found) and sufficient (i.e., there is sufficient effort in view of the time, size, complexity of the site to ensure all likely receptors are adequately accounted for – such as abundance and distribution). This section provides guidance on the desk study as well as surveys. In the context of the future baseline, it is noted that projections should be based on the understanding of trends in species population and distribution; current and predicted management	Current and future baseline conditions are set out in **Chapter 18: Terrestrial Ecology**, Section 18.3: Baseline Conditions.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		practices (for example, in the EMP); conservation plans; trends in habitat quality and environmental trends. The guidance also states that the ecological baseline should be continuously monitored during each phase of decommissioning.	
7.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • habitat loss • increase in noise and vibration • changes in air quality and dust distribution • provision of lighting	The identified impact pathways are discussed in **Chapter 18: Terrestrial Ecology**, Section 18.6: Potential Effects. The proposed scope of the Terrestrial Ecology Assessment is set out in **Chapter 18: Terrestrial Ecology**, Section 18.8: Summary of Potential Likely Significant Effects.
7.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the Terrestrial Ecology Assessment. These are noted below: • Noise and vibration. • Air quality. • Landscape and visual amenity. • Water resources and flooding. • Radiological effects. • Geomorphology and coastal processes. • Soils, geology and contaminated land. • Marine Ecology.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 18: Terrestrial Ecology**, Section 18.1: Introduction, Paragraph 18.1.3
7.7	Mitigation	Sets out the approach and principles for mitigation measures for terrestrial and freshwater ecology and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation measures for terrestrial ecology and set out in **Chapter 18: Terrestrial Ecology**, Section 18.5: Scope for Mitigation.
Marine Ecology			
8.1	Scope	Identifies that consideration should be given to designated sites, SACs, SPAs, Marine Conservation Zones and Nature Conservation Marine Protected Areas, SSSI, Ramsar sites,	Relevant designated sites are set out in **Chapter 13: Marine Ecology**, Section 13.3: Baseline Conditions.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		marine, coastal and intertidal habitats, marine fauna, benthic ecological species, and coastal and offshore commercial fisheries (if relevant). When discussing spatial scope (study area), ONR note that this will vary by ecological receptor. The spatial scope should be informed by modelling of changes to water flows, sediment loading and turbidity, as appropriate. All phases of the decommissioning works scoped into the EIA should be considered. Consideration should also be given to changes to the ecological baseline once the decommissioning works are complete, as well as seasonal and migratory patterns that could result in significant effects.	The proposed study areas are defined in **Chapter 13: Marine Ecology**, Section 13.6: Potential Effects.
8.2	Legislation and Policy	Sets out principal legislation and policy relevant to the marine ecology assessment.	Principal legislation and policy relevant to the marine ecology assessment is set out in **Chapter 13: Marine Ecology**, Section 13.2: Relevant Legislation, Policy and Guidance.
8.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of marine ecology effects.	The proposed assessment methodology is set out in **Chapter 13: Marine Ecology**, Section 13.7: Assessment Methodology.
8.4	Baseline and future baseline	ONR advise that sampling is likely to the most appropriate way to develop an understanding of the existing baseline conditions. It is recommended that baseline data is from within five years of the assessment being undertaken, although older data may be suitable for deep sediment data. In the context of the future baseline, it is noted that this should present what the marine environment would be like if decommissioning did not go ahead, giving due consideration to predicted climate-induced changes to the marine environment	Current and future baseline conditions are set out in **Chapter 13: Marine Ecology**, Section 13.3: Baseline Conditions.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		and resultant impacts on species migratory patterns and breeding periods. It is stated that changes to coastal processes that would occur naturally over time affecting marine, oceanographic and physical-chemical processes, including wind and weather patterns, wave and tidal conditions and sedimentary processes should be considered within the assessment.	
8.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • changes to the composition and features of designated marine sites • increase in noise and vibration • disturbance to seabed and water quality • changes to underwater habitat from the removal of infrastructure • changes to wave and sediment flow rates • underwater noise and vibration • changes to water temperature and sediment deposition • cessation of warm water discharge and chemical dosing, improved water quality • changes to seabed, sediment and wave movements, mobilisation of contaminants, reduction in water quality • pollution incidents, effluents being discharges into the sea, impacting water quality.	Relevant impact pathways are discussed in **Chapter 13: Marine Ecology**, Section 13.6: Potential Effects. The proposed scope of the marine ecology assessment is presented in **Chapter 13: Marine Ecology**, Section 13.8: Summary of Potential Likely Significant Effects.
8.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the Marine Ecology Assessment. These are noted below: • Terrestrial and freshwater ecology. • Geomorphology and coastal processes. • Water resources and flood risk. • Radiological effects. • Climatic factors.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 13: Marine Ecology**, Section 13.1: Introduction, Paragraph 13.1.5.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• Noise and vibration.	
8.7	Mitigation	Sets out the approach and principles for mitigation measures for marine ecology and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 13: Marine Ecology**, Section 13.5: Scope for Mitigation.
Noise and Vibration			
9.1	Scope	Identifies that consideration should be given to: - Noise sensitive receptors including dwelling, hospitals, healthcare facilities, education facilities, community facilities, adjacent to operational nuclear facilities, designed quiet areas or potential designated quiet areas, international and national or statutorily designated sites, public rights of way and cultural heritage assets. - Vibration sensitive receptors including dwellings, hospitals, healthcare facilities, education facilities, community facilities, adjacent to operational nuclear facilities, buildings containing vibration sensitive equipment and cultural heritage assets. It is noted that the variation in sensitivity of receptors, including temporal variations in sensitivity for certain receptors, should be accounted for during the assessment process. When discussing spatial scope (study area), ONR note that the assessment should consider all distances at which an effect may occur. Adjustments to the study area should be made according to noise levels likely to be generated by particular decommissioning activities. This should be informed by professional judgement. Reference is made to consideration of different phases, suggesting the assessment should plan the scope according to	Noise sensitive receptors are identified in **Chapter 14: Noise and Vibration**, Section 14.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 14: Noise and Vibration**, Section 14.6: Potential Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		the nature and extent of construction, demolition and maintenance activities at each phase of the project.	
9.2	Legislation and Policy	Sets out principal legislation and policy relevant to the noise and vibration assessment.	Principal legislation and policy relevant to the noise and vibration assessment is set out in **Chapter 14: Noise and Vibration**, Section 14.2: Relevant Legislation, Policy and Guidance.
9.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of noise and vibration effects.	The proposed assessment methodology is set out in **Chapter 14: Noise and Vibration**, Section 14.7: Assessment Methodology.
9.4	Baseline and future baseline	States that a noise baseline should be determined via either noise measurements (based upon actual survey data), predicted noise levels (noise model outputs), existing noise mapping undertaken by public bodies or as part of other developments, or a combination of all three. It is noted that noise measurements taken while a power station is operating may not reflect true baseline noise levels once generation stops, so comparing construction noise to these measurements can misrepresent actual impacts. To address this, assessments can either use proxy locations unaffected by the station or adjust on-site measurements by subtracting the modelled contribution of power-generation noise to estimate the true background level. This section provides guidance on surveys. In the context of the future baseline, it is suggested that baseline noise levels may be projected for different future years to reflect expected changes, such as increasing road-traffic noise or reduced noise following power station closure. A future baseline can be set for a design year or key decommissioning	Current and future baseline conditions are set out in **Chapter 14: Noise and Vibration**, Section 14.3: Baseline Conditions.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		stages, provided reasonable assumptions can be made about noise and activity levels at those times. It is also noted that if noise and vibration levels are likely to be lower during certain stages of decommissioning than existing site operations, it may be scoped out and rely on the established baseline.	
9.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • vehicle movements generating additional noise along access routes • demolition noise and vibration occurring • noise and vibration from generators and impact to structures • construction noise and vibration	Relevant impact pathways are discussed in **Chapter 14: Noise and Vibration**, Section 14.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 14: Noise and Vibration**. Section 14.8: Summary of Potential Likely Significant Effects.
9.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the Terrestrial Ecology Assessment. These are noted below: • Terrestrial and freshwater ecology. • Marine ecology. • Cultural Heritage. • Landscape and visual amenity. • Health. • Socio-economics.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 14: Noise and Vibration**, Section 14.1: Introduction, Paragraph 14.1.2.
9.7	Mitigation	Sets out the approach and principles for mitigation measures for noise and vibration and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 14: Noise and Vibration**, Section 14.5: Scope for Mitigation.
Air Quality			
10.1	Scope	Identifies that typical air quality sensitive receptors include residential and other properties, schools, and hospitals close to the decommissioning works and those alongside roads significantly affected by the project (the affected road network),	Air quality sensitive receptors are identified in **Chapter 6: Air Quality**, Section 6.3: Baseline Conditions.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		designated sites of ecological importance, and the flora and fauna near the site or affected road network. DMRB and IAQM guidance regarding the spatial scope for assessing impacts on receptors is presented. Reference is made to consideration of different phases and the peak activity levels on the sire and surrounding road network.	Consideration of the relevant phases of the Proposed Works is provided in **Chapter 6: Air Quality**, Section 6.6: Potential Effects.
10.2	Legislation and Policy	Sets out principal legislation and policy relevant to the air quality assessment.	Principal legislation and policy relevant to the air quality assessment is set out within **Chapter 6: Air Quality**, Section 6.2: Relevant Legislation, Policy and Guidance.
10.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of air quality effects.	The proposed assessment methodology is set out in **Chapter 6: Air Quality**, Section 6.7: Assessment Methodology.
10.4	Baseline and future baseline	This section sets out the baseline information that should be gathered to inform the air quality assessment. Where sufficient air quality data is not available, it may be necessary to carry out specific monitoring to inform the baseline and support modelling activities. In terms of the future baseline, it is stated that this should be developed from modelled pollutant concentrations that would be likely to occur irrespective of the decommissioning works being undertaken (the 'do nothing scenario'). The current best available modelling and forecasting tools allow comparison of future baselines up to the year 2030, therefore, 2030 will represent the current worst-case 'do-nothing scenario'.	Current and future baseline conditions are set out in **Chapter 6: Air Quality**, Section 6.3: Baseline Conditions.
10.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as:	Relevant impact pathways are discussed in **Chapter 6: Air Quality**, Section 6.6: Potential Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• vehicles emissions arising from transport activity to and form the site • construction and demolition-related exhaust emissions • track out • dust and debris released into air through demolition / earthwork activities.	The proposed scope of the assessment is set out in **Chapter 6: Air Quality**, Section 6.8: Summary of Potential Likely Significant Effects.
10.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the Terrestrial Ecology Assessment. These are noted below: • Climatic factors. • Terrestrial and freshwater ecology. • Traffic and transport. • Radiological effects. • Materials resources and waste. • Human health.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 6: Air Quality**, Section 6.1: Introduction, Paragraph 6.1.2.
10.7	Mitigation	Sets out the approach and principles for mitigation measures for air quality and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 6: Air Quality**, Section 16.5: Scope for Mitigation.
Soils and Geology			
11.1	Scope	Identifies that consideration should be given to soil quality, groundwater bodies and their quality, surface waters, agricultural land, sites of geological importance, non-radioactive discharge, human health, and mineral resources. ONR note that the spatial scope should comprise the site and an agreed ZoI (typically land within 250m of the site boundary for soils and geology and up to 1km from the site boundary for groundwater related assessments). It is stated that the temporal scope should reflect all phases of activity as per the agreed scope of the EIA.	Relevant receptors are identified in **Chapter 16: Soils and Geology**, Section 16.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 16: Soils and Geology**, Section 16.6: Potential effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
11.2	Legislation and Policy	Sets out principal legislation and policy relevant to the soils and geology assessment.	Principal legislation and policy relevant to the soils and geology assessment is set out in **Chapter 16: Soils and Geology**, Section 16.2: Relevant Legislation, Policy and Guidance.
11.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of soils and geology effects.	The proposed assessment methodology is set out in **Chapter 16: Soils and Geology**. Section 16.7: Assessment Methodology.
11.4	Baseline and future baseline	This section provides guidance on the comprehensive desk study and soil surveys which should be undertaken to inform the baseline In the context of the future baseline, it is noted that this would be set by considering the location and nature of the decommissioning project activities, and any changes to soils and geology during construction and demolition. It should be acknowledged that baseline conditions are expected to change over the lifetime of the project and explain how the assessment has accounted for this.	Current and future baseline conditions are set out in **Chapter 16: Soils and Geology**. Section 16.3: Baseline Conditions.
11.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • disturbance of contaminated material • release of contaminated material to air, water and groundwater • spread of contamination	Relevant impact pathways are discussed in **Chapter 16: Soils and Geology**, Section 16.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 16: Soils and Geology**, Section 16.8: Summary of Potential Likely Significant Effects.
11.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the Terrestrial Ecology Assessment. These are noted below: • Water resources and flooding. • Terrestrial and freshwater ecology. • Marine ecology. • Radiological effects. • Material resources and waste.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 16: Soils and Geology**, Section 16.1: Introduction. Paragraph 16.1.2.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
11.7	Mitigation	Sets out the approach and principles for mitigation measures for soils and geology and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 16: Soils and Geology**, Section 16.5: Scope for Mitigation.
Climatic Factors			
12.1	Scope	States that Schedule 1 (5)(f) of the EIADR requires the impact of the project on climate to be considered and reported in the ES, including the assessments of both of carbon and greenhouse gas emissions and climate change resilience.	**Chapter 9: Climate Change**, Section 9.3: Baseline Conditions. **Chapter 9: Climate Change**, Section 9.6: Scope of Assessment
12,2	Policy and Legislation	Sets out principal legislation and policy relevant to the climate change assessments.	Principal legislation and policy relevant to the climate change assessments is set out in **Chapter 9: Climate Change**, Section 9.2: Relevant Legislation, Policy and Guidance.
Carbon and GHG emissions			
12.3	Scope	States that the scope of the assessment should be clearly defined in terms of the sources of emissions to be covered; typically grouped into Scope 1, 2 or 3. The GHG assessment should report tonnes of carbon dioxide equivalent (tCO2e) attributed to the project, with consideration of the seven gases defined in the Kyoto protocol. ONR note that it should be clearly demonstrated that the scope of the GHG assessment focuses on the decommissioning project elements expected to give rise to the largest carbon emissions. It is stated that the assessment should be consistent with the EIA.	Relevant receptors are identified in **Chapter 9: Climate Change**, Section 9.6: Scope of Assessment. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 9: Climate Change**, Section 9.3: Baseline Conditions.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
12.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of carbon and GHG emissions effects.	The proposed assessment methodology is set out in **Chapter 9: Climate Change**, Section 9.7: Assessment Methodology.
12.3	Baseline and future baseline	ONR note that current baseline represents existing GHG emissions from the project boundary site prior to the commencement of the decommissioning project under consideration.	Current and future baseline conditions are set out in **Chapter 9: Climate Change**, Section 9.3: Baseline Conditions.
12.3	Project impacts and Potential Effects	The guidance identifies that all project activities that generate GHG emissions could be considered to generate a significant effect. Decommissioning activities likely to give rise to the largest carbon emissions include: • Embodied carbon in materials required for construction. • Direct emissions from plant and equipment. • Vehicle emissions from transporting materials, waste and people to and from the site. • Any stored emissions released from any waste stores or vegetation that may be impacted by the works.	The proposed scope of the assessment is set out in **Chapter 9: Climate Change**, Section 9.6: Scope of Assessment.
12.3	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with carbon and GHG emissions. These are noted below: • Traffic and Transport. • Materials and Waste.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 9: Climate Change**, Section 9.1: Introduction, Paragraph 9.1.3.
12.3	Mitigation	Sets out the approach and principles for mitigation measures for carbon and GHG emissions and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 9: Climate Change**, Section 9.5: Scope for Mitigation.
Climate Resilience			
12.4	Scope	States that likely effects of short-term weather and long-term climate effects upon aspects of the projects should be considered, including: • building and infrastructure receptors	Relevant receptors are identified in **Chapter 9: Climate Change**, Section 9.6: Scope of Assessment.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• human health receptors • environmental receptors. It terms of the spatial scope, ONR note that the assessment should include the site, any offsite works required to facilitate the decommissioning process, and external services which the site is dependent on, such as power and telecommunications. The assessment should be consistent with the temporal scope of the EIA. Consideration should also be given to the fact that climate hazards will be of greater significant for longer projects.	**Chapter 9: Climate Change**, Section 9.3: Baseline Conditions.
12.4	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of climate resilience effects.	The proposed assessment methodology is set out in **Chapter 9: Climate Change**, Section 9.7: Assessment Methodology.
12.4	Baseline and future baseline	States that historic and prevailing weather conditions should inform the current baseline, with data obtained from the Met Office. In terms of developing the future baseline, ONR advise that suitable climate scenarios should be informed by the most recently published scientific data. This section provides a list of climatic factors which should be considered in the assessment.	Current and future baseline conditions are set out in **Chapter 9: Climate Change**, Section 9.3: Baseline Conditions.
12.4	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • reduced site access due to extreme weather events • forced halt to decommissioning activities due to extreme weather • extreme high temperatures • surface water flooding • soil degradation • damage to landscaping	The proposed scope of the assessment is set out in **Chapter 9: Climate Change**, Section 9.8: Summary of Potential Likely Significant Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• increased pressure on safe material storage	
12.4	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with climate resilience. These are noted below: • Terrestrial and freshwater ecology. • Marine ecology. • Landscape and visual amenity. • Water resources and flooding. • Human health.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 9: Climate Change**, Section 9.1: Introduction, Paragraph 9.1.3.
12.4	Mitigation	Sets out the approach and principles for mitigation measures for climate resilience and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 9: Climate Change**, Section 9.5: Scope for Mitigation.
Socio-economics			
13.1	Scope	Identifies that consideration should be given to the following receptors: • private property and housing • community land and assets • development land sites • businesses • agricultural land holdings • open space and recreation • the local economy • tourism When discussing spatial scope (study area), ONR note that this will vary by the type of receptor and sensitivity to change. When discussing temporal scope, ONR note that this should align with the duration of decommissioning activities or anticipated changes to the baseline environment. Consideration should also be given to varying work phases.	Relevant receptors are identified in **Chapter 15: Socio-Economics**, Section 15.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 15: Socio-Economics**, Section 15.6: Potential Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
13.2	Legislation and Policy	Sets out principal legislation and policy relevant to the socio-economic assessment.	Principal legislation and policy relevant to the socio-economic assessment is set out in **Chapter 15: Socio-Economics**, Section 15.2: Relevant Legislation, Policy and Guidance.
13.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of socio-economic effects.	The proposed assessment methodology is set out in **Chapter 15: Socio-Economics**, Section 15.7: Assessment Methodology.
13.4	Baseline and future baseline	States that the baseline should be organised according to the different aspects included within the technical scope of the assessment and should contain sufficient information to provide a profile of the existing population and land uses within the impact area, as well as describe the location, type and use of any socio-economic receptors identified. Characterisation of sensitive groups within impact areas should also be demonstrated. In the context of the future baseline, long-term plans and national, regional and local authority policy instruments should be reviewed and used to report on key trends that are likely to influence the future profile of the community.	Current and future baseline conditions are set out in **Chapter 15: Socio-Economics**, Section 15.3: Baseline Conditions.
13.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • changes to employment levels • changes to levels of community resources (schools, GPs, accommodation, open space and recreational areas) • changes to social asses and the profile of the community • reduction in amenity receptors as a result of construction activities	Relevant impact pathways are discussed in **Chapter 15: Socio-Economics**, Section 15.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 15: Socio-Economics**, Section 15.8: Summary of Potential Likely Significant Effects.
13.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the socio-economic assessment. These are noted below:	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 15: Socio-**

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• Health. • Landscape and visual amenity. • Air quality. • Noise and vibration. • Traffic and transport.	**Economics**, Section 15.1: Introduction, Paragraph 15.1.2.
13.7	Mitigation	Sets out the approach and principles for mitigation measures for socio-economics and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 15: Socio-Economics**, Section 15.5: Scope for Mitigation.
Health			
14.1	Scope	Identifies that consideration should be given to the effects of the following aspects of decommissioning activities: • construction activity • loss or gain of employment and training opportunities • increases or decreases in population numbers • changes to access to open spaces • changes to how people feel about their local community • the public's understanding of the risk associated with the decommissioning activity. When discussing spatial scope (study area), ONR note that this will vary by health pathway and will be driven by the location of the population who may experience health effects due to the decommissioning activities. The geographic scope needs to be large enough to sufficiently account for potential effects from both on-site and off-site activities. The temporal scope should align with the duration of the decommissioning activities and the duration of effects.	Relevant receptors are identified in **Chapter 11: Human Health**, Section 11.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 11: Human Health**, Section 11.6: Potential Effects.
14.2	Legislation and Policy	Sets out principal legislation and policy relevant to the health assessment.	Principal legislation and policy relevant to the health assessment is set out in **Chapter 11: Human Health**, Section 11.2: Relevant Legislation, Policy and Guidance.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
14.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of health effects.	The proposed assessment methodology is set out in **Chapter 11: Human Health**, Section 11.7: Assessment Methodology.
14.4	Baseline and future baseline	States that the purpose of the baseline is to identify the general health of the population in areas impacted by decommissioning activities (considering the social and demographic structure, behaviour and relative economic circumstance of the community). ONR suggests that the public health profile should consider the following: • life expectancy and causes of death • injuries and ill health • behaviour risk factors (e.g. physical activity levels) • child health indicators (e.g. physical activity and obesity rates) • inequality data • wider determinants of health such as educational attainment, employment rates, etc. In the context of the future baseline, it is noted that this should set out the major trends in public health within the defined spatial parameter across the scope of the health assessment. National and regional trends should be considered.	Current and future baseline conditions are set out in **Chapter 11: Human Health**, Section 11.3: Baseline Conditions.
14.5	Project impacts and Potential Effects	This section outline the types of impacts that are likely to be relevant to decommissioning activities and determining health and wellbeing outcomes, including (but not limited to), changes in the workforce structure, impacts of construction activity, local procurement of goods, etc.	Relevant impact pathways are discussed in **Chapter 11: Human Health**, Section 11.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 11: Human Health**, Section 11.8: Summary of Potential Likely Significant Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
14.6	Interface with other EIA topics	ONR identify that for some impacts, such as air quality, noise and change in traffic flows, the outputs of other assessments will be used to predict the health and well-being outcome.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 11: Human Health**, Section 11.1: Introduction, Paragraph 11.1.2 and Paragraph 11.1.3.
14.7	Mitigation	Sets out the approach and principles for mitigation measures for health and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 11: Human Health**, Section 11.5: Scope for Mitigation.
Traffic and Transport			
15.1	Scope	Identifies that consideration should be given to the following potential impacts: • severance of existing transport routes • driver delay and the impact on journey times • pedestrian delay and the impact on journey times • pedestrian amenity • fear and intimidation to users of the transport network • accidents and safety • hazardous loads Identifies that the following receptors should be considered within the assessment: • walkers, cyclists and horse-riders (WCH) • drivers and passengers of motorised vehicles using the local highway network and public transport. When discussing spatial scope (study area), ONR note that the assessment should cover the area within the application limits, together with the area over which the project is expected to have influence. When considering marine navigation, the spatial scope should extend to the planned sailing routes to and from the facility.	Relevant receptors are identified in **Chapter 17: Traffic and Transport**, Section 17.3: Baseline Conditions. **Chapter 17: Traffic and Transport**, Section 17.6: Potential Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		Consideration should be given to the various decommissioning phases and the peak activity levels on the site and surrounding road networks.	
15.2	Legislation and Policy	Sets out principal legislation and policy relevant to the traffic and transport assessment.	Principal legislation and policy relevant to the traffic and transport assessment is set out in **Chapter 17: Traffic and Transport**, Section 17.2: Relevant Legislation, Policy and Guidance.
15.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of traffic and transport effects.	The proposed assessment methodology is set out in **Chapter 17: Traffic and Transport**, Section 17.7: Assessment Methodology.
15.4	Baseline and future baseline	ONR advise that development of the baseline should consider: • accidents and collusion data from within the study area • the type, availability and capacity of public transport provision with the study area • the highway network The type, location and extent of WCH provision within the study area • the frequency of use of the WCH provision within the study area. This section provides guidance on the desk study as well as surveys. For the baseline to represent a realistic existing scenario, recent data representing peak traffic flows and user counts for all transport modes should be used, and school holidays, weekends, and bank holidays should be avoided for any surveys required. In the context of the future baseline, it is noted that background traffic levels are expected to increase in line with nationally published forecasts, regardless of any changes from the	Current and future baseline conditions are set out in **Chapter 17: Traffic and Transport**, Section 17.3: Baseline Conditions.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		decommissioning project, therefore assessments typically forecast background traffic growth for several future scenarios.	
15.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • increased numbers of vehicles (including HGVs) using the public highway • risk of major hazard accident resulting in spillage or leakage of toxic material • increased patronage of public transport services • increased numbers of vehicles using the public highway • changes to road layout or functionality • changes to routings of people walking and cycling	Relevant impact pathways are discussed in **Chapter 17: Traffic and Transport**, Section 17.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 17: Traffic and Transport**, Section 17.8: Summary of Potential Likely Significant Effects.
15.7	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the traffic and transport assessment. These are noted below: • Socio-economics. • Health. • Air Quality. • Noise and vibration.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 17: Traffic and Transport**, Section 17.1: Introduction, Paragraph 17.1.2.
15.8	Mitigation	Sets out the approach and principles for mitigation measures for traffic and transport and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 17: Traffic and Transport**, Section 17.5: Scope for Mitigation.
Radiological Effects			
16.1	Scope	Identifies that consideration should be given to residents in local properties and workers on neighbouring land and sites, high-rate consumers of local produce from the land, high-rate consumers of freshwater and sea foods, and people who spend large amounts of time in or around freshwater or marine environments affected by radioactive discharges.	**Chapter 20: Other Environmental Topics**, Section 20.4 Radioactive Waste and Discharges provides justification for scoping out radiological effects out of the EIA which considered this information provided within Section 16.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		When discussing spatial scope (study area), ONR note that this should extend from the decommissioning site for as far as is necessary to take account of those likely to be most exposed. In terms of temporal scope, it is notes that this should cover all phases of the decommissioning works scoped into the EIA.	
16.2	Legislation and Policy	Sets out principal legislation and policy relevant to the radiological assessment.	
16.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of radiological effects.	
16.4	Baseline and future baseline	Advises that the existing levels of radioactivity in the local environment and doses arising from the existing operations and other sources of anthropogenic activity in the environment should be provided.	
16.5	Project impacts and Potential Effects	The guidance identifies that impacts affecting members of the public and non-human biota may arise from the following activities: • management of spent fuel ponds • operation of any active effluent treatment plan • management of radioactive waste accumulated on site • treatment of radioactive waste on site from interim storage and disposal • decontamination and dismantling of radioactively contaminated buildings and equipment • treatment of contaminated soil and ground water • dredging of offshore sediments • management of radioactive contamination in situ	

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
16.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the radiological assessment. These are noted below: • Terrestrial and freshwater ecology. • Marine ecology. • Soils, geology and contaminated land. • Health. • Materials and waste. • Transport.	
16.7	Mitigation	Sets out the approach and principles for mitigation measures for radiological effects and provides examples of appropriate mitigation measures following the mitigation hierarchy.	
Material Resources and Waste			
17.1	Scope	Identifies that typical receptors to be considered in the materials and waste assessment include: - Materials availability impact (immediate and long-term)(locally, regionally, nationally and internationally) as a result of the works. - capacity, suitability and availability of appropriate waste management infrastructure (landfill, incineration, waste transfer stations, composting facilities etc.) to manage waste generated. ONR advises that the spatial scope of the assessment should be based on professional judgement and informed by best practice guidance. When considering the temporal scope of the assessment, this should cover all phases of the decommissioning project scoped into the EIA, considering peak activity years. The long-term implications on material usage and landfill / disposal capacity should be considered.	Relevant receptors are identified in **Chapter 7: Materials and Conventional Waste**, Section 7.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 7: Materials and Conventional Waste**, Section 7.6: Potential Impacts.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
17.2	Legislation and Policy	Sets out principal legislation and policy relevant to the material resources and waste assessment.	Principal legislation and policy relevant to the material resources and waste assessment is set out in **Chapter 7: Materials and Conventional Waste**, Section 7.2: Relevant Legislation, Policy and Guidance.
17.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of material resources and waste effects.	The proposed assessment methodology is set out in **Chapter 7: Materials and Conventional Waste**, Section 7.7: Assessment Methodology.
17.4	Baseline and future baseline	This section provides an overview of the relevant IEMA Guidance on Materials and Waste which should be presented in the baseline. In the context of the future baseline, this information should be extrapolated alongside predicted material resource and waste requirements of decommissioning. An understanding of proposed land use change for the area should also inform the future baseline used for the assessment, based on local authority data.	Current and future baseline conditions are set out in **Chapter 7: Materials and Conventional Waste**, Section 7.3: Baseline Conditions.
17.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • use of raw materials • generation of waste • vehicle emissions from transport	Relevant impact pathways are discussed in **Chapter 7: Materials and Conventional Waste**, Section 7.6: Potential Impacts. The proposed scope of the assessment is set out in **Chapter 7: Materials and Conventional Waste**, Section 7.8: Summary of Potential Likely Significant Effects.
17.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the material resources and waste assessment. These are noted below: • Climatic factors. • Air quality.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 7: Materials and Conventional Waste**, Section 7.1: Introduction, Paragraph 7.1.9 and 7.1.10.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• Radiological effects. • Soils, geology, and contaminated land. • Water resources and flooding. • Traffic and transport. • Socio-economics.	
17.7	Mitigation	Sets out the approach and principles for mitigation measures for material resources and waste and provides examples of appropriate mitigation measures following the mitigation hierarchy.	**Chapter 7: Materials and Conventional Waste**, Section 7.5: Scope for Mitigation.
Water Resources and Flooding			
18.1	Scope	The scope for this section has been divided into two sections: water resources and flood risk.	N/A
19.2	Legislation and Policy	Sets out principal legislation and policy relevant to the water resources and flood risk assessments.	Principal legislation and policy relevant to the water resources and flood risk assessments is set out in **Chapter 19: Water Environment and Flood Risk**, Section 19.2: Relevant Legislation, Policy and Guidance.
Water Resources			
18.3	Scope	Provides some examples of receptors that may be susceptible to water quality or availability impacts, including: • designated aquifers • licensed surface water abstractions • potable licensed groundwater abstractions • unlicensed private water supply abstractions • WFD groundwater / surface water bodies • water-dependent environmentally designated sites • commercial aquaculture When discussing spatial scope (study area), ONR note that this will vary for each pathway. In general, water quality or	Relevant receptors are identified in **Chapter 19: Water Environment and Flood Risk**, Section 19.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 19: Water Environment and Flood Risk**, Section 19.6: Potential Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		abstraction impacts will be felt downstream or down the hydraulic gradient of a source. The temporal scope of the assessment should cover all phases of decommissioning scoped into the EIA.	
18.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of ecological effects.	The proposed assessment methodology is set out in **Chapter 19: Water Environment and Flood Risk**, Section 19.7: Assessment Methodology.
18.3	Baseline and future baseline	ONR advise that the current baseline should be established from published and available site-specific information, supplemented by survey data. The site and ZoI should be described in terms of surface water/ groundwater quality, fluvial flow, groundwater level, drainage infrastructure, historic flooding, etc. Notes that the impact of climate change, long term development and flood risk management strategy and water resource management planning will affect the future baseline and should be reflected in the assessment. Relevant Water Resource Management Plan should be reviewed to identify any potential interactions.	Current and future baseline conditions are set out in **Chapter 19: Water Environment and Flood Risk**, Section 19.3: Baseline Conditions.
18.3	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • contamination of surface water, groundwater, and underlying and surrounding aquifers. • temporary dewatering of underlying aquifers	Relevant impact pathways are discussed in **Chapter 19: Water Environment and Flood Risk**, Section 19.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 19: Water Environment and Flood Risk**, Section 19.8: Summary of Potential Likely Significant Effects.
18.3	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the water resources assessment. These are noted below:	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 19: Water**

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• Climatic factors. • Terrestrial and freshwater ecology. • Marine ecology. • Coastal processes and geomorphology, • Soils, geology and contaminated land.	**Environment and Flood Risk**, Section 19.1: Introduction, Paragraph 19.1.3.
18.3	Mitigation	Sets out the approach and principles for mitigation measures for water resources and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 19: Water Environment and Flood Risk**, Section 19.5: Scope for Mitigation.
Flood risk			
18.4	Scope	Identifies that consideration should be given to the following receptors susceptible to flood risk: • vulnerable land use • workers on site • residential properties • critical drainage areas • nationally / locally significant infrastructure, including neighbouring operational nuclear power stations and nuclear build sites. • nationally / locally designated planning policy areas. With regards to spatial scope, ONR note that flood risk impacts can occur upstream/up-gradient and downstream/down-gradient of the site. An initial search area should be determined by professional judgement. The temporal scope of the assessment should cover all phases of decommissioning that are scoped in.	Relevant receptors are identified in **Chapter 19: Water Environment and Flood Risk**, Section 19.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 19: Water Environment and Flood Risk**, Section 19.6: Potential Effects.
18.4	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of flood risk effects.	The proposed assessment methodology is set out in **Chapter 19: Water Environment and Flood Risk**, Section 19.7: Assessment Methodology.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
18.4	Baseline and future baseline	ONR advises that the current baseline should be established from published and available site-specific information. The site and ZoI should be described in terms of fluvial flow, groundwater levels, drainage infrastructure, historic flooding, etc., Notes that the impact of climate change, long term development and flood risk management strategy and water resource management planning will affect the future baseline and should be reflected in the assessment. As climate change projects are subject to change, it is noted that the future baseline should be reviewed regularly to capture any changes. Climate change and sea level projections should also be considered in relation to flood magnitude and frequency, sea level rise and groundwater behaviour.	**Chapter 19: Water Environment and Flood Risk**, Section 19.3: Baseline Conditions.
18.4	Project impacts and Potential Effects	The guidance identifies the main impact pathways as a change in flood risk to the site or elsewhere.	Relevant impact pathways are discussed in **Chapter 19: Water Environment and Flood Risk**, Section 19.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 19: Water Environment and Flood Risk**, Section 19.8: Summary of Potential Likely Significant Effects.
18.4	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the flood risk assessment. These are noted below: • Climatic factors. • Terrestrial and freshwater ecology. • Marine ecology. • Coastal processes and geomorphology, • Soils, geology and contaminated land.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 19: Water Environment and Flood Risk**, Section 19.1: Introduction, Paragraph 19.1.3.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
18.4	Mitigation	Sets out the approach and principles for mitigation measures for flood risk and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 19: Water Environment and Flood Risk**, Section 19.5: Scope for Mitigation.
Geomorphology and Coastal Processes			
19.1	Scope	Identifies that consideration should be given to the following receptors: • hydrodynamic transport (e.g. water levels, tidal currents, nearshore wave climate, and extreme conditions) • sediment transport (e.g. longshore and cross-shore sediment transport, sediment budget etc.) • indirect effects of these on environmental receptors When discussing spatial scope (study area), ONR note that this will be determined based on the size of the potentially affected river catchment or the potential extent of marine and coastal works. It should be informed by the nature and extent of works likely to affect a watercourse. When discussing the temporal scope, ONR note that it is important to understand how coastal and fluvial changes brought about from various decommissioning activity will affect future work phases. This understanding will assist with assessments concerned with predicting how the site is likely to respond to decommissioning activities.	Relevant receptors are identified in **Chapter 8: Coastal Processes**, Section 8.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 8: Coastal Processes**, Section 8.6: Potential Effects.
19.2	Legislation and Policy	Sets out principal legislation and policy relevant to the geomorphology and coastal processes assessment.	Principal legislation and policy relevant to the geomorphology and coastal processes assessment is set out in **Chapter 8: Coastal Processes**, Section 8.2: Relevant Legislation, Policy and Guidance.
19.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of geomorphology and coastal processes effects.	The proposed assessment methodology is set out in **Chapter 8: Coastal Processes**, Section 8.7: Assessment Methodology.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
19.4	Baseline and future baseline	Provides an overview of the available information to be considered as part of a comprehensive desk study to determine the baseline. It is suggested that the baseline is defined in terms of tides and currents, wind and wave climate, coastal sediment transport, and analysis of extreme values. The future baseline should similarly include a detailed desktop assessment, expert judgement and a suitable numerical model, if required. It is emphasised that the future baseline also considers the effect of climate change, referring to the latest available guidance.	Current and future baseline conditions are set out in **Chapter 8: Coastal Processes**, Section 8.3: Baseline Conditions.
19.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • Disturbance of seabed and increase in suspended sediment concentrations and turbidity • changes to erosion deposition patterns around the removed structures • changes to littoral and cross-shore transport • changes in the nearshore wave climate • changes in hydrodynamic processes • increase in suspended sediment concentrations • increase in deposition rates in adjacent areas • release and mobilisation of contaminants and heavy metals into the water.	Relevant impact pathways are discussed in **Chapter 8: Coastal Processes**, Section 8.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 8: Coastal Processes**, Section 8.8: Summary of Potential Likely Significant Effects.
19.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the Terrestrial Ecology Assessment. These are noted below: • Terrestrial and freshwater ecology. • Marine ecology. • Soils, geology and contamination. • Water resources and flood risk.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 8: Coastal Processes**, Section 8.1: Introduction, Paragraph 8.1.2.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		• Climatic factors.	
19.7	Mitigation	Sets out the approach and principles for mitigation measures for geomorphology and coastal processes and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 8: Coastal Processes**, Section 8.5: Scope for Mitigation.
Landscape and Visual Amenity			
20.1	Scope	Identifies that the scope of a landscape and visual impact assessment should cover both the effects on the landscape as a resource and effects on view and visual amenity as experienced by people. Provides an overview of receptors to be considered, including: Landscape receptors: • international and National designated sites (e.g. World Heritage Sites, AONBs, National Parks, etc.) • Local designated sites such as Special Landscape Areas • Undesignated sites with particular value. Visual receptors: • residents and users of PRoW, road and of recreational facilities • views from cultural heritage features When discussing spatial scope (study area), ONR note that a Zone of Theoretical Visibility should be modelled to capture the extent to which the decommissioning works may be visible. To determine the area of landscape that may be affected, professional judgement should be used. The presence of high value landscapes, and their likelihood to be affected by the works, will include the appropriate extent of the study area.	Relevant receptors are identified in **Chapter 12: Landscape and Visual**, Section 12.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 12: Landscape and Visual**, Section 12.6: Potential Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
		It is noted that the temporal scope of the assessment should include all relevant phases of decommissioning that are scoped into the EIA. The planned end state should also be considered.	
20.2	Legislation and Policy	Sets out principal legislation and policy relevant to the landscape and visual impact assessment.	Principal legislation and policy relevant to the landscape and visual impact assessment is set out in **Chapter 12: Landscape and Visual**, Section 12.2: Relevant Legislation, Policy and Guidance.
20.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of landscape and visual amenity effects.	The proposed assessment methodology is set out in **Chapter 12: Landscape and Visual**, Section 12.7: Assessment Methodology.
20.4	Baseline and future baseline	States that baseline studies require a mix of desk study and fieldwork. Landscape character assessments and historic landscape assessments should be reviewed initially. This section provides guidance on carrying out relevant surveys. In the context of the future baseline, it is noted that this should be informed through an understanding of proposed land use change for the area, which could alter future landscape sensitivity or sensitive receptors.	Current and future baseline conditions are set out in **Chapter 12: Landscape and Visual**, Section 12.3: Baseline Conditions.
20.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • changes to traffic levels, noise and vibration close to landscape receptors • new temporary features introduced into the landscape • changes to the fabric of the coastal landscape and seascape • changes to views of the site from the ZTV	Relevant impact pathways are discussed in **Chapter 12: Landscape and Visual**, Section 12.6: Potential Effects. The proposed scope of the assessment is set out in **Chapter 12: Landscape and Visual**, Section 12.8: Summary of Potential Likely Significant Effects.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
20.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the landscape and visual impact assessment. These are noted below: • Terrestrial and freshwater ecology. • Health. • Historic environment. • Marine ecology. • Socio-economics.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 12: Landscape and Visual**, Section 12.1: Introduction, Paragraph 12.1.5.
20.7	Mitigation	Sets out the approach and principles for mitigation measures for landscape and visual amenity and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 12: Cultural Heritage**, Section 12.5: Scope for Mitigation.
Cultural Heritage			
21.1	Scope	Identifies that consideration should be given to both designated cultural heritage assets (e.g. World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, etc.) and non-designated cultural heritage assets (e.g. buildings, structures, monuments, etc.) When discussing spatial scope (study area), ONR note that the study area will be determined by factors including the location, type and scale of the decommissioning activities and the associated infrastructure requirements. Reference is made to the consideration of different phases, suggesting it may be relevant to scope out impacts on certain receptors during different phases of decommissioning.	Designated and non-designated heritage assets of relevance to the Proposed Works are identified in **Chapter 10: Historic Environment**, Section 10.3: Baseline Conditions. Consideration of the relevant phases of the Proposed Works is provided in **Chapter 10: Historic Environment**, Section 10.6: Potential Impacts.
21.2	Legislation and Policy	Sets out principal legislation and policy relevant to the cultural heritage assessment.	Principal legislation and policy relevant to the cultural heritage assessment is set out in **Chapter 10: Historic Environment**, Section 10.2: Relevant Legislation, Policy and Guidance.

TAG Section Reference	Title	Guidance	Location Considered within the EIA Scoping Report
21.3	Assessment Methodology	Identifies relevant good practice guidance and provides some further detail on the assessment of significance of cultural heritage effects.	The proposed assessment methodology is set out in **Chapter 10: Historic Environment**, Section 10.7: Assessment Methodology.
21.4	Baseline and future baseline	This section states that the assessment for cultural heritage will typically be based on a comprehensive desk study of available study area information. Further guidance for preparing the baseline report is provided, including data sources and considerations. It is noted that the future baseline is not typically considered for cultural heritage as it is unlikely that the sensitivity of receptors would change in the future.	Current and future baseline conditions are set out in **Chapter 10: Historic Environment**, Section 10.3: Baseline Conditions.
21.5	Project impacts and Potential Effects	The guidance identifies a series of possible impact pathways such as: • changes to traffic levels, noise and vibration close to heritage assets • disturbance to soils • changes to coastal processes, wave patterns, erosion and water temperature • changes to and from the site	Relevant impact pathways are discussed in **Chapter 10: Historic Environment**, Section 10.6: Potential Impacts. The proposed scope of the assessment is set out in **Chapter 10: Historic Environment**, Section 10.8: Summary of Potential Likely Significant Effects.
21.6	Interface with other EIA topics	A number of other environmental topics are identified to have potential interactions with the cultural heritage assessment. These are noted below: • Landscape and visual amenity. • Noise and vibration. • Traffic and transport • Geomorphology and coastal processes. • Geology, soils and contaminated land.	The identified interactions have been reviewed, with those relevant for the assessment of the Proposed Works outlined in **Chapter 10: Historic Environment**, Section 10.1: Introduction. Paragraph 10.1.2.
21.7	Mitigation	Sets out the approach and principles for mitigation measures for cultural heritage and provides examples of appropriate mitigation measures following the mitigation hierarchy.	Identified mitigation is set out within **Chapter 10: Historic Environment**, Section 10.5: Scope for Mitigation.

Appendix 5A Transboundary Screening Matrix

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Tables

1. Introduction

1.1.1 This appendix identifies the transboundary receptors of relevance to decommissioning of Dungeness B Nuclear Power Station (the 'Proposed Works') and considers the potential pathway and effects on these receptors, as required by the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) ('EIADR')[1].

1.2 Legislative Context

1.2.1 Transboundary effects arise when impacts from a development within other European Economic Area (EEA) Member States ('EEA states') affects the environment of another EEA state(s).

1.2.2 The UK is a signatory to the United Nations Economic Commission for Europe (UNECE) Convention on Environmental Impact Assessment[2] in a Transboundary Context. The Convention was adopted in 1991 in the Finnish city of Espoo and is therefore known as the 'Espoo Convention'. It was established to enhance the cooperation between EEA states in assessing environmental effects in a transboundary context.

1.2.3 Schedule 1, paragraph 5 of the EIADR states that the ES should include:

"The description of the likely significant effects on the factors specified in regulation 10B(3) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project."

1.2.4 Schedule 2, Regulation 18 (3c) requires 'the transboundary nature of the impact' to be taken into account when determining the likely significant effects of the Proposed Works on the environment.

1.2.5 There is no specific guidance to how transboundary effects should be assessed with respect to the EIADR. However, Planning Inspectorate Advice on Transboundary Impacts and Process[3] sets out the procedures for consultation in association with an application where such development may have significant transboundary impacts.

1.2.6 It is acknowledged that the Advice applies to Development Consent Order applications in England and Wales. However, it provides a structured approach to the assessment of transboundary effects. Therefore, the

[1] The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2018 (online). Available at: The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2018 [Accessed 23/12/2025]
[2] United Nations (1991). Convention on Environmental Impact Assessment in a Transboundary Context (online). Available at: Convention on Environmental Impact Assessment in a Transboundary Context [Accessed 23/12/2025]
[3] Planning Inspectorate (2025). Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process (online). Available at: Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process - GOV.UK [Accessed 23/12/2025]

assessment of transboundary effects has been undertaken in line with this guidance (see **Table 1**).

Table 1: Transboundary Screening Matrix

Transboundary Screening	
Document(s) used for transboundary Screening:	Decommissioning of Dungeness B Nuclear Power Station Scoping Report
Screening Criteria:	
Characteristics of the Development	Dungeness B is a 1,120 Megawatt (MW) twin Advanced Gas-cooled Reactor (AGR) which ceased generation on 7th June 2021 after 42 years of service, moving into the defueling phase with immediate effect. The Proposed Works would involve either a decommissioning approach known as 'Early Safestore' or 'Prompt Decommissioning' and comprise the decommissioning of the plant and apparatus, and the deconstruction of buildings and structures within and outside the Nuclear Site Licence (NSL) boundary that were an integral part of normal operation of the Dungeness B to allow it to generate electricity. The 'Early Safestore' approach would involve completing Initial Decommissioning Works and building a weather-tight secure Safestore around the reactor complex and high-activity waste vaults. The Works Area would then enter a Care and Maintenance period, deferring high-activity waste vault emptying, reactor dismantling, and final site clearance until later in the programme of the Proposed Works. The overall duration of this approach would be approximately 90 years, based on current assumptions and understanding of the programme. The 'Prompt Decommissioning' approach would involve Initial Decommissioning Works but, once completed, preparations for continuous reactor dismantling would commence, without a planned Care and Maintenance deferral period prior to Final Site Clearance. The overall duration of this approach would be approximately 40 years, based on current assumptions and understanding of the programme, and subject to the availability of a Geological Disposal Facility or suitable interim storage arrangements for intermediate level waste arisings (a form of higher activity waste). Further detail is provided in **Chapter 2: The Decommissioning and Dismantling Process** in this Scoping Report.
Location of Development (including existing use) and Geographical area	Dungeness B is situated on the south Kent coast, centred approximately at Ordnance Survey National Grid Reference TR081168. The Works Area is located within the administrative area of Folkestone and Hythe District Council (the Local Planning Authority), within the broader jurisdiction of Kent County Council.

Transboundary Screening

	The Works Area is located entirely within the UK EEA. The closest EEA state is France EEA which is approximately 21 km from the Works Area. **Figure 5-2** of **Chapter 5: EIA Methodology** shows the nearest EEA States.
Environmental Importance	As set out in **Chapter 18: Terrestrial Ecology**, the following European environmental designations are of relevance to the assessment of effects associated with the Proposed Works: • Dungeness Special Area of Conservation (SAC); • Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA); and • Dungeness, Romney Marsh and Rye Bay Ramsar. **Chapter 18: Terrestrial Ecology** also considers: • Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI); and • Dungeness National Nature Reserve (NNR). Given the nature, scale and duration of potential effects and the relative distance between the Proposed Works to any EEA State, the Applicant does not anticipate transboundary impacts on these designations because of the Proposed Works.
Potential impacts and Carrier	<u>Offshore Environmental Aspects</u> **Chapter 8: Coastal Processes** • The Study Area is focused on the Works Area, however, the Zone of Influence (ZoI) considered for the impact assessment on coastal physical processes and metocean conditions extends beyond the defined Study Area. The environmental baseline has therefore been characterised on a wider regional scale, as appropriate. The regional scale could extend beyond Rye Bay, within which the Works Area lies, to wider marine impacts within the English Channel. • The Marine Works are located entirely in subtidal waters offshore from Dungeness Beach in the Greater North Sea and English Channel marine region. The existing outfall and intake infrastructures are located approximately 16m and 34m from the shoreline respectively. • No potential pathways to transboundary impacts on other EEA states have been identified. **Chapter 13: Marine Ecology** • The Study Area has been based on the greatest likely ZoI for the Proposed Works in the Greater North Sea and English Channel. An initial 8km Study Area has been applied for marine ecology features. For migratory fish, a precautionary 50km Study Area has been used. • The effects of Proposed Works in the marine environment are expected to have no significant effects.

Transboundary Screening

- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 20: Other Environmental Topics

- Maritime Heritage has been scoped out as the Proposed Works are not expected to impact or disturb any heritage assets.
- Shipping and Navigation has been scoped out. Given the limited scale of the Marine Works and the proximity of these works to the coastline, it is considered that following the completion of the Navigational Risk Assessment, all risks would be managed to be ALARP.
- No potential pathways to transboundary impacts on other EEA states have been identified.

<u>Onshore Environmental Aspects</u>

Chapter 6: Air Quality

- The largest Study Area associated with the air quality assessment, extends to 250m from the boundary of the Proposed Works and 50m from the routes used by mobile machinery.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 7: Materials and Waste

- The Study Area consists of the Works Area and the waste facilities that will manage the waste generated from the Proposed Works.
- No transboundary impacts are expected impacts on other EEA states have been identified.

Chapter 9: Climate Change

- The spatial scope for the GHG emissions assessment was informed by the spatial extent of the Proposed Works. This included direct emissions (from site clearance, construction, grounds maintenance, dismantling, and decommissioning) and indirect emissions (raw material extraction, transportation, processing and embodied carbon in materials). These are considered in the context of UK Carbon Budgets.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 10: Historic Environment

- The Study Area for both designated and non-designated heritage assets is 3km from the Works Area.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 11: Human Health

- The Study Area is limited to England, at its greatest extent.

Transboundary Screening

- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 12: Landscape and Visual

- The largest Study Area associated with Landscape and Visual is 10km from the outer edge of the Works Area.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 14: Noise and Vibration

- The largest Study Areas for Noise and Vibration consider noise sensitive receptors up to 300m from the Works Area for construction, and 500m for operational noise.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 15: Socio-economics

- The Study Area is limited to England, at its greatest extent.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 16: Soils and Geology

- The Study Area includes the Works Area with an 100m buffer for soil and geology assessments, 250m buffer for land contamination, and 1km buffer for controlled waters.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 17: Traffic and Transport

- The Study Area is limited to specific roads on the Road Traffic Network within Kent.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 18: Terrestrial Ecology

- An initial 3km Study Area has been applied for protected species, habitats, non-statutory designated sites and nationally designated statutory sites. A 10km Study Area has been applied for internationally designated statutory sites.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Chapter 19: Water Environment and Flood Risk

- The Study Area is defined as the Works Area plus a ZoI of 1km. The Study Area includes the back-up cooling water system which extends approximately 1km north of Dungeness B to the long pits and is due to be dismantled.
- No potential pathways to transboundary impacts on other EEA states have been identified.

Transboundary Screening

	Chapter 20: Other Environmental Topics • Major Accidents and Disasters has been scoped out as all identified risks will be manged by mitigation measures. • Radioactive Waste and Discharges has been scoped out as these emissions and potential effects are controlled through permits and well-established methods. • No potential pathways to transboundary impacts on other EEA states have been identified.
Extent	No transboundary impacts scoped in at this stage.
Magnitude	
Probability	
Duration	
Frequency	
Reversibility	
Cumulative impacts	Proposed developments within 20km of the Works Area will be taken into consideration in the EIA. However, it is not anticipated that there is potential for significant cumulative transboundary effects.

Appendix 13A Marine Conservation Zone Screening

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1. Introduction

1.1 Context

1.1.1 This report has been prepared to give specific consideration of the potential for the decommissioning of Dungeness B Nuclear Power Station (hereafter referred to as the 'Proposed Works') to impact on Marine Conservation Zones (MCZs) and Highly Protected Marine Areas (HPMAs).

1.1.2 A MCZ is a type of marine protected area in UK waters that safeguards nationally important, rare, or threatened marine species and habitats. Designated under the Marine and Coastal Access Act 2009, MCZs allow for varying levels of protection, balancing conservation with sustainable use of marine resources. A HPMA is a marine zone where all extractive, destructive, and depositional activities are prohibited to allow full ecosystem recovery. Only non-damaging activities are permitted, making HPMAs the most strictly protected type of marine designation in the UK. The need for the consideration of MCZs and HPMAs is set out in Section 126 of the Marine and Coastal Access Act 2009.

1.1.3 This assessment has been undertaken to inform the decommissioning project as a whole and to support compliance with the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR), which require the consideration of potential effects on designated marine conservation sites. The assessment is also relevant to the future submission of a Marine Licence Application (MLA), which will be made at an appropriate stage in the decommissioning process. The conclusions of this report will be reviewed and, where necessary, updated to support future Marine Licence Application requirements as the project design develops.

1.2 Purpose of this Document

1.2.1 The purpose of this report is to inform the MCZ assessment process in determining whether the marine aspects of the Proposed Works (hereafter referred to as the 'Marine Works') could significantly affect:

- Protected features of an MCZ / HPMA; and/or
- Any ecological or geomorphological process on which the conservation of any protected features of an MCZ / HPMA is (wholly or in part) dependant.

1.2.2 This remainder of this report is structured as follows:

- Section 2 - Provides a description of the Marine Works;
- Section 3 - Outlines the approach and methodology followed;
- Section 4 - Identifies impacts that could arise from the planned activities;
- Section 5 - Identifies the MCZ sites that could be affected; and
- Section 6 - Presents a summary and conclusions of this report.

1.2.3 This MCZ assessment should be read in conjunction with **Chapter 13: Marine Ecology** of the **EIA Scoping Report**.

2. Proposed Works

2.1 Overview

2.1.1 EDF Energy Nuclear Generation Limited will be applying for consent from the Office for Nuclear Regulation (ONR) to decommission and dismantle the Dungeness B Nuclear Power Station. Dungeness B is situated on the South Kent in the administrative area of Folkstone and Hythe District Council.

2.1.2 A full description of the Proposed Works is provided in **Chapter 2: The Decommissioning and Dismantling Process**.

2.2 Works Area

2.2.1 For the purposes of this MCZ Screening Report, the Works Area is divided into following areas, as shown on **Figure 13A-2**:

- Area A – the exiting Dungeness B site;
- Area B – the area associated with the B1 Hanger;
- Area C – the area associated with the back-up cooling water infrastructure at Long Pits; and
- Area D – the area associated with the cooling water infrastructure within the English Channel.

2.2.2 For this MCZ Screening Report, the focus of the description provided is on Area D, with consideration of works in Area A.

2.3 Decommissioning Approach

2.3.1 The current baseline decommissioning approach is known as ‘Early Safestore’, which involves completing the Initial Decommissioning Works before modifying the reactor building to a Safestore structure for a Care and Maintenance period, thus deferring key activities comprising debris vault emptying, reactor dismantling, and final site clearance for approximately 75 to 90 years following the End of Generation. However, an alternative strategy known as ‘Prompt Decommissioning with Continuous Lead-in to Reactor Dismantling’ is also considered credible, due to site specific circumstances at Dungeness B (hereafter referred to as Prompt Decommissioning).

2.3.2 In both strategy options, decommissioning and dismantling would involve a series of planned work activities carried out in stages. These activities are designed to take advantage of the natural reduction in radioactivity over time, which helps lower risks to people and the environment and to manage radiological and conventional safety risks so that they are tolerable and ‘As Low As Reasonably Practicable’ (ALARP) at all times, including during the Care and Maintenance phase. Although the overall process primarily consists of carefully taking apart existing structures and systems through decommissioning and dismantling redundant power plant infrastructure,

some new supporting infrastructure would be required until reactor dismantling or Safestore construction, to support the work execution.

2.3.3 The key phases of the Early Safestore Strategy are:

- Phase 1 – Initial Decommissioning Works, comprising:
  - Establishment of supporting infrastructure, such as the new on-site waste management facilities to support radioactive and conventional waste processing activities.
  - Conventional decommissioning, active area de-planting in readiness for a Safestore or reactor dismantling, and dismantling of redundant plant and buildings and infrastructure to take the respective structures back to the existing ground levels at the site.
  - The processing, packaging and removal of some operational Higher Activity Waste (HAW) that has been intentionally and safely accumulated on-site during generation in dedicated storage locations and the processing, packaging and disposal of Lower Activity Waste (LAW) generated as a result of de-planting and dismantling activities.
- Phase 2 – Care and Maintenance, comprising:
  - Construction of a Safestore to enclose the reactor building.
  - Following the construction of the Safestore, it would be left in a passive state with minimal human intervention and associated activities to allow for the radioactivity, associated with the reactor core structures and materials within the debris vaults, to decay over time.
  - Activities would be limited to optimised surveillance, monitoring, maintenance of the Safestore, security arrangements and site services.
  - The construction of a Waste Management Centre for reactor dismantling and debris vault waste processing requirements.
- Phase 3 – Final Site Clearance, comprising:
  - Site preparation for the final site clearance.
  - Decommissioning, de-planting and dismantling of the reactors, debris vaults and associated nuclear island, and the buildings constructed to support the decommissioning of the reactor building, reactor and debris vaults.
  - Creation of a flat and level area within Area A, with voids either filled or made safe, and in a condition that meets agreed decommissioning criteria, as determined in consultation with regulators. This would enable the NSL area to be delicensed and allow for future decisions to be made regarding the potential release or re-use of the area, at an appropriate time.

2.3.4 Under the Prompt Decommissioning strategy, the same overall scope of work would be undertaken as in the Early Safestore Strategy; however, activities would proceed in a continuous sequence without a Safestore or planned long pause for Care and Maintenance (Phase 2 of the Early Safestore Strategy). Instead of placing the site into a passive state to allow

for radioactive decay, work would progress directly from Phase 1 activities into preparations for, and the subsequent delivery of, reactor dismantling and debris vault clearance, which would include the construction and use of the Waste Management Centre to support these operations.

2.4 Marine Works

2.4.1 Works below mean high water springs (MHWS), within Area D, would include the infrastructure installations listed below, which are required to support the continued management of permitted discharges after operation of the main cooling water pumps has ceased. Whilst the environmental effects of the construction and operation of the installations will be considered within the EIADR application, these works require a Marine Licence from the Marine Management Organisation (MMO).

2.4.2 The associated discharges are regulated under existing environmental permits issued by the Environment Agency and are therefore outside the scope of the EIADR assessment:

- Installation through construction of an Alternative Active Effluent Discharge Line (AAEDL) to convey discharges of treated radioactive substances from the existing Active Effluent Treatment Plant (AETP). These discharges are already permitted under the radioactive substances activity permit for the site (EPR/SB3035DF). The AAEDL is required to maintain discharge capability following the cessation of cooling water flows, which currently facilitates effluent conveyance Through the cooling water outfall tunnel which is oversized for decommissioning requirements.
- Installation through construction of an Alternative Treated Sewage Discharge Line (ATSDL) to convey effluent from the existing Sewage Treatment Plant (STP). This discharge is covered by the existing water discharge activity permit (EPR/P1288/K/87), which was varied in 2024 to reflect current site arrangements. The new STPL provides an alternative route to the currently permitted discharge point at the cooling water outlet.

2.4.3 These works are being undertaken to ensure continuity of permitted discharges and do not represent new or materially different discharges. The requirement for associated permit variations will be determined through technical assessments and consultation with the Environment Agency.

2.4.4 It is anticipated that the existing surface water discharge arrangements would be retained throughout the Initial Decommissioning Works and operated under the current water discharge activity permit (EPR/P1288/K/87). A proportionate assessment of future requirements would be undertaken for subsequent phases. If modifications or a new discharge arrangements are needed, these would be regulated under the Environmental Permitting Regulations, via a variation to the existing permit or a new permit application, as appropriate.

2.4.5 Dismantling and decommissioning of the existing cooling water intake and outfall infrastructure located below MHWS, within Area D, is not currently proposed or anticipated to be undertaken during the Initial Decommissioning

Works, with only landward-based decommissioning activities within the Works Area included in the Initial Decommissioning Works.

2.4.6 To install the alternative discharge lines, a jack-up barge and/or a flat-top barge will be required near the outfall structure, with infrastructure in place to pull or thread the alternative discharge lines through the existing CW outfall culvert would be required. The barge would need to be anchored to the seabed.

2.4.7 At present, no specific assumptions have been made regarding the method of fixing the pipelines in situ. It is anticipated, however, that some limited drilling or a gravity-based pipe-weight system may be required.

2.4.8 The Marine Works are assumed to last for up to three months and operations will only occur during daytime hours.

3. Assessment Approach

3.1 Approach

3.1.1 Guidance published by the MMO (2013) describes how MCZ Assessments could be undertaken during the process of marine licence decision making. These MMO guidelines recommend a staged approach to assessment, involving three sequential stages: screening, stage 1 assessment and stage 2 assessment. For the purpose of this report, the MMO guidance has been extended to also consider HPMAs which were introduced in 2023 following the publication of the guidance.

3.1.2 Full details of these stages have been provided below and presented in **Plate 3-1**.

- Screening (This document) – Determine whether the licensable activity is taking place within of near an area being put forward or already designated as an MCZ and whether the activity is capable of affecting (other than insignificantly) either (i) the protected features on an MCZ: or (ii) any ecological or geomorphological process on which the conservation of any protected feature of an MCZ is (wholly or in part) dependant. If the answer is yes, then proceed to Stage 1.
- Stage 1 Assessment – Determine if the authority satisfied that there is no significant risk of the activity hindering the conservation objectives stated for the MCZ and can the authority exercise its functions to further the conservation objectives of the site. If the answer is no to either of these questions, then the authority must consider whether there are other means of proceeding with the act which would create a substantially lower risk of hindering the achieving objectives. If the answer is still no, then proceed to Stage 2.
- Stage 2 Assessment – This stage looks at whether the benefit to the public clearly outweighs the risk of damage to the environment and seeks to satisfy the authority that the applicant can arrange to undertake measure of equivalent environmental benefit to the damage which the act will have of the MCZ.

3.1.3 To determine whether section 126 of the Marine and Coastal Access Act 2009 applies, it is necessary to consider the geographical proximity of the Marine Works to MCZs and HPMAs, and the potential for proposed activities to affect the designated features of an MCZ/HPMA or the ecological/ geomorphological processes upon which designated features are reliant.

3.1.4 A risk-based approach is recommended by the MMO when determining the proximity of an activity to an MCZ/HPMA. The application of appropriate buffer zones to the protected features of an MCZ/HMPA under consideration, as well as consideration of the potential risk of impacts from activities at greater distances from the MCZ/HMPA is necessary.

3.2 Consultation

3.2.1 No consultation has been undertaken to date regarding the Marine Works. Any future consultation will be incorporated at the next stage of the Proposed Works.

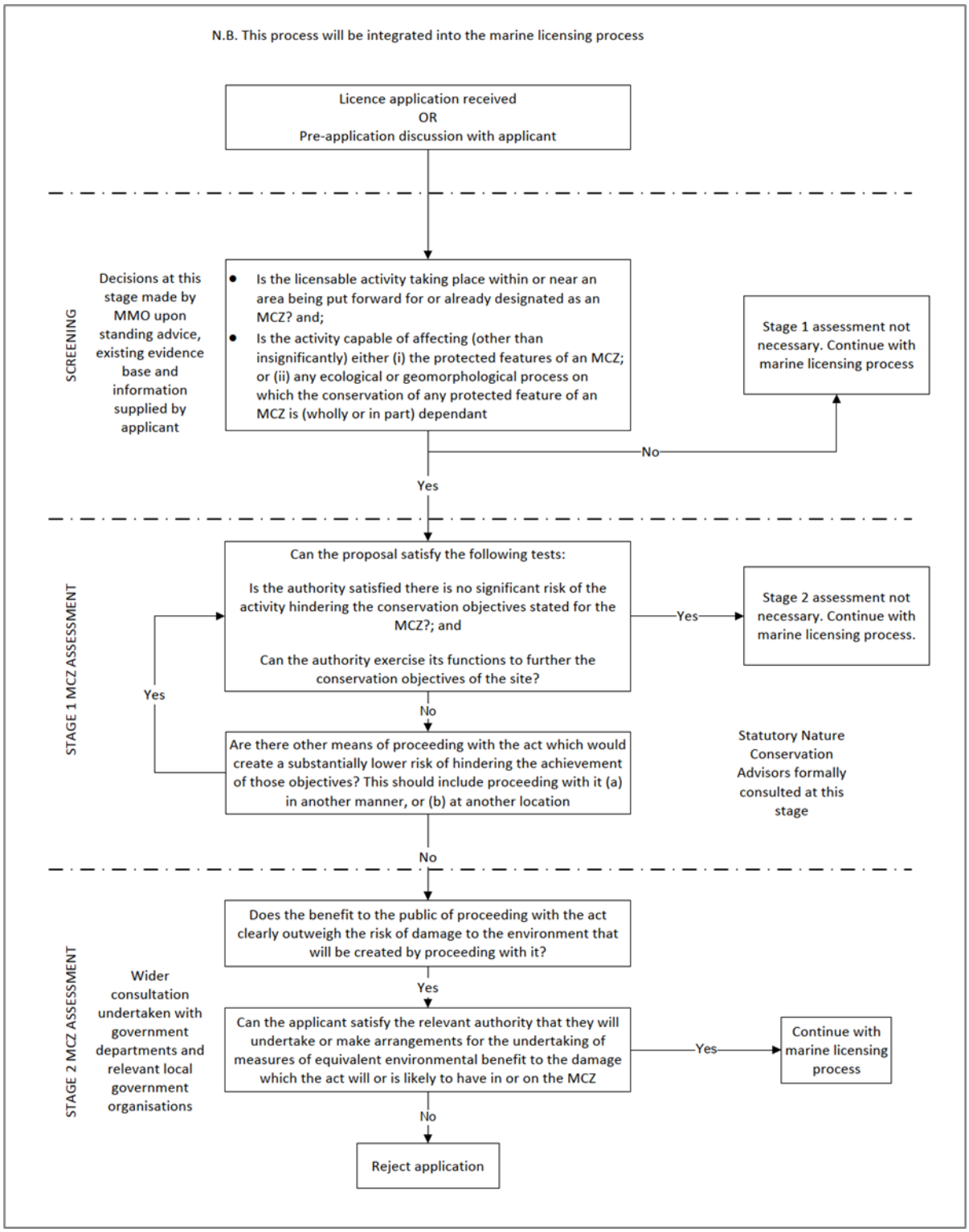

Plate 3-1: Summary of the MCZ assessment process used by the MMO in marine licence decision making (MMO guidance 2013)

4. Potential Impacts, Effects and Zones of Influence

4.1 Overview

4.1.1 The designated features of identified MCZs and HPMAs fall into one or multiple of the following receptor groups:

- Intertidal and subtidal benthic habitats;
- Subtidal benthic species;
- Migratory fish; or
- the presence of marine mammals (pinnipeds and cetaceans).

4.1.2 The OSPAR Intersessional Correspondence Group on Cumulative Effects pressure list and the Marine Life Information Network (MarLIN) marine evidence-based sensitivity assessments (MarESA) have been used to describe the potential impacts expected from the Marine Works on these receptor groups.

4.1.3 Consideration has been given to potential pathways associated with the Marine Works. In this review of pathways, it has been possible to determine that significant effects would not arise on the relevant receptor groups from a number of pathways, whilst other require consideration.

4.1.4 **Section 4.2** provides a summary of the impact pathways scoped out along with supporting justification. **Section 4.3** provides a summary of the impact pathways scoped in with supporting justification.

4.2 Impact Pathways Scoped Out

4.2.1 The following potential impact pathways have been which have been scoped out of further consideration within this report:

- **Direct loss and physical disturbance to benthic habitats and species within the Zone of Influence (ZoI)** – The Marine Works will use the existing outfall infrastructure. New piping will be placed inside the existing infrastructure and therefore there will be no placement of new permanent hard structures on the seabed which are not already in place. As a result, permanent direct habitat loss is not expected to occur and this pathway is scoped out.
- **Indirect effects to marine ecology from changes in existing thermal and chemical outputs from effluent discharge** – These discharges and their impacts are assessed in detail during the process for applying for a permit (or a variation) and are regulated by the Environment Agency through routine regulatory interactions. Therefore, this impact pathway is scoped out.
- **Indirect effects to marine ecology from hydromorphology changes (i.e. changes to water flow or sediment movement and processes) within the ZoI** – The Marine Works do not include the placement of any permanent new structures on the seabed. Temporary anchor chains and

JUB legs would introduce temporary disturbance. No changes to the current hydromorphological baseline are expected so this impact pathway is scoped out.

- **Physical disturbance and potential for mortality to marine ecology from entrainment and impingement within the cooling water abstraction infrastructure** – The existing intake infrastructure will be sealed within the terrestrial portion of the Works Area, with the marine section remaining in situ. Therefore, the risk of potential entrainment and impingement has been avoided. Therefore, this impact pathway is scoped out.
- **Introduction and spread of Invasive Non-Native Species (INNS)** – The Marine Works do not involve the placement of any new materials which will be exposed to the marine environment for a prolonged period of time, which any INNS could colonise. Furthermore, as part of embedded mitigation measures, all vessels would be required to comply with International Convention for the Control and Management of Ships' Ballast Water and Sediments to prevent the spread of marine INNS, and IMO Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species ((see Section 13.5). Therefore, the risk of introduction and spread of INNS is considered highly unlikely and this impact pathway is scoped out.
- **Barriers to migration** – given (i) the location of the Marine Works, i.e. a maximum of approximately 160m offshore from the Dungeness coastline, (ii) the short-term duration of the Marine Works in the marine environment and (iii) the limited potential pathways for impact, there is considered to be no barrier to migration for both migratory fish and marine mammals. Therefore, this impact pathway is scoped out.
- **Indirect effects to marine ecology from changes in water quality, including accidental spills and leaks from vessels** – the Marine Works are only expected to require a small number of vessels / barges. With the adoption of embedded mitigation measures such as the International Convention for the Prevention of Pollution from Ships (the MARPOL Convention 73/78), and best practice techniques to related to water quality during construction (e.g., the management of construction site runoff, spillage risk and the dispersion of suspended sediments; see **Chapter 19: Water Environment and Flood Risk**), there is considered to be negligible risk to water quality in the marine environment. Therefore, this impact pathway is scoped out.

4.3 Impact Pathways Scoped In

4.3.1 Following a screening exercise, a summary of potential impact pathways to these receptor groups and associated ZoIs are presented in **Table 4-1**. These ZoIs identify the area in which an impact could occur and are different to the screening distances defined in **Section 5.2.** The screening distances are used to determine receptors that might pass through the ZoI and could therefore be impacted by the Marine Works.

4.3.2 The ZoIs provided in **Table 4-1** are indicative at this stage, based on previous experience and will be confirmed as part of the Environmental

Assessment. Should any of these assumptions change during the Environmental Assessment, this screening position will be revisited.

Table 4-1: Summary of potential impact pathways and associated ZoI

Potential Impact Pathway	Receptor	Zone of Influence
Temporary underwater noise	Fish and marine mammals	100 km*
Temporary airborne noise and visual effects	Seals	60 km*
Temporary physical disturbance to subtidal benthic habitats and species	Benthic habitats and species	Highly localized (~/<10m)
Collision risk with vessels	Marine Mammals	Highly localized (~/<10m)
Temporary increase in suspended sediment concentrations (SSC) sediment deposition	Benthic habitats and species	8 km

** Arbitrary distance as construction methods are currently not known and can be defined in the next stage*

Temporary Underwater Noise

4.3.3 Underwater noise may be produced during Marine Works, particularly when inserting the new discharge lines into the existing outfall infrastructure. The exact methodology to be used has not yet been confirmed but is expected to include some drilling. The use of vessels / barges is also required and is likely to produce underwater noise.

4.3.4 Once specific project activities have been confirmed, the sound characteristics for each sound source likely to be produced during the Marine Works can be determined based on a significant body of publicly available online literature concerning values for common sound generating activities which draw on previous projects and developments. Details on assumed sound intensity and operating frequency can also be inferred from available data sources. Once operating frequencies and sound levels have been established from the likely sound sources, they can then be compared to the hearing range of fish and marine mammals to determine whether the hearing range and frequency of sound-generating Marine Works activities overlap.

4.3.5 The process for determining underwater sound impacts on marine receptors is not straightforward. Marine mammals and fish, considered to be the marine receptors most sensitive to underwater sound and therefore at risk of potential impact, respond to underwater sound differently. Furthermore, the propagation of underwater sound in a marine environment can be dependent on several factors including water depth, seabed features and distance from the sound source. To obtain accurate measurements of underwater sound propagation and sound levels at a set distance from the sound (i.e. 100 m, 200 m, 1 km), high-level modelling and/or calculations may be required which also factor in site-specific environmental conditions. To assess effects on marine receptors, the modelling results can be compared to thresholds and relative risk ratings provided by Popper, et al., 2014, (for fish) and

exposure criteria for auditory injury provided by United States National Marine Fisheries Service (National Marine Fisheries (NMFS), 2024) (for marine mammals).

Temporary Airborne Noise and Visual Effects

4.3.6 Both harbour and grey seals are known to rest and haul-out on Dungeness Beach and forage in coastal waters between Dungeness and Rye Bay.

4.3.7 Seals can be sensitive to disturbance and auditory injury from anthropogenic noise and the presence of construction equipment. Therefore, potential effects from airborne noise disturbance (including auditory injury and disturbance behaviour) and changes in visual stimuli during the construction of the Marine Works could occur.

4.3.8 Baseline airborne noise monitoring will be conducted in support of the assessments or the Proposed Works. This will include monitoring at locations along Dungeness Beach where seals are frequently observed. Once the specific equipment and plant requirements for the construction phase are confirmed, airborne noise modelling will be carried out in the next stage of the assessment. The results will then be compared against the established baseline data.

Temporary Physical Disturbance

4.3.9 The temporary use of anchors on the seabed to maintain position of barges and the placement of JUB legs during construction of the Marine Works could result in temporary disturbance to benthic habitats and species present in the surrounding subtidal area. The exact number of vessels required and therefore the number of anchor points required is currently unknown. However, the equipment list is expected to include one jack-up barge (JUB), one barge, one tug and one safety boat with temporary seabed anchors.

4.3.10 The area of temporary disturbance is considered to be low and limited to the footprint of the anchors, anchor chains and JUB legs. However, this will be assessed in more detail once the parameters of the Marine Works have been determined.

Collision Risk with Vessels

4.3.11 The operation of vessels and barges in subtidal waters close to the shoreline has the potential to increase collision risk with marine mammals, particularly due to the regular use of waters in the Study Area by seals, harbour porpoise (*Phocoena phocoena*) and dolphins ((EDF Energy, 2016), (EDF Energy, 2019), (EDF Energy, 2021), (EDF Energy, 2023)). The exact number of vessels and barges required during the Marine Works has not yet been confirmed however it is likely to include one jack-up barge (JUB), one barge, one tug and one safety boat with temporary seabed anchors.

Temporary Increase in Suspended Sediment Concentrations (SSC) Sediment Deposition

4.3.12 The placement of anchors, anchor chains and JUB legs on the sea floor could result in disturbance to sediment, leading to increased SSC and sediment plumes. Sediment plumes can result in smothering of benthic

invertebrates and some fish and shellfish species, leading to clogged respiratory systems and in some cases mortality of fish eggs and larvae.

5. Screening

5.1 Approach

5.1.1 The assessment approach applied during the MCZ screening is based on the guidance document 'Marine Conservation Zones and Marine Licensing' (MMO, 2013) and presented in **Plate 5-1**.

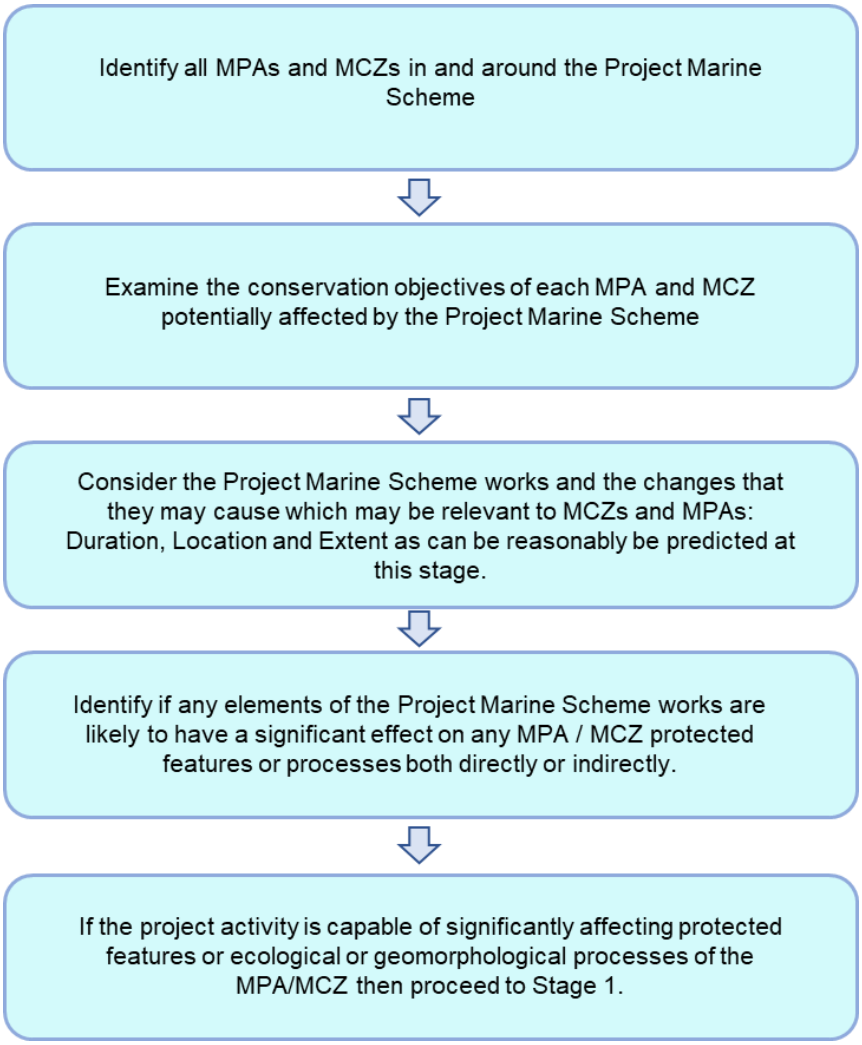

Plate 5-1: MCZ Screening Process

5.1.2 A geographic information system (GIS) was used to map boundaries of MCZs and HPMAs in relation to the Marine Works. To determine whether a sensitive receptor has the potential to interact with the Marine Works it is necessary to understand the nature and existing baseline for the designated biodiversity features. Information on the designated biodiversity features for the MCZs (Intertidal and subtidal benthic habitats', 'Subtidal benthic species', 'Migratory fish' or the presence of 'marine mammals) screened into this assessment are presented in **Table 5-2**.

5.1.3 This information has been used to inform the examination of designated biodiversity features of the MCZs and HPMAs against potential impacts to determine if there is a pathway for effect.

5.2 Screening Distance

5.2.1 The Marine Works are not directly located within any MCZs or HPMAs. In line with the precautionary approach recommended by the MMO, the screening process has considered all MCZs and HPMAs within at least 8 km of the Marine Works. This distance is based on local tidal excursion data (ABPmer, 2025) and represents the largest likely zone of influence arising from water movement and sediment transport. However, as some marine species—such as marine mammals and migratory fish—are highly mobile receptors, a larger distance has been applied where appropriate for specific MCZ or HPMA features, reflecting the ecological range or zone of influence (ZoI) of relevant receptors. For example, seals have been considered within a range of up to 448 km, reflecting the maximum typical foraging range of grey seals (*Halichoerus grypus*), while migratory fish have been screened up to 100 km based on their migration corridors and seasonal movement ranges (**Table 5-1**).

Table 5-1: MCZ Feature Screening Distances

MCZ Features*	Screening Distance	Reasoning
Benthic habitats, species and shellfish	8 km	Based on the local tidal excursion (ABPmer, 2025)
Migratory Fish	100 km	Arbitrary distance to encompass migratory routes and also considering regional approach as recommended by ABPmer 2014.
Seals	448 km	Based on maximum foraging range for grey seal
Cetaceans	100 km	Based on underwater noise ZoI (**Table 4-1**)

*It is not considered appropriate to define a single holistic screening distance for ornithological features noting variance in foraging ranges between species.

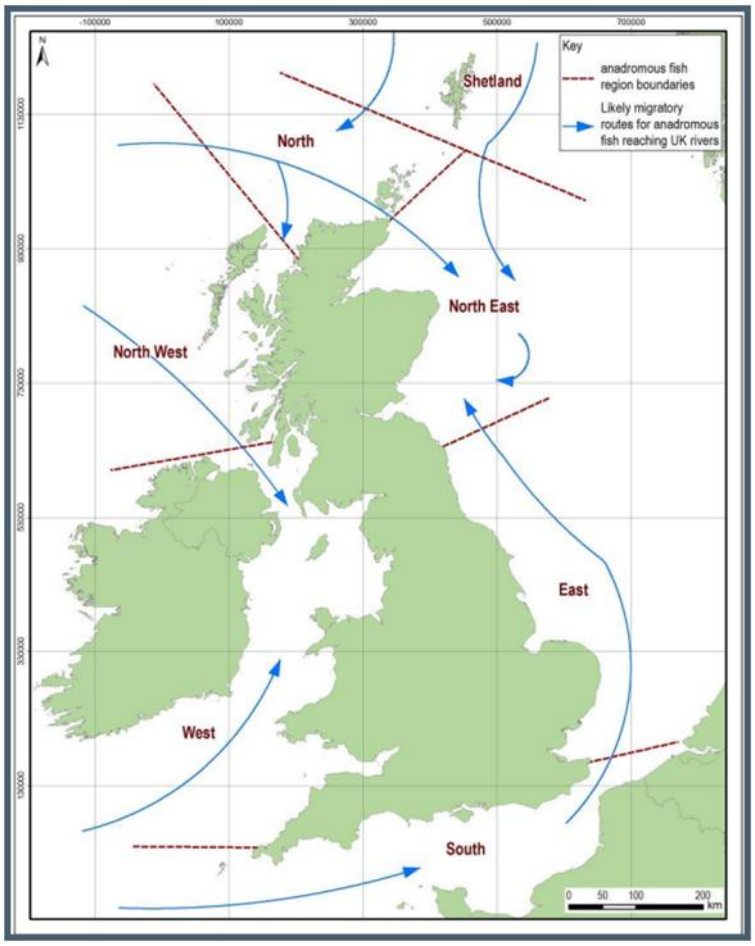

Plate 5-2 Location and Extent of Coastal Regions to be used for Screening Fish Qualifying Interests (provided by ABPMer 2014)

5.2.2 Only the following MCZs have been identified to be relevant to this report as they fall withing the screening distances for the relevant protected feature defined in **Table 5-1**:

- Medway Estuary MCZ – Zone 2 for migratory fish; and
- Dolphin Head HPMA for migratory fish, seals and cetaceans.

5.3 Medway Estuary MCZ – Zone 2

Designation

5.3.1 Medway Estuary MCZ was designated in November 2013, with a small extension added in May 2019 specifically to include smelt (*Osmerus eperlanus*); for all other features, the original boundary remains. The site covers approximately 60km², extending from Rochester to the estuary mouth and seaward between Sheerness and the Isle of Grain (Goverment, UK, 2019).

5.3.2 Protected habitats include:

- Mud and sand habitats supporting invertebrates and nursery grounds for commercially important fish such as bass (*Dicentrarchus labrax*), herring (*Clupea harengus*), cod (*Gadus morhua*), plaice (*Pleuronectes platessa*), and sole (*Solea solea*);

- Peat and clay exposures, ancient habitats supporting burrowing bivalves (piddocks) that provide shelter for other species; and
- Intertidal habitats, which support local bird populations, including colonies of Sandwich terns (*Sterna sandvicensis*) at Burntwick Island.

5.3.3 Protected species include:

- Tentacled lagoonworm (*Alkmaria romijni*), a nationally scarce bristleworm found in mud habitats.
- Smelt, which use the estuary for spawning, feeding, and post-larval development, and serve as an indicator of ecosystem health.

5.3.4 Smelt was added to the designation of the MCZ with the conservation objective to recover to favourable condition. Smelt were once widespread in estuaries in the UK but have declined considerably over the past 200 years (Defra, 2019). A migratory fish, they are known to congregate in large shoals in lower estuaries and to migrate into freshwater where they spawn in spring. Estuaries, such as the Medway, therefore, provide critical habitats for smelt lifecycles. Smelt are viewed as an indicator of ecosystem health, being very sensitive to a broad range of environmental degradations, including overfishing, loss of spawning habitat, blockage to migration and water quality impacts.

Screening Outcome

5.3.5 At 55 km from the Marine Works, The Medway Estuary MCZ falls within the screening distance of migratory fish (**Figure 13A-1**, **Table 5-1**), but outside of the ZoIs associated with the impact pathways (**Table 4-1)**. However, smelt have the potential to migrate through the Study Area and be impacted by the Proposed Work activities, including from the following impact pathways:

- Temporary underwater noise;
- Temporary physical disturbance to subtidal benthic habitats and marine species; and
- Temporary increase in SSC sediment deposition.

5.3.6 The Medway Estuary MCZ has been screened in for Stage 1 assessment using the precautionary principle due to uncertainty, to ensure that the direct and indirect impact pathways that may affect smelt as a protected feature is considered further and assessed (**Table 5-2**).

5.4 Dolphin Head HPMA

Designation

5.4.1 Dolphin Head is an offshore HPMA situated beyond the 12 nautical mile territorial sea limit in the Eastern English Channel region, covering 466 km^2 (UK Goverment, 2023).

5.4.2 The conservation objective of Dolphin Head HPMA is to:

- Achieve full recovery of the protected feature, including its structure and functions, its qualities and the composition of its characteristic biological communities present within the Dolphin Head HMPA, to a natural state; and
- Prevent further degradation and damage to the protected feature, subject to natural change

5.4.3 HPMAs protect the entire marine ecosystem within the HPMA boundary. Dolphin Head HPMA encompasses a range of benthic and demersal habitats that support a diverse assemblage of marine species incl. migratory fish species such as the Atlantic cod (Joint Nature Conservation Committee and Natural England, 2022). The site is also known to be utilised by mobile species, including seabirds such as common guillemot (*Uria aalge*), lesser black-backed gull (*Larus fuscus*), and Northern gannet (*Morus bassanus*), as well as marine mammals the harbour porpoise and grey seal.

5.4.4 Among the key seabird species associated with the HPMA (Joint Nature Conservation Committee and Natural England, 2022), the fulmar (*Fulmarus glacialis*) exhibits the greatest foraging range, at 542.3 ± 657.9 km (mean ± SD) (Ian Woodward, 2019). As project specific bird surveys are ongoing, it is not possible to rule out potential effects on seabird species associated with the HPMA. Once the surveys are complete it may be possible to confirm effects on key species associated with the HPMA would not arise.

5.4.5 Most cetacean species are more common in deeper offshore waters. However, harbour porpoise is commonly recorded in Dungeness waters. Regular monitoring of the Dungeness coastline as part of the EDF Land Management Annual Review has noted regular recordings of harbour porpoise in Dungeness coastal waters, with daily numbers in the 2021 report regularly reaching more than 50 individuals depending on tidal and sea state conditions (EDF Energy, 2021), although numbers in 2023 were comparatively lower. Peak counts are typically observed during late spring through to the summer months. However, the Land Management Reviews from 2012 to 2021 regularly note harbour porpoise presence throughout the year in varying abundances. White-beaked dolphin (*Lagenorhynchus albirostris*) and bottlenose dolphin (*Tursiops truncatus*) have also been occasionally recorded off Dungeness Point as part of the Land Management Reviews ((EDF Energy, 2016) (EDF Energy, 2019) (EDF Energy, 2021) (EDF Energy, 2023)). The Dungeness Bird Observatory also regularly record the presence of harbour porpoise in waters offshore from Dungeness (Dungeness Bird Observatory, 2025).

5.4.6 The closest seal haul-out site to the Marine Works is located in Rye Harbour Nature Reserve on the River Rother, approximately 13 km west of the

Marine Works. A larger haul-out site for both species can also be found on Goodwin Sands (Thea Cox, 2020) where harbour seal are reported to breed and pup. Goodwin Sands is located approximately 44 km north of the Marine Works. Small numbers of both harbour seal (*Phoca vitulina*) and grey seal are regularly observed resting in the inlets of the River Rother and swimming in the inshore waters of the harbour mouth and neighbouring Rye Bay. Both species are also regularly observed resting on Dungeness beach in small numbers and swimming in the surrounding coastal waters (EDF Energy, 2021), (EDF Energy, 2023)). Therefore, both harbour and grey seal are expected to be present in waters surrounding the Marine Works.

Screening Outcome

5.4.7 The Dolphin Head HPMA is around 120 km southwest from the Marine Works, falls within screening distance of seals (**Figure 13A-1**, **Table 5-1**) but not within any identified ZoI (**Table 4-1**). However, seabirds, have the potential to be present within the Study Area and be impacted by the Proposed Project activities, including from the following impact pathways (**Table 4-1**):

- Temporary airborne noise and visual effects.

5.4.8 Migratory fish associated with the HPMA could potentially cross the Study Area and be impacted by the following impact pathways (**Table 4-1**):

- Temporary underwater noise;
- Temporary physical disturbance to subtidal benthic habitats and marine species; and
- Temporary increase in SSC sediment deposition.

5.4.9 Harbour porpoise is common in Dungeness coastal waters, and therefore can be impacted by the following impact pathways (**Table 4-1**):

- Temporary underwater noise; and
- Collision risk with vessels.

5.4.10 As grey seal are commonly seen in the coastal waters surrounding Marine Works and observed resting on Dungeness beach, they can be impacted by the following impact pathways (**Table 4-1**):

- Temporary underwater noise;
- Collision risk with vessels; and
- Temporary airborne noise and visual effects.

5.4.11 The Dolphin Head HPMA has been **screened in for Stage 1 assessment** using the precautionary principle, to ensure that the impact pathways that may affect the seabirds, migratory fish, harbour porpoise, grey seal protected feature is considered further and assessed (**Table 5-2**).

5.5 Conclusions of screening

5.5.1 **Table 5-2** provides a summary of the screening outcomes and identifies where further assessment is required in Stage 1.

Table 5-2: Summary of MCZs Screened into the Stage 1 of the MCZ Assessment for the Proposed Works

Site Name	Protected Feature	Distance from Marine Works [km]	Potential Impact Pathway	Screening decision
Medway Estuary MCZ	• Estuarine rock habitats; • Intertidal mixed sediments; • Intertidal sand and muddy sand; • Low energy intertidal rock; • Peat and clay exposures; • Subtidal coarse sediment; • Subtidal mud; • Subtidal sand; • Tentacled lagoon-worm *Alkmaria romijini*; and • Smelt *Osmerus eperlanus.*	55	• Temporary underwater noise • Temporary physical disturbance to subtidal benthic habitats and marine species • Temporary increase in SSC sediment deposition	This MCZ falls outside of the ZoIs associated with the impact pathways. However, smelt have the potential to migrate through the Study Area and can be impacted by the Marine Works. Due to the potential for the given potential impact pathway to have an impact on the conservation objectives of the smelt in Medway Estuary MCZ, this site has been **screened in for Stage 1 assessment.**
Dolphin Head HPMA	Entire marine ecosystem within the boundaries, incl.: • range of benthic and demersal habitats • marine species incl. migratory fish species • seabirds • marine mammals (seal and cetacean)	120	• Temporary underwater noise • Collision risk with vessels • Temporary airborne noise and visual effects • Temporary physical disturbance to subtidal benthic habitats and marine species	This HPMA falls outside of the ZoIs associated with the impact pathways. However, seabirds and migratory fish have a potential to be present / cross the Study Area of the project and marine mammals (harbour porpoise, harbour seal and grey seal) are commonly seen in the Study Area and can be impacted by the Proposed Project Activities. Due to the potential for the given potential impact pathway to have an impact on the conservation objectives of seabirds, harbour porpoise, migratory fish, and grey seal of Dolphin Head HPMA, this site has been **screened in for Stage 1 assessment.**

6. Summary and Conclusions

6.1.1 The report forms the first stage of the MCZ assessment process. It considered the location and scale of the Marine Works to screen potential effects.

6.1.2 The screening exercise concluded that there is a potential risk of the Marine Works affecting the designated features and/or conservation objectives of the Medway Estuary MCZ and Dolphin Head HPMA due to conservation objectives of these sites falling within the ZoIs of the following impact pathways:

- Temporary physical disturbance;
- Temporary underwater noise;
- Collision risk with vessels;
- Temporary airborne noise and visual effects; and
- Temporary increase in SSC sediment deposition.

6.1.3 It has therefore been concluded that a Stage 1 assessment is necessary for both the Medway Estuary MCZ and the Dolphin Head HPMA.

6.1.4 This will ensure that potential impact pathways affecting the smelt at Medway Estuary MCZ, and the seabird, migratory fish, harbour porpoise, and grey seal features at Dolphin Head HPMA, are identified and appropriately assessed.

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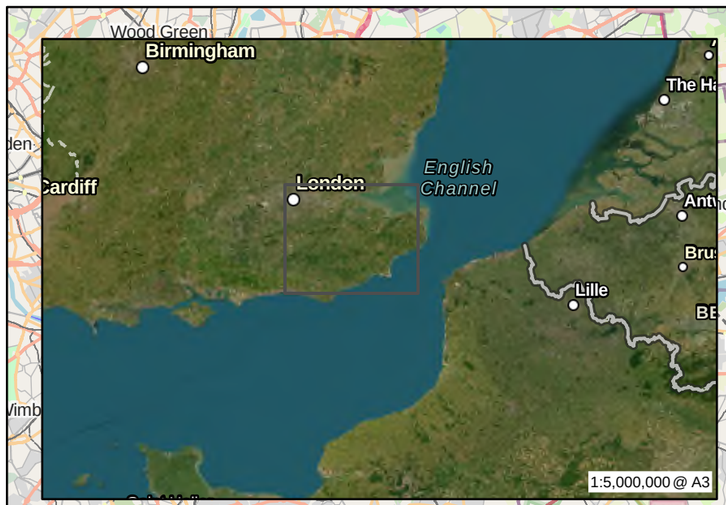

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AECOM

PROJECT

Dungeness B Nuclear Decommissioning

CLIENT

EDF Energy Nuclear Generation Limited

CONSULTANT

AECOM Limited
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United Kingdom

LEGEND

- Proposed Work Area
- Medway Estuary MCZ – Zone 2

NOTES

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ISSUE PURPOSE

EIA Scoping Report

PROJECT NUMBER

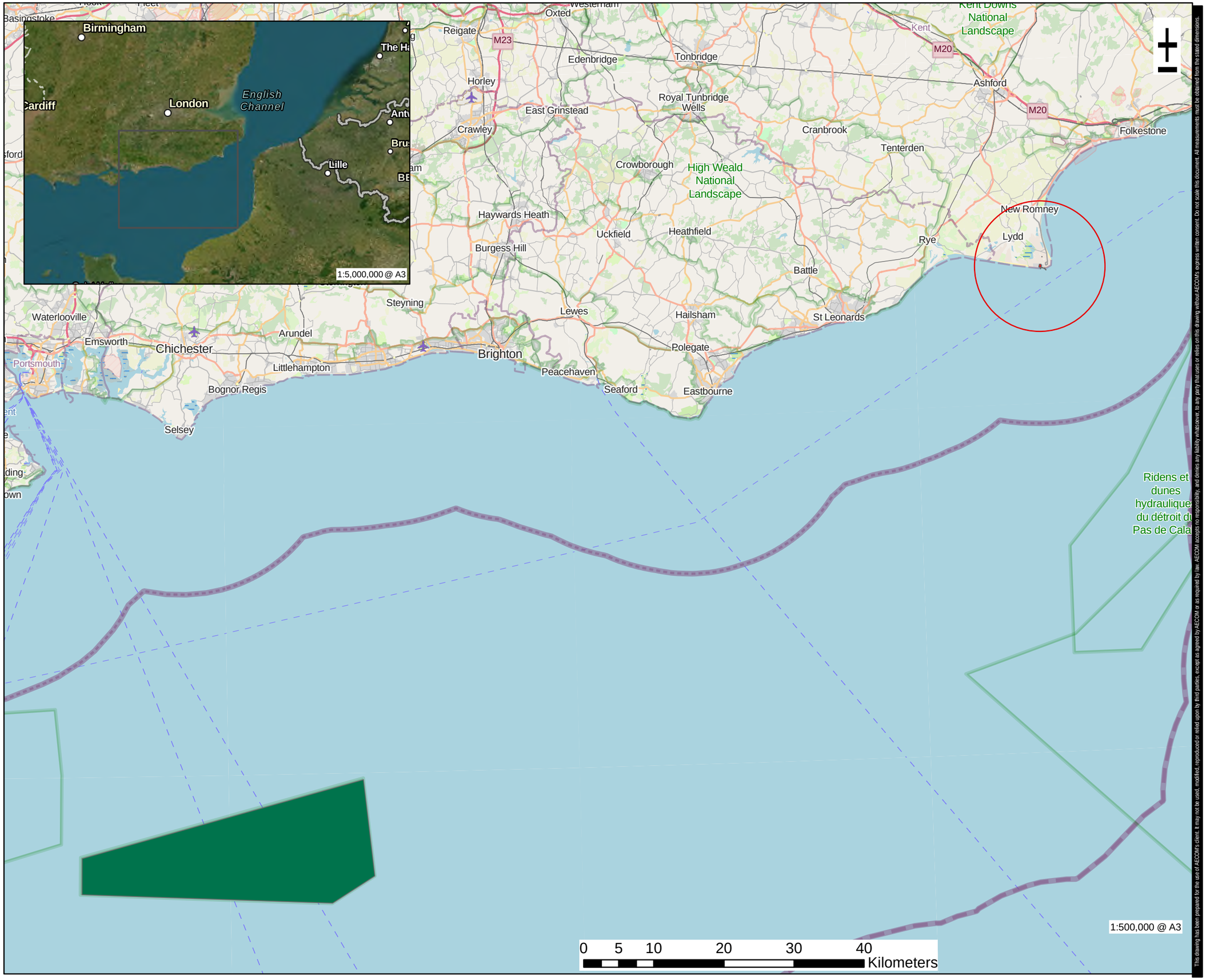
60739933

FIGURE TITLE

Proposed Work Area and Medway Estuary MCZ - Zone 2

FIGURE NUMBER

Figure 13A-1



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ISSUE PURPOSE

EIA Scoping Report

PROJECT NUMBER

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FIGURE TITLE

Proposed Work Area and Dolphin Head Highly Protected Marine Area (HPMA)

FIGURE NUMBER

Figure 13A-2

Appendix 18A Ecology Desk Study Report (Redacted)

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1. Introduction

1.1 Background

1.1.1 AECOM was appointed by EDF Energy Nuclear Generation Limited (NGL) to undertake a desk study for the proposed decommissioning of Dungeness B nuclear power station in Kent.

1.1.2 The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) (EIADR)[1] require the environmental impact of decommissioning nuclear power stations to be considered. The EIADR applies for the duration of a decommissioning project from the point at which the nuclear reactor is permanently disabled to final site clearance.

1.1.3 This desk study report has been prepared to collate existing information held on designated sites, habitats and protected or otherwise notable species in the study area, in support of the terrestrial ecology assessment required under the EcIA to be submitted in a future application to the Office for Nuclear Regulation (ONR) for EIADR consent for Dungeness B decommissioning.

1.1.4 The Works Area is the land required for decommissioning under the EIADR consent and comprises the Dungeness B Nuclear Site Licence (NSL). For the purposes of this report the Works Area is divided into the following areas:

- **Area A** – the main area of the existing Dungeness B, comprising all land and associated infrastructure within the existing double security fence boundary and the adjacent car park;
- **Area B** – the area associated with the B1 Hanger, an existing storage hanger, laydown area and conventional waste storage compound;
- **Area C** – the area associated with the existing back-up cooling water infrastructure at the Long Pits, an existing onshore waterbody
- **Area D** of the Works Area is associated with the existing cooling water infrastructure comprising the intake and outfall culverts located within the English Channel and foreshore and is not considered further within this report.

1.1.5 The aim of the ecological desk study is to summarise all statutory and non-statutory designated sites within a 3km radius (10km radius for internationally designated sites) of the Works Area. The desk study also aims to summarise protected and/or notable species within a 3km radius of the Works Area.

1.1.6 The following report details the methodology utilised and presents a summary of the relevant records of protected and/or notable sites, species and habitats. Further details of the desk study data as obtained from Kent

[1] Office for Nuclear Regulation (2023) Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) Available at: https://www.onr.org.uk/eiadr.htm#:~:text=The%20Nuclear%20Reactors%20(Environmental%20Impact,consent%20for%20the%20decommissioning%20project [Accessed 07/09/23]

and Medway Biological Records Centre (KMBRC) can be supplied by AECOM on written application.

2. Methods

2.1 Desk Study

2.1.1 A desk study was undertaken to place the Works Area in context of the ecological value of the local area. The desk study was carried out to identify nature conservation designations including European level statutory designated sites (i.e. Special Areas of Conservation (SAC); Special Protection Areas (SPA); and Ramsar sites). Details of European level statutory designated sites were sought within a 10km search area from the Works Area. Details of national and local level designated statutory sites (e.g. Site of Special Scientific Interest (SSSI)) and non-statutory designated wildlife sites (e.g. Local Wildlife Sites (LWS)) were also sought within a search area of 3km from the Works Area.

2.1.2 Records of all legally protected and/or otherwise notable species previously recorded within a 3km radius of the Works Area were requested from a variety of sources as detailed in **Table 1** below.

Table 1: Desk Study Data Sources

Data source	Accessed	Data obtained
Multi-Agency Geographic Information for the Countryside (MAGIC) website[2]	10/02/2026	International statutory designations within 10km Other statutory designations within 3km SSSI - impact zones Ancient Woodland and notable habitats within 3km
Kent and Medway Biological Records Centre (KMBRC) Data Search[3]	23/06/2023 and updated 04/06/2025[4]	Non-statutory designations within 3km Protected and notable species records within 3km (records for the last 10 years only)

[2] Department for Environment, Food and Rural Affairs (DEFRA) Multi-Agency Geographic Information for the Countryside. Available at: MAGIC [Accessed 03/03/2026]
[3] Kent and Medway Biological Records Centre (2023) Report regarding Dungeness B, 23/06/2023
[4] Kent and Medway Biological Records Centre (2025) Report regarding Dungeness B, 04/06/2025

Data source	Accessed	Data obtained
Registers of European sites[5],[6],[7],[8],[9]	10/02/2026	Site descriptions and qualifying features or species present for European sites identified as part of the desk study.
EDF Dungeness Land Management Annual Reviews between 2015 and 2023[10],[11],[12],[13],[14],[15],[16],[17],[18]	10/02/2026	Records from monitoring visits for various habitats and species within the EDF Dungeness landholding.
Kent Bat Migration Study[19]	30/06/2023	Summaries of bat records collected at Dungeness as part of the Kent Bat Migration Study.

2.1.3 In addition, available Wetland Bird Survey (WeBS) data was consulted to inform the desk study. WeBS is a joint scheme run by the British Trust for Ornithology (BTO), the Wildfowl & Wetlands Trust (WWT), Royal Society for the Protection of Birds (RSPB) and Joint Nature Conservation Committee (JNCC) to monitor non-breeding wetland birds in the UK[20]. The scheme aims to identify population sizes, to determine trends in numbers and distribution, and to identify important sites for wetland birds. Monthly coordinated 'core' counts are made during high tide periods, principally from September to March.

2.1.4 Summary WeBS data[21] were obtained for the five-year period of 2019/20 to 2022/24 (the most recent data available), for the Dungeness and Rye Bay

[5] Natural England (2014) Dungeness SAC Citation. Available at: https://publications.naturalengland.org.uk/publication/5252874560864256 [Accessed 03/03/2026]
[6] Natural England (2016) Register of European Sites: Register entry UK9012091 under Regulation 13 of The Conservation of Habitats and Species Regulations 2010, Dungeness, Rye Bay and Romney Marsh SPA. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509225/dungeness-romney-rye-spa-documents.pdf [Accessed 03/03/2026]
[7] Natural England (2016) Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Dungeness, Rye Bay and Romney Marsh Ramsar site. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509228/dungeness-romney-rye-ramsar-documents.pdf [Accessed 03/03/2026]
[8] Natural England (2006) Dungeness, Romney Marsh and Rye Bay SSSI Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/2000533.pdf [Accessed 03/03/2026]
[9] Natural England (2006) Designated Sites View: Dungeness NNR Available at: https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=1007131&SiteName=dungeness&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= [Accessed 03/03/2026]
[10] EDF (2015) Dungeness Annual Land Management Review 2015.
[11] EDF (2016) Dungeness Annual Land Management Review 2016.
[12] EDF (2017) Dungeness Annual Land Management Review 2017.
[13] EDF (2018) Dungeness Annual Land Management Review 2018.
[14] EDF (2019) Dungeness Annual Land Management Review 2019.
[15] EDF (2020) Dungeness Annual Land Management Review 2020.
[16] EDF (2021) Dungeness Annual Land Management Review 2021.
[17] EDF (2022) Dungeness Annual Land Management Review 2022.
[18] EDF (2023) Dungeness Annual Land Management Review 2023.
[19] BSG Ecology (2013) Kent Bat Migration Research Baseline Report. Available at: https://www.bsg-ecology.com/wp-content/uploads/2015/01/Kent-Bat-Migration-Research-Baseline-Report__12122013.pdf [Accessed 03/03/2026]
[20] Wetland Bird Survey. Available at: https://www.bto.org/our-science/projects/wetland-bird-survey [Accessed 10/02/2026]
[21] Austin, G.E., Calbrade, N.A., Birties, G.A., Peck, K., Shaw, J.M., Wotton, S.R., Balmer, D.E. and Frost, T.M. (2023) Waterbirds in the UK 2021/22. The Wetland Bird Survey and Goose and Swan

site (22302), including the five year average data. Fourteen WeBS Sectors make up this site, which includes Dungeness Beach (22305) and Long Pits (22795). No low tide data is available for any of the sectors. Core count data was not obtained at this stage for Dungeness Beach or Long Pits. It is anticipated that this additional WeBS data will be obtained in support of the terrestrial ecology assessment required under the EcIA, to supplement the wintering bird survey data collected.

2.2 Limitations

2.2.1 The aim of a desk study is to help characterise the baseline context of the Works Area and provide valuable background information.

2.2.2 Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.

2.2.3 All distances given are approximate and indicative.

2.3 Quality Assurance

2.3.1 AECOM Ecologists are members, at the appropriate level, of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct when undertaking ecological work.

Monitoring Programme. BTO/RSPB/JNCC/Nature Scot, Thetford. Available at: http//ww.bto.org/volunteer-surveys/webs/publications/webs-annual-report

3. Results

3.1 Designated Sites

Statutory Designated Sites

3.1.1 The locations of statutory designated sites relative to the Works Area are shown on **Figure 18A-1**. There are three statutory designated sites of international status located within 10km of the Works Area namely Dungeness SAC, Dungeness Romney Marsh and Rye Bay SPA and Dungeness Romney Marsh and Rye Bay Ramsar site. The locations of these designated sites relative to the Works Area are provided within **Table 2**.

3.1.2 All of the Works Area is located within the SSSI impact zone for the Dungeness, Romney Marsh and Rye Bay SSSI. All developments within or in very close proximity to the SSSI present a range of risks of direct impacts requiring consultation with Natural England and the local planning authority.

Table 2: Details of Statutory Designated Sites for Nature Conservation within Search Area

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area	Designated Site Area (ha)
Dungeness Special Area of Conservation (SAC)	Dungeness is the UK's largest shingle structure. The site retains very large areas of intact parallel ridges with characteristic zonation of vegetation. It has the most diverse and most extensive examples of stable vegetated shingle in Europe, including the best representation of scrub on shingle, notably prostrate forms of broom *Cytisus scoparius* and blackthorn *Prunus spinosa*. A feature of the site, thought to be unique in the UK, is the small depressions formed within the shingle structure, which support fen and open-water communities. The Dungeness foreland has a very extensive and well-developed shoreline, although with sparse vegetation. The strandline community on this site comprises Babington's orache *Atriplex glabriuscula*, which occurs mostly on the accreting eastern shoreline, although it is also present on the eroding southern shoreline. This extensive site also hosts a large and viable great crested newt population in a range of natural and anthropogenic habitats. These include natural pools and those resulting from gravel extraction and other activities. Terrestrial habitat of importance for feeding and shelter is provided by a range of open shingle vegetation with scrub in the vicinity of some of the waterbodies.	60m from Area A of the Works Area at the closest point. Adjacent to Area B of the Works Area at the closest point. Area C is located within the SAC.	3141.118

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area	Designated Site Area (ha)
	The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I: • Annual vegetation of drift lines. • Perennial vegetation of stony banks. (Coastal shingle vegetation outside the reach of waves). The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II: • Great crested newt.		
Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA)	Dungeness, Romney Marsh and Rye Bay is located on the south coast of England, on the border of East Sussex and Kent between Hastings and New Romney. This is a large area with a diverse coastal landscape comprising a number of habitats, which appear to be unrelated to each other. However, all of them exist today because coastal processes have formed and continue to shape a barrier of extensive shingle beaches and sand dunes across an area of intertidal mud and sand flats. The site includes the largest and most diverse area of shingle beach in Britain, with low-lying hollows in the shingle providing nationally important saline lagoons, natural freshwater pits and basin fens. Rivers draining the Weald to the north were diverted by the barrier beaches, creating a sheltered saltmarsh and mudflat environment, which was gradually in-filled by sedimentation, and then reclaimed on a piecemeal basis by man. Today this area is still fringed by important intertidal habitats, and contains relict areas of saltmarsh, extensive grazing marshes and reedbeds. Human activities have further modified the site, resulting in the creation of extensive areas of wetland habitat due to gravel extraction. As a whole, Dungeness, Romney Marsh and Rye Bay is important for breeding and wintering waterbirds, birds of prey, passage warblers and breeding seabirds. Annex 1 qualifying species (used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season) are: Bewick's swan *Cygnus columbianus bewickii*, bittern *Botaurus stellaris*, hen harrier *Circus cyaneus*, golden plover *Pluvialis apricaria*, ruff *Philomachus pugnax*, aquatic warbler *Acrocephalus paludicola*, marsh harrier *Circus aeruginosus*, avocet *Recurvirostra avosetta*, Mediterranean gull *Larus melanocephalus*,	50m from Area A of the Works Area at the closest point 350m from Area B of the Works Area at the closest point Area C is located immediately adjacent to the SPA.	4010.29

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area	Designated Site Area (ha)
	sandwich tern *Sterna sandvicensis*, common tern *Sterna hirundo*, little tern *Sterna albifrons* and shoveler *Anas clypeata*.		
Dungeness, Romney Marsh and Rye Bay Ramsar	The Ramsar site is a Wetland of International Importance because: Under Criterion 1-it contains representative, rare, or unique examples of natural or near-natural wetland types: • Annual vegetation of drift lines and the coastal fringes of perennial vegetation of stony banks (Ramsar wetland type E – sand, shingle or pebble shores). • Natural shingle wetlands: saline lagoons (Ramsar wetland type J – coastal brackish/saline lagoons), freshwater pits (Ramsar wetland type K – coastal freshwater lagoons) and basin fens (Ramsar wetland type U – non-forested peatlands). The site qualifies under Criterion 2 because it supports threatened ecological communities. These consist of a complex network of wetland habitats including saltmarsh, natural freshwater pits, fens, ponds, gravel pits, and grazing marsh and ditches. They support rich and diverse assemblages of bryophytes, vascular plants and invertebrates that are rare, threatened, listed as priority species in the UK Biodiversity Action Plan (BAP) or specially protected under the Wildlife and Countryside Act 1981. Important areas for these assemblages include the gravel pits, ditches and shingle wetlands at Dungeness and Rye Harbour, the grazing marsh and ditches of Walland Marsh, Dengemarsh and Pett Level, ponds throughout the site, the Royal Military Canal, and the saltmarshes of the River Rother. • The bryophyte flora includes an assemblage of wetland thread-mosses *Bryum* species. These mosses are colonists of unshaded calcareous sand that must be persistently damp all year but not inundated by standing water. They occur on wet sand beside large freshwater gravel pits and small pools in Dungeness RSPB Reserve. • Foremost amongst the assemblage are the suites of species associated with grazing marsh and saltmarsh (including brackish ditches and wetlands associated with low-lying depressions within shingle areas). Saltmarshes and other brackish wetlands are particularly rich, with at	450m from Area A of the Works Area at the closest point. 700m from Area B of the Works Area at the closest point. Area C is located within the Ramsar site.	6377.63

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area	Designated Site Area (ha)
	least eight nationally scarce species, including the vulnerable sea barley *Hordeum marinum*, Borrer's saltmarsh-grass *Puccinellia fasciculata* and slender hare's-ear *Bupleurum tenuissimum*, and the near-threatened sea-heath *Frankenia laevis*. Grazing marshes support the nationally rare (and critically endangered) sharp-leaved pondweed *Potamogeton acutifolius* and at least six nationally scarce species, including the vulnerable divided sedge *Carex divisa* and rootless duckweed *Wolffia arrhizal*. The remaining species are chiefly associated with gravel pits and their margins, saline lagoons, shingle beaches and fens. • The freshwater wetlands (with the exception of the deep, cold and largely sterile open waters of the main gravel pits) exhibit a number of similar characteristics. Shallow open water and emergent vegetation, largely comprising common reed *Phragmites australis* and bulrush *Typha latifolia*, supports a rich water beetle assemblage. Other noteworthy aspects of the invertebrate assemblage include a suite of reed beetles *Donacia*, snail-killing flies *Sciomyzidae* and soldierflies *Stratiomyidae* that are typical of coastal marshes. Much of this assemblage is found within the ditch systems. The saline and brackish gradients of the saltmarsh, saline lagoons, brackish ditches and damp brackish hollows in the shingle beaches also share many characteristics in terms of the habitats they provide for invertebrates. The site further qualifies under Criterion 2 because it supports vulnerable, endangered or critically endangered species. In addition to the threatened ecological communities, the site is of international importance for nine individual wetland species: • Greater water-parsnip *Sium latifolium* – an endangered UK BAP priority species of wet ditches and tall-herb fens and swamps. The site supports several populations, chiefly in the northern areas of Walland Marsh.		

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area	Designated Site Area (ha)
	• Warne's thread-moss *Bryum warneum* – a vulnerable UK BAP priority species. A colonist on wet sand beside the margins of freshwater gravel pits in Dungeness RSPB Reserve. • Water vole *Arvicola amphibius* – a UK BAP priority species and is also listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The Ramsar site contains the core of an extensive distribution of water voles dependent on the network of ditches that drain the grazing marsh and arable habitats of the Romney Marsh and Rye Bay area. • Aquatic warbler *Acrocephalus paludicola* – a globally vulnerable and declining UK BAP priority species. Between 2004 and 2008 the Ramsar site supported an average of two aquatic warblers during autumn passage, which represents 6.1% of the GB passage population. Aquatic warblers occur on Pett Level, where they are recorded by bird ringers. • Great crested newt *Triturus cristatus* - a UK BAP priority species that is listed in Schedule 5 to the Wildlife and Countryside Act 1981 (as amended) and Annex II to the EC Habitats Directive (92/43/EEC). The particular combination and distribution of aquatic and terrestrial habitats in the site provide exceptional breeding, foraging and hibernation conditions for great crested newts. The site contains three metapopulations; two in the Dungeness area and one at Romney Warren. • Medicinal leech *Hirudo medicinalis* – a rare (Red Data Book category 3) species that is listed in Schedule 5 to the Wildlife and Countryside Act 1981 (as amended). Medicinal leech is found at a wide range of localities between Dungeness and Rye, and the site is a stronghold for the species in Great Britain. The range of shallow, well-vegetated waterbodies, including ponds, ditches and shallow areas in flooded gravel pits, provide ideal conditions for medicinal leeches.		

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area	Designated Site Area (ha)
	• A ground beetle *Omophron limbatum* – an endangered (Red Data Book category 1) species living in burrows in sand at the margins of freshwater, where it is active at dusk and at night. It has been recorded from the margins of waterbodies at Dungeness and Rye Harbour and, except for recent records in Suffolk, is not known from any other site in Great Britain. • Marsh mallow moth *Hydraecia osseola hucherardi* – an endangered (provisional Red Data Book category 1) UK BAP priority species, restricted to two main population centres: one on the River Medway south of Rochester, Kent; the other in and around Walland Marsh. The Walland Marsh population centre comprises three discrete colonies at Moneypenny Farm near Rye, Old Cheyne Court near Brookland, and Woodruff's Farm, Fairfield. Marsh mallow moth is associated with the nationally scarce marsh-mallow Althaea officinalis, which is the larval food plant. • De Folin's lagoon snail *Caecum amoricum* – listed in Schedule 5 to the Wildlife and Countryside Act 1981 (as amended). Until recently, its only known locality in the UK was the Fleet in Dorset. Now the species has been discovered at a further two locations, one of which is the saline lagoons at the seaward end of Lydd Ranges. The site qualifies under Criterion 5 because it regularly supports 20,000 or more waterbirds: In the non-breeding season, the site regularly supports 34,957 individual waterbirds (5 year peak mean 2002/3 – 2006/7). The site qualifies under Criterion 6 because it regularly supports 1% of the individuals in the populations of the following species or subspecies of waterbird in any season: Mute swan *Cygnus olor* and shoveler *Anas clypeata*.		
Dungeness, Romney Marsh and Rye Bay Site of Special Scientific	Dungeness, Romney Marsh and Rye Bay is a nationally important site by reason of a diverse range of biological and geological features, specifically the coastal geomorphology of Dungeness and Rye Harbour and the following nationally important habitats: saltmarsh, sand dunes,	Area A of the Works Area is located adjacent the SSSI.	10172.91

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area	Designated Site Area (ha)
Interest (SSSI)	vegetated shingle, saline lagoons, standing waters, lowland ditch systems, and basin fens. These habitats and others within the site support the following nationally important species interests: populations of four vascular plant species listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended); an assemblage of Schedule 8, nationally rare and nationally scarce vascular plants; populations of the vulnerable Warne's thread-moss *Bryum warneum*; populations of water voles; an assemblage of breeding birds associated with shingle beaches and saltmarsh, lowland damp grasslands, lowland open waters and their margins, and scrub; breeding numbers of 16 species of bird; assemblage of over 20,000 waterfowl in the non-breeding season; wintering numbers of 17 species of bird and three species during passage periods; metapopulations of great crested newts; endemic species and subspecies of invertebrates; populations of two invertebrate species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); populations of ten endangered, vulnerable and rare invertebrate species; assemblages of invertebrates occurring on 'dry' coastal habitats; and assemblages of wetland invertebrates.	Area B of the Works Area is located immediately adjacent to the SSSI. Area C of the Works Area is located within the SSSI.	
Dungeness National Nature Reserve (NNR)	The site is designated for its populations of breeding, wintering and passage birds and great created newts, vascular plant assemblage with Wildlife and Countryside Act 1981 (as amended) Schedule 8 plants, invertebrate assemblage, coastal geomorphology, natural shingle wetlands, saline lagoons, standing waters and basin fens and vegetated shingle.	Area A of the Works Area is located 110m from the NNR. Area B of the Works Area is located 175m from the NNR. Area C of the Works Area is located 140m from the NNR.	1030.921

Non-Statutory Designated Sites

3.1.3 The desk study identified one RSPB reserve within 3km of the Works Area. Further details are provided in **Table 3**.

Table 3: Details of Non-Statutory Designated Sites for Nature Conservation within Search Area

Site Name and Designation	Reason(s) for Designation	Relationship to the Works Area
Dungeness RSPB reserve	This headland on the south coast of Kent is formed largely of a shingle beach in the form of a cuspate foreland. The Dungeness reserve itself is set back from the sea, supporting a large extent of open shingle, fresh water pits, wet grassland and species diverse wildflower meadows.	Area A of the Works Area at its closest point is located 1.6km from the RSPB Reserve. Area B of the Works Area at its closest point is located 600m from the RSPB Reserve. Area C of the Works Area at its closest point is located 225m from the RSPB Reserve.

3.1.4 There are no areas of Ancient Woodland within 3km of the Works Area.

3.2 Habitats

3.2.1 The desk study identified the following Priority Habitats within 3km of the Works Area:

- Coastal shingle habitat located immediately adjacent to Area A and Area B of the Works Area and within Area C of the Works Area;
- Coastal and floodplain grazing marsh at its closest 2.3km north-west of Area B of the Works Area;
- Lowland fens 900m north-west of Area B of the Works Area;
- Priority ponds, located 2km west of Area C of the Works Area and 2.1km northwest of Area A and Area B of the Works Area; and
- Deciduous woodland 470m north-west of Area B of the Works Area.

3.2.2 Acid grassland and heathland habitat mosaics and vegetated shingle are habitats with priorities for nature recovery within the Romney Marshes National Character Area (which encompasses Dungeness) within the Kent and Medway Local Nature Recovery Strategy[22].

3.3 Protected and/or Notable Species

3.3.1 The protected and/or notable species considered as part of the desk study include:

- Bats;
- Mammals (other than bats);
- Birds;
- Amphibians;

[22] Kent County Council (2025) *Kent and Medway Local Nature Recovery Strategy.* Available at: Kent and Medway Local Nature Recovery Strategy 2025 [Accessed 03/03/2026]

- Reptiles;
- Terrestrial invertebrates;
- Plants and fungi; and
- Invasive non-native species.

3.3.2 Results for the above species are confidential and have been provided separately to specific stakeholders (i.e. ONR, local authority, county ecologists and Natural England).

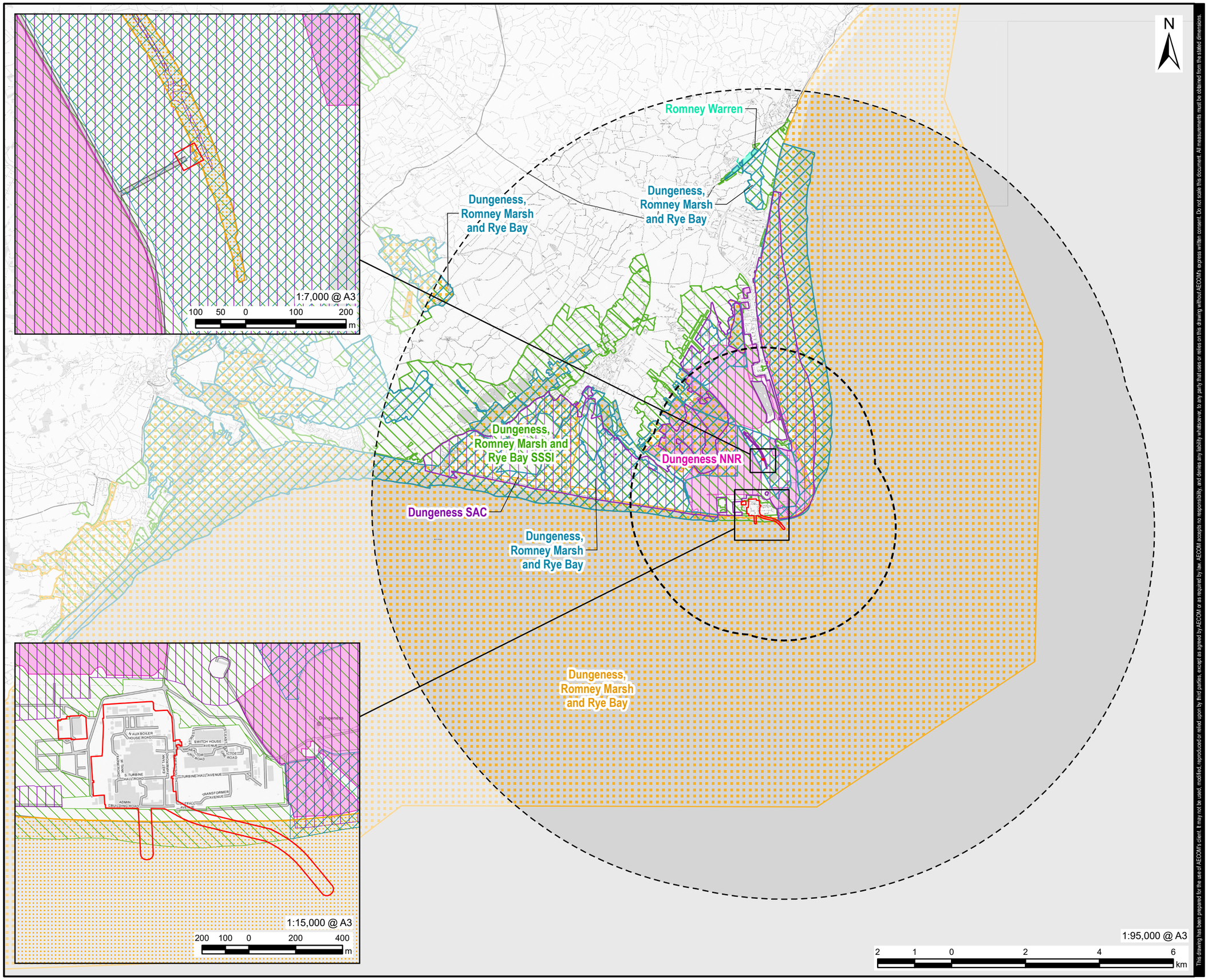
4. Discussion

4.1.1 The Works Area is situated on the Dungeness Peninsula, which comprises a unique site with the largest single shingle structure in the UK. As such, the different Areas of the Works Area are located within or in very close proximity to the internationally designated sites Dungeness SAC, Dungeness Romney Marsh and Rye Bay SPA and Dungeness Romney Marsh and Rye Bay Ramsar site, and the nationally designated sites Dungeness, Romney Marsh and Rye Bay SSSI and Dungeness NNR. The RSPB Dungeness reserve is located at its furthest point 225m from Area C of the Works Area. The Works Area falls within the SSSI impact zone for the Dungeness, Romney Marsh and Rye Bay SSSI.

4.1.2 Area C of the Works Area is located within and Areas A and Area B of the Works Area adjacent to the Priority Habitat: Coastal shingle habitat. Within 3km of the Works Area the following additional Priority Habitats were identified: Coastal and floodplain grazing marsh, Lowland fens Priority ponds Deciduous woodland.

4.1.3 The data search from KMBRC, combined with the species records contained within the EDF land management reports, are confidential and have been provided separately to specific stakeholders (i.e. local authority, county ecologists and Natural England).

Revision: 0 Drawn: AD Checked: EC Approved: NS Date: 2026-01-19



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Dungeness B Nuclear Decommissioning

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LEGEND

- The Works Area
- The Works Area - 3km Buffer
- The Works Area - 10km Buffer

Environmental Designations

- Ramsar
- Special Protection Area
- Special Areas of Conservation
- Sites of Special Scientific Interest
- Local Nature Reserve
- National Nature Reserve

NOT PROTECTIVELY MARKED

NOTES

ISSUE PURPOSE

EIA Scoping Report

PROJECT NUMBER

60739933

FIGURE TITLE

Statutory Sites

FIGURE NUMBER	REV
Figure 18A-1	0

DOCUMENT NUMBER

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Appendix 18B UK Habitat Classification Survey Report

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Tables

Figures

1 Introduction

1.1 Background

1.1.1 AECOM was appointed by EDF Energy Nuclear Generation Limited (NGL) to undertake a modified UK Habitat Classification Survey (UKHab survey) for the decommissioning of Dungeness B nuclear power station in Kent.

1.1.2 The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) (EIADR)[1] require the environmental impact of decommissioning nuclear power stations to be considered. The EIADR applies for the duration of the decommissioning project from the point at which the nuclear reactor is permanently disabled to final site clearance. The decommissioning and dismantling strategy for Dungeness B ensures that defueling is not within the scope of the EIADR, with the Initial Decommissioning Works included as the first stage of decommissioning and dismantling. It is anticipated that the Initial Decommissioning works would commence shortly after fuel free verification.

1.1.3 The Works Area is the land required for decommissioning under the EIADR consent and comprises the Dungeness B Nuclear Site Licence (NSL) and other associated areas as set out below. For the purposes of this report the Works Area is divided into the following areas:

- **Area A** – the main area of the existing Dungeness B, comprising all land and associated infrastructure within the existing double security fence boundary and the adjacent car park;
- **Area B** – the area associated with the B1 Hanger, an existing storage hanger, laydown area and conventional waste storage compound;
- **Area C** – the area associated with the existing back-up cooling water infrastructure at the Long Pits, an existing onshore waterbody
- **Area D** of the Works Area is associated with the existing cooling water infrastructure comprising the intake and outfall culverts located within the English Channel and foreshore and is not considered further within this report.

[1] Office for Nuclear Regulation (2023) Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) Accessed 07/09/23. Available at: https://www.onr.org.uk/eiadr.htm#:~:text=The%20Nuclear%20Reactors%20(Environmental%20Impact,consent%20for%20the%20decommissioning%20project [Accessed 04/03/2026]

1.1.4 For the UKHab survey, the 'Survey Area' comprised Area A, Area B and Area C of the Works Area and a 50m buffer surrounding these.

1.1.5 The UKHab survey was commissioned to identify and categorise the habitats present within the Survey Area, particularly any Annex I habitats listed under the Conservation of Habitats and Species Regulation 2017 (as amended)[2], and habitats of Principal Importance (listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006[3]), that may constrain or influence the design and implementation of the Proposed Works.

1.2 Scope

1.2.1 The Survey Area is shown in **Figure 18B-1**. This report aims to identify and categorise the habitats present within the Survey Area. This information is used to provide recommendations for ecological best practice as required, to minimise any negative impacts on habitats as a result of the Proposed Works and inform any potential for future enhancements.

[2] HMSO (2017) The Conservation of Habitats and Species Regulations 2017 (as amended). Available at: The Conservation of Habitats and Species Regulations 2017 [Accessed 04/03/2026]
[3] Natural Environment and Rural Communities Act (2006). Available at: http://publications.naturalengland.org.uk/publication/4958719460769792 [Accessed 04/03/2026]

2 Methods

2.1 Modified UKHab Survey

2.1.1 A UKHab survey was undertaken in accordance with the standard survey method (UKHab Ltd (2023)4) with modifications for use for purposes of site condition assessment, if required. UKHab survey is a standard method of environmental audit. It involves categorising different habitat types and habitat features within a survey area. The information gained from the survey can be used to determine the likely ecological value of a site and gather a baseline to perform a Biodiversity Net Gain (BNG) assessment using Defra metrics. The modified UKHab includes minor additions needed for a BNG assessment, such as additional details needed for hedgerows, new habitat categories, and lower resolution for some habitat types.

2.1.2 The UKHab survey was undertaken on the 28th, 29th and 30th of June 2023 by two suitably qualified AECOM ecologists who recorded and mapped all habitat types present within the Works Area (refer to **Figure 18B-1**) and buffer zones (Survey Area), along with any associated relevant ecological receptors observed. The Survey Area encompassed all safely accessible areas where access permission had been granted in advance of survey, or this land was visible from public rights of way, or other publicly accessible areas. The UKHab survey will be updated during 2026.

2.1.3 Where relevant ecological receptors were present, target notes were recorded and the position of these shown on the UKHab map (**Figure 18B-1**). Typical and notable plant species were recorded for different habitat types and reflect the conditions at the time of survey. This was not intended to be a detailed inventory of the plant species present in the Survey Area as this is not required for the purposes of UKHab survey.

2.1.4 The survey also included a search for any invasive plant species highlighted as potentially present during the desk study exercise (see **Appendix 18A**) included within Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)[5] and Schedule 2 of The Invasive Alien Species (Enforcement and Permitting) Order 2019[6] (as amended), including Japanese knotweed *Reynoutria japonica* and giant hogweed *Heracleum mantegazzianum*.

2.1.5 Botanical nomenclature used in this report follows Stace (2019)[7].

2.2 Limitations

2.2.1 Man-made linear features such as roads and fence lines were not individually mapped and are included within the habitat of developed land - sealed surface (u1b) with industrial buildings (817), with a description in Target Note (TN) 1. This is not considered to affect results, as sub-categories such as roads simply add more detail to the broad habitat type of developed land – sealed surface.

2.2.2 The survey was undertaken immediately prior to the release of UKHabs 2.0, however the methodology undertaken was in line with this updated guidance.

2.2.3 An ecological survey represents only a 'snapshot' in time of the ecological condition of a site. The ecological character of a site can change markedly throughout the course of a year and from year to year, both in extent and quality of habitats.

2.2.4 Populations of annual plant species may fluctuate markedly between years dependent on the growing conditions present in any given season. However, the survey undertaken in June 2023 recorded all habitat types within the Survey Area to an appropriate level of botanical detail to inform this report.

2.2.5 Where habitat boundaries coincide with physical boundaries recorded on OS maps, the resolution is as determined by the scale of mapping. Elsewhere, habitat mapping is as estimated in the field. Where areas of habitat are given, they are approximate and should be verified by measurement on site where required.

2.3 Quality Assurance

2.3.1 AECOM Ecologists are members, at the appropriate level, of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct when undertaking ecological work.

2.3.2 AECOM is BS EN ISO 9001:2015, BS EN ISO 14001:2015 and OHSAS 18001:2007 Health and Safety accredited.

3 Results

3.1 UKHab Survey

3.1.1 The Survey Area was dominated by perennial vegetation on coastal shingle (s3b5; H1220) as well as developed land – sealed surface (u1b) with industrial buildings (817) characterising the operational areas. Other habitats recorded included gorse scrub (h3e), sea wall (701), nutrient-poor shallow waters with aquatic vegetation on sand (r1c6; H3110), artificial unvegetated – unsealed surface (u1c) and modified grassland (g4). The habitats recorded within the Survey Area are shown on **Figure 18B-1**. Target notes are included in **Annex A**. **Table 1** outlines habitats present.

3.1.2 Area A of the Works Area is located 60m at the closest point from the Dungeness SAC, Area B of the Works Area is located 8m at the closest point from the Dungeness SAC and Area C of the Works Area is located within the Dungeness SAC. Perennial vegetation on coastal shingle (s3b5; H1220) is an Annex 1 habitat for which the Dungeness SAC is designated. Further details regarding the designated sites of relevance to the Survey Area are contained within **Appendix 18-A**.

Table 1: Habitats Recorded within the Survey Area

Habitat	Brief description	Area of Habitat Within Area A of the Works Area (ha)	Area of Habitat within Area B of the Works Area (ha)	Area of Habitat within Area C of the Works Area (ha)	Area of Habitat within Survey Area Beyond Works Area (ha)
Perennial vegetation on coastal shingle (s3b5; H1220)	The wider Survey Area outside of Area A, Area B and Area C of the Works Area was dominated by perennial vegetation on coastal shingle with it surrounding Area A of the Works Area to the north, east and west and Area A of the Works Area on all sides. This habitat is also present within Area C of the Works Area.	-	0.15	0.08	21.75
Developed land – sealed surface (u1b) with industrial buildings (817)	Area A and Area B of the Works Area was dominated by developed land – sealed surface comprising hardstanding roads, parking areas, fence lines and industrial buildings. This habitat was present within Area A of Works Area and Area B of the Works Area, as well as Area C of the Works Area.	13.14	0.99	0.04	3.22

Habitat	Brief description	Area of Habitat Within Area A of the Works Area (ha)	Area of Habitat within Area B of the Works Area (ha)	Area of Habitat within Area C of the Works Area (ha)	Area of Habitat within Survey Area Beyond Works Area (ha)
Gorse scrub (h3e)	There were patches of gorse shrub over the perennial vegetation on coastal shingle creating a mosaic of the two habitats.	-	-	-	0.9
Other dry acid grassland (g1a6)	An area of this habitat has formed on a geotextile membrane in an area with occasional use for laydown and as a car park, located west of Area A of the Works Area.	-	-	-	0.43
Sea wall (701)	A man-made sea wall adjacent to the south of Area A of the Works Area creates a barrier between the sea and the Works Area.	-	-	-	<0.01
Nutrient-poor shallow waters with aquatic vegetation on sand (r1c6; H3110)	The cooling water intake building within Area C of the Works Area is positioned to the south-west of a man-made back up reactor flooding reservoir of nutrient-poor shallow waters with aquatic vegetation on sand.	-	-	0.055	0.44
Artificial unvegetated – unsealed surface (u1c)	Surrounding Area A of the Works Area was an area of pebble shingle maintained clear of vegetation. This is called the ‘sterile zone’ and is part of the sites security infrastructure.	1.01	-	-	-
Modified grassland (g4)	There was a single patch of mown modified grassland within Area A of the Works Area.	0.01	-	-	-
Beach (t2h)	The Dungeness beach (including the man made shingle berm that is replenished annually) falls within the Survey Area, located to the south of Area A of the Works Area.	-	-	-	8.40

3.1.3 The habitats present are discussed in more detail below.

3.2 Habitat Descriptions

Perennial Vegetation on Coastal Shingle (s3b5; H1220)

3.2.1 The dominant habitat within the wider Survey Area outside of the Works Areas of Area A and Area B and within and surrounding Area C of the Works Area was perennial vegetation on coastal shingle. There was an even amount of low lying and medium size vegetation scattered between bare ground associated with the coastal shingle, creating a mosaic of sward heights. Within Area A of the Works Area and Area B of the Works Area there were also small areas of perennial vegetation on coastal shingle, however although of similar species composition these areas tended to have a shorter average sward height.

3.2.2 Species present included frequent sea kale *Crambe maritima*, sweet vernal grass *Anthoxanthum odoratum*, foxtail *Alopecurus* spp., viper's bugloss *Echium vulgare*, prickly lettuce *Lactuca serriola*, ribwort plantain *Plantago lanceolata* with occasional foxglove *Digitalis purpureum*, dandelion *Taraxacum officinale* agg., wood sage *Teucrium scorodonia*, broom *Cytisus scoparius* and rare occurrences of bramble *Rubus fruticosus* agg., yellow horned poppy *Glaucium flavum*, bittersweet *Solanum dulcamara*, white stonecrop *Sedum album* and traveller's joy *Clematis vitalba*. (**Plate 1** and **Plate 2**). Red hemp-nettle *Galeopsis angustifolia* is also present within this habitat.

Plate 1: Mosaic within perennial vegetation on coastal shingle Taken from south-west of Area A of the Works Area, looking north

Plate 2: Larger sward height of perennial vegetation on coastal shingle further away from Area A of the Works Area

Developed land – Sealed Surface (u1b) with Industrial Buildings (817)

3.2.3 Area A of the Works Area and Area B of the Works Area comprised almost completely hardstanding with industrial buildings (**Plate 3**), although in some locations a narrow strip of perennial vegetation was present alongside access roads (**Plate 4**; TN1). In addition, Area A of the Works Area had many roads and access ways with off-shoot industrial buildings. Area C of the Works Area includes the building associated with the back-up cooling water infrastructure.

Plate 3: Hard standing and industrial buildings within Area A of the Works Area

Plate 4. EDF Entrance to Area A of the Works Area with roads and hardstanding with industrial buildings, with narrow strip of perennial vegetation adjacent to the road

Gorse scrub (h3e)

3.2.4 There were patches of both dense and sparse gorse scrub *Ulex europaeus* infrequently mixed within the perennial vegetation on coastal shingle (**Plate 5**). The further from the Works Area into the Survey Area, the more frequent the gorse scrub. A large stretch of gorse scrub was present along the northern fence of Area A of the Works Area. Species present included dominant gorse, with occasional broom and viper's bugloss with rare occurrences of bramble.

Plate 5: Patch of gorse scrub to the west of Area A of the Works Area

Other lowland dry acid grassland (g1a6)

3.2.5 Within the Survey Area west of Area A of the Works Area an area of Other lowland dry acid grassland habitat has colonised on top of a geotextile membrane and imported substate within an area with current occasional use as laydown and a car park (see **Plate 6**). There is some variation in the species composition and quality, with indicator species of the other lowland dry acid grassland habitat present included bird's-foot trefoil *Lotus corniculatus*, biting stone crop *Sedum acre*, buck's-horn plantain *Plantago cornopus* and lichens. Also present were sweet vernal grass, false oat grass *Arrhenatherum elatius*, Yorkshire fog *Holcus lanatus*, red fescue *Festuca rubra*, annual meadow grass *Poa annua*, mossy stonecrop *Crassula tillaea*, English stonecrop *Sedum anglicanum*, ribwort plantain *Plantago lanceolata*, red valerian *Centranthus ruber*, lesser hawkbit *Leontodon saxatilis*, bristly ox-tongue *Helminthotheca echioides*, spear thistle *Cirsium vulgar*e, slender thistle *Carduus tenuiflorus*, yellow horned poppy, viper's-bugloss *Echium vulgare*, lesser trefoil *Trifolium dubium*, hop trefoil *Trifolium campestre*, common vetch *Vicia sativa*, common sorrel *Rumex acetosa*, curled dock *Rumex crispus*, sea kale, black mustard *Brassica nigra*, wild carrot *Daucus carota*, ragwort *Senecio jacobaea* and bramble.

Plate 6: Other lowland dry acid grassland to the west of Area A of the Works Area

Sea wall (701)

3.2.6 There is a man-made sea wall comprising boulders to approximately 2.5m height running perpendicularly adjacent to the southern boundary of Area A the Works Area which interchanges between a concrete wall and a fence (**Plate 7**). The boulder sea wall blocks the view of the sea from within Area A of the Works Area. There were rare occurrences of sea kale and yellow horned poppy immediately adjacent to the sea wall.

Plate 7: Sea wall (comprising of boulders) south of Area A of the Works Area

Nutrient-poor shallow waters with aquatic vegetation on sand (r1c6; H3110)

3.2.7 Located at Area C of the Works Area, the nutrient-poor shallow waters with aquatic vegetation on sand comprised a man-made back up reactor-flooding reservoir with both surface and submerged vegetation around the edge as well as in the centre (**Plate 8**). Species present included frequent common reed *Phragmites australis*, goat willow *Salix caprea* and water mint *Mentha aquatica* with occasional hard rush *Juncus inflexus* and rare occurrences of yellow flag iris *Iris pseudacorus* and purple loosestrife *Lythrum salicaria*.

Plate 8: Nutrient-poor shallow waters with aquatic vegetation on sand adjacent to Area C of the Works Area

Artificial unvegetated – unsealed surface (u1c)

3.2.8 Surrounding Area A of the Works Area along the NSL boundary was a ring of sterile pebble shingle with no vegetation between an outer and inner fence (**Plate 9**). This has been created as part of sites' security infrastructure. The distance of the fence from Area A of the Works Area varies from forming the Area A of the Works Area boundary to approximately 150m from Area A of the Works Area.

Plate 9: Ring of sterile artificial unvegetated – unsealed surface surrounding the NSL, beyond Area A of the Works Area

Modified grassland (g4)

3.2.9 There was one small mown area of modified grassland within Area A of the Works Area (**Plate 10**). The modified grassland was dominated by perennial ryegrass *Lolium perenne*.

Plate 10: Small section of modified grassland within Area A of the Works Area

Beach (t2h)

3.2.10 Beyond the shingle bank to the south of Area A of the Works Area and within the Survey Area, there is a beach, comprising pebble and intertidal sediment. This also includes the man-made shingle berm that is artificially replenished on an annual basis to maintain it as a flood defence for Dungeness A and Dungeness B power stations.

4 Discussion

4.1.1 Based on the UKHab survey completed in June 2023, Area A, Area B and Area C of the Works Area comprised mainly developed land – sealed surface (comprising hardstanding roads, car parking areas and pathways) with industrial buildings and perennial vegetation on coastal shingle. The Survey Area mainly comprised perennial vegetation on coastal shingle. Other habitats recorded included gorse scrub, a sea wall, nutrient-poor shallow waters with aquatic vegetation on sand, artificial unvegetated – unsealed surface, and modified grassland.

4.1.2 No invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) or Schedule 2 of The Invasive Alien Species (Enforcement and Permitting) Order (2019) (as amended) were recorded within the Survey Area.

4.1.3 Two habitats within the Survey Area represent Annex I habitats listed under the Conservation of Habitats and Species Regulation 2017 (as amended):

- The UKHab classification 'perennial vegetation on coastal shingle' (s3b5) is synonymous with the Annex I habitat 1220 – perennial vegetation of stony banks. This habitat type is a primary reason for the Dungeness SAC 's designation. Area A, Area B and Area C of the Works Area are bordered, and in places comprise, this habitat type; and
- The UKHab classification 'nutrient-poor shallow waters with aquatic vegetation on sand' (r1c6) is synonymous with the Annex I habitat 3110 – oligotrophic waters containing very few minerals of sandy plains *Littorelletalia uniflorae*.

4.1.4 Two habitats within the Survey Area represent, or have the potential to represent, examples of Habitats of Principal Importance listed under Section 41 of the NERC Act (2006) and/ or Local Biodiversity Action Plan (BAP) habitats as follows:

- Perennial vegetation on coastal shingle within the survey area represent a NERC S41 Habitat of Principal Importance and Kent BAP habitat; and
- Nutrient-poor shallow waters with aquatic vegetation on sand within the survey area represent a NERC S41 Habitat of Principal Importance habitat.

4.1.5 Due to the habitats present, detailed botanical surveys (National Vegetation Classification surveys) are recommended to be undertaken of the perennial vegetation on coastal shingle (s3b5; H1220) at an appropriate time of year (May to June) in addition to targeted walkover surveys for lichens and bryophytes. In addition, the UKHab survey will be updated in 2026.

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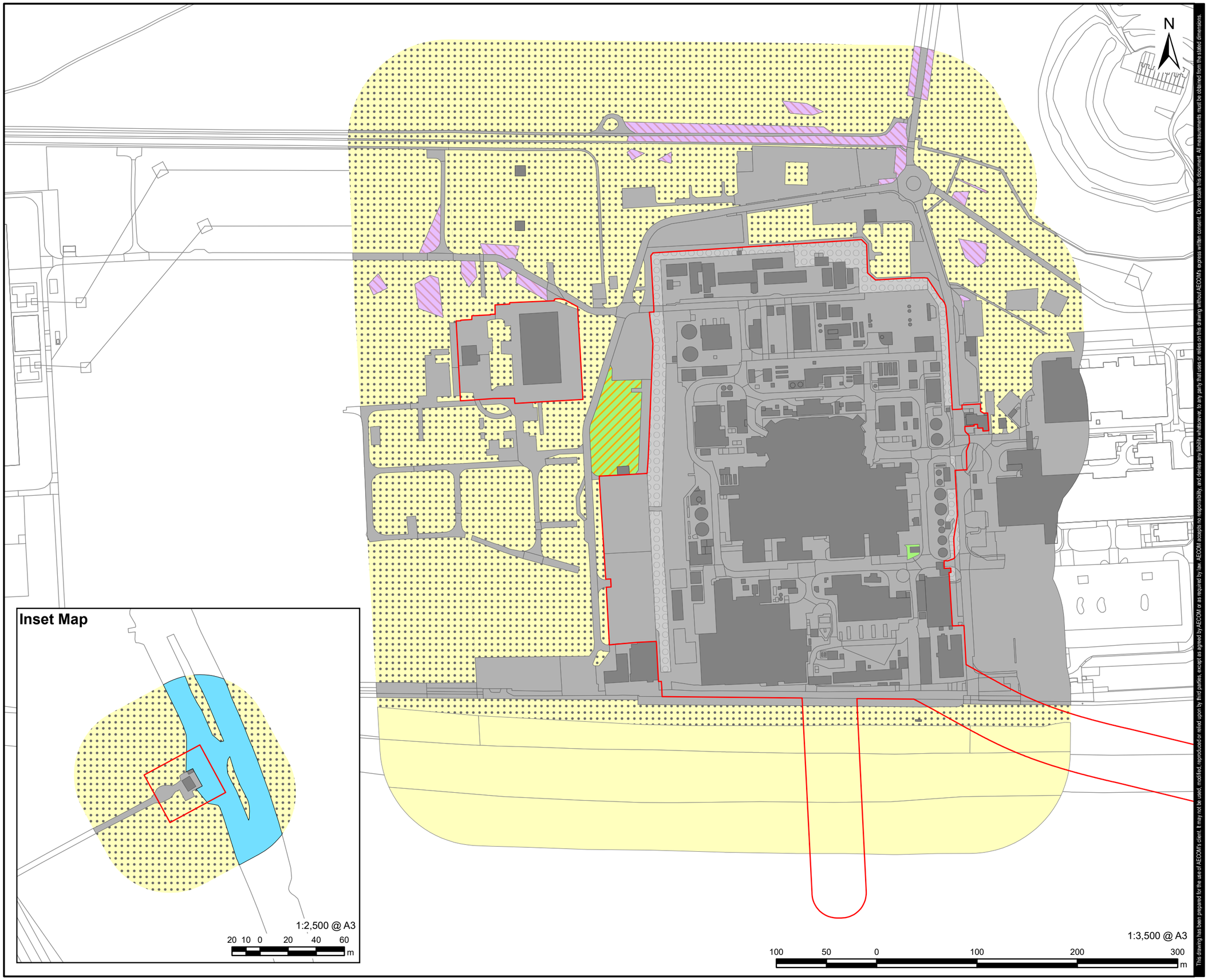

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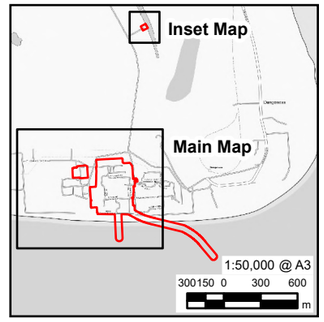
LEGEND

- The Works Area
- g4 - Modified grassland
- t2h - Beach
- u1c - Artificial unvegetated, unsealed surface
- h3e - Gorse scrub
- g1a6 - Other lowland dry acid grassland
- s3b5 - Annex I H1220 - Perennial veg. on coastal shingle
- u1b5 - Buildings
- u1b6 - Other developed land
- r1c6 - Annex I H3110 - Nutrient-poor shallow waters with aquatic vegetation on sand



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NOTES

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UK Habitats

FIGURE NUMBER	REV
Figure 18B-1	0

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Appendix 18C Tern and Gull Vantage Survey Report

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Tables

Figures

1. Introduction

1.1 Background

1.1.1 AECOM was appointed by EDF Energy Nuclear Generation Limited (NGL) to undertake tern and gull foraging surveys for the proposed decommissioning of Dungeness B in Kent.

1.1.2 The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) (EIADR)[1] require the environmental impact of decommissioning nuclear power stations to be considered. The EIADR applies for the duration of the decommissioning project from the point at which the nuclear reactor is permanently disabled to final site clearance.

1.1.3 This tern and gull survey report has been prepared to provide baseline information on the foraging tern and gull populations present in the waters of the Dungeness, Romney Marsh and Rye Bat Special Protection Area (SPA) in the vicinity of the Dungeness B in support of the terrestrial ecology assessment required under the EcIA to be submitted in a future application to the ONR for EIADR consent for Dungeness B decommissioning, with a particular focus on the existing cooling water outfall into the English Channel.

1.1.4 The Indicative Dismantling Works Area (the 'Works Area') is the land required for decommissioning under the EIADR consent and comprises the Dungeness B Nuclear Site Licence (NSL). For the purposes of this report the Works Area is divided into the following areas:

- **Area A** – the main area of the existing Dungeness B, comprising all land and associated infrastructure within the existing double security fence boundary and the adjacent car park;
- **Area B** – the area associated with the B1 Hanger, an existing storage hanger, laydown area and conventional waste storage compound;
- **Area C** – the area associated with the existing back-up cooling water infrastructure at the Long Pits, an existing onshore waterbody; and
- **Area D** of the Works Area is associated with the existing cooling water infrastructure comprising the intake and outfall culverts located within the English Channel and foreshore. With the exception of the intake and outfall Area D of the Works Area is located below ground,

1.1.5 For the tern and gull survey, the surveys were completed from two View Points as follows:

- View Point 1 located to the south of Area A or the Works Area, at the eastern end and focussing on where the existing cooling water infrastructure outfall culvert is located; and

[1] Office for Nuclear Regulation (2023) Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) Accessed 07/09/23. Available at: https://www.onr.org.uk/eiadr.htm#:~:text=The%20Nuclear%20Reactors%20(Environmental%20Impact,consent%20for%20the%20decommissioning%20project

- View Point 2 located 500m to the west of View Point 1, directly south of the western end of Area B of the Works Area.

1.1.6 The location of the Works Area (and sub Areas) and View Points are shown on **Figure 18C-1**.

1.2 Scope

1.2.1 The marine environment (the English Channel) adjacent to Dungeness B form part of the Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA) which is designated in part for the Annex 1 qualifying species (used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season): Mediterranean gull *Larus melanocephalus*, Sandwich tern *Sterna sandvicensis*, common tern *Sterna hirundo* and little tern *Sterna albifrons.* The offshore area of the SPA is included within the designated site boundary, as the waters are important foraging areas for the qualifying tern species.

1.2.2 In order to determine the relative importance of the offshore area in the vicinity of the Works Area for foraging tern and gull species, surveys were commissioned to provide detail on foraging activity. In particular, focus was given to the existing cooling water infrastructure outfall culvert, that has previously had large groups of tern species foraging in the warmer water, generated at the outfall when Dungeness B was operational. The requirement for surveys was determined in consultation with Natural England via the Discretionary Advice Service accessed in 2023.

2. Relevant Legislation

2.1 Legislation

2.1.1 Of the bird species recorded within the UK (including those that are resident, over-wintering and migratory) 193 species or sub-species are protected at a European level under the European Commission (EC) Directive of the Conservation of Wild Birds 2009 (2009/147/EC)[2] which applies to those bird species or sub-species which are:

- In danger of extinction;
- Are rare, or have restricted local distribution;
- Are vulnerable to specific changes in their habitat; or
- Require particular attention for reasons of the specific nature of habitat.

2.1.2 This Directive is reflected in English law by the Conservation of Habitats and Species Regulations 2017 (as amended)[3]. Although the UK is no longer a member state of the European Union, the 2019 amendments to the Conservation of Habitats and Species Regulations 2017[4] make it clear that provisions regarding the protection and designation of Special Protection Areas (SPA) are maintained. Species listed on Annex 1 are those for which the UK Government takes special conservation measures including the designation of land as SPA sites to ensure the survival and reproduction of these species throughout their distributions. These sites are automatically included within the National Site Network; a network of core breeding and resting sites that are protected for rare and threatened species. Common tern, little tern, Sandwich tern and Mediterranean gull are all listed on Annex 1.

2.1.3 The legislative provisions for the protection of wild birds in the UK are contained primarily in Sections 1-7 of the Wildlife and Countryside Act 1981 (as amended)[5]. The Act prohibits the intentional killing, injuring or taking of wild birds and, during the breeding season, the taking, damaging or destroying of eggs or nests (whether the nest is in use or being built). In addition to this general protection, certain rare, endangered, declining or vulnerable species (including little tern) are afforded special protection under Schedule 1 of the Act. For these species there are additional penalties for disturbing the bird while it is at the nest or building a nest or disturbing the dependent young. Little tern is protected under Schedule 1.

[2] European Commission (2009). Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version). EC, Brussels.
[3] HMSO. (2018). Conservation of Habitats and Species Regulations 2017 (as amended). HMSO, London. http://www.legislation.gov.uk/uksi/2017/1012/contents/made
[4] HMSO (2019) The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. HMSO, London
[5] HMSO. (1981). Wildlife & Countryside Act 1981 (as amended). https://www.legislation.gov.uk/ukpga/1981/69

3. Methods

3.1 Desk Study

3.1.1 A desk study was completed which included the following data sources of relevance to the tern and gull surveys:

- Designated site registers of the Dungeness, Rye Bay and Romney Marsh SPA[6], Dungeness, Rye Bay and Romney Marsh Ramsar site[7] and Dungeness, Romney Marsh and Rye Bay SSSI[8];
- Conservation advice in relation to the Dungeness, Rye Bay and Romney Marsh SPA[9];
- Kent and Medway Biological Records Centre (KMBRC) data search in 2025[10];
- EDF Dungeness Land Management Annual Reviews available between 2015 and 2023[11];
- Summary British Trust for Ornithology (BTO) WeBS data[12] were obtained for the five-year period of 2019/20 to 2022/24 (the most recent data available), for the Dungeness and Rye Bay site (22302), including the five year average data; and
- Personal correspondence with Romney Marsh Countryside Partnership Rangers and Dungeness Bird Observatory.

[6] Natural England (2016) Register of European Sites: Register entry UK9012091 under Regulation 13 of The Conservation of Habitats and Species Regulations 2010, Dungeness, Rye Bay and Romney Marsh SPA. (online). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509225/dungeness-romney-rye-spa-documents.pdf (accessed 03/12/2025)

[7] Natural England (2016) Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Dungeness, Rye Bay and Romney Marsh Ramsar site. (online). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509228/dungeness-romney-rye-ramsar-documents.pdf (accessed 03/12/2025)

[8] Natural England (2006) Dungeness, Romney Marsh and Rye Bay SSSI Citation. (online) Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/2000533.pdf (accessed 03/12/2025)

[9] Natural England (2025) Conservation Advice for Protected Sites: Dungeness, Romney Marsh and Rye Bay SPA. (online). Available at: https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9012091&SiteName=Dungeness&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=13&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA (accessed 28/11/2025)

[10] Kent and Medway Biological Records Centre (2025) Report regarding Dungeness B, 04/06/2025

[11],EDF (2015) Dungeness Annual Land Management Review 2015, (2016) Dungeness Annual Land Management Review 2016, (2017) Dungeness Annual Land Management Review 2017, (2018) Dungeness Annual Land Management Review 2018, (2019) Dungeness Annual Land Management Review 2019, (2020) Dungeness Annual Land Management Review 2020, (2021) Dungeness Annual Land Management Review 2021, (2022) Dungeness Annual Land Management Review 2020 and (2023) Dungeness Annual Land Management Review 2021.

[12] Austin, G.E., Calbrade, N.A., Birties, G.A., Peck, K., Shaw, J.M., Wotton, S.R., Balmer, D.E. and Frost, T.M. (2023) Waterbirds in the UK 2021/22. The Wetland Bird Survey and Goose and Swan Monitoring Programme. BTO/RSPB/JNCC/Nature Scot, Thetford. Available at: http//ww.bto.org/volunteer-surveys/webs/publications/webs-annual-report

3.2 Field Survey

3.2.1 To determine presence/absence and usage of the Survey Area by target species, surveys were conducted from two static locations (View Points) at high tide. The static locations were located at TR0827516599 (View Point 1 located to the south of Area A of the Works Area, at the eastern end) and TR0775516603 (View Point 2 located 500m west of View Point 1) as shown in **Figure 18C-1**. The Survey Area encompassed the beach and sea within 500m of each View Point and is shown on **Figure 18C-1**. Surveys were completed during high tide period in the summer months when breeding tern feed within the water column of the offshore waters that are designated in part for supporting foraging terns. The Survey Area was considered a sufficient size to identify the level of foraging use by tern and gull species at the outfall location and area around the Works Area within which foraging tern and gull species could be subject to visual and noise disturbance from the Proposed Works, inclusive of those in the marine environment.

3.2.2 Surveys from each View Point were undertaken monthly between May and August 2025 and each survey lasted six hours covering the high tide window, starting at three hours prior to high tide, and ending at three hours after high tide. Counts were focused on scans of the foreshore and the outfall location, made at half hour intervals (i.e. on 13 occasions during the survey period, six before high tide, one at high tide and six after high tide), and all birds observed were recorded with specific focus on tern and gull species (the target species). Observations on the species, number, and behaviour of the birds were made. Registrations of birds were recorded using standard British Trust for Ornithology (BTO) two letter species codes[13].

3.2.3 The surveys were conducted by a team of two surveyors, led by an experienced ornithologist with a second surveyor for health and safety.

3.2.4 Surveys were conducted on the following dates:

- 27 and 28 May 2025;
- 25 and 26 June 2025;
- 28 and 29 July 2025; and
- 27 and 28 August 2025.

3.2.5 Each survey was undertaken, where possible, during appropriate weather conditions for survey and avoided, days with adverse weather conditions such as heavy rain or strong winds as birds may be harder to detect in such conditions. The View Points and access routes followed existing paths, roads and open access areas to avoid disturbance of the vegetated coastal shingle which is an interest feature of multiple Dungeness legally protected areas, whilst still provided suitable visibility of the Survey Area.

[13] BTO Species Codes (undated). Available at: https://www.bto.org/sites/default/files/u16/downloads/forms_instructions/bto_bird_species_codes.pdf

Table 1: Survey Locations, Timings and Conditions

Date of survey	Location	Survey start time	High tide time	Survey end time	Weather conditions
27 May 2025	View Point 1	08:38	11:38	14:38	Start: dry, strong breeze (Beaufort 6), overcast (8 okta), 15 °C End: rain, gale (Beaufort 8), overcast (8 okta), 14 °C Some sun breaking through early on. Rain and windspeed increasing over course of survey.
28 May 2025	View Point 2	09:25	12:25	15:25	Start: dry, near gale (Beaufort 7), scattered clouds (4 okta), 17 °C End: dry, near gale (Beaufort 7), scattered clouds (5 okta), 17 °C Weather consistent over course of survey.
25 June 2025	View Point 1	08:31	11:31	14:31	Start: dry, light breeze (Beaufort 2), overcast (8 okta), 17 °C. Moderate sea fog. End: dry, light breeze (Beaufort 2), scattered clouds (4 okta), 19 °C. Sea fog increased from moderate to heavy at high tide, before lightening and clearing.
26 June 2025	View Point 2	09:21	12:21	15:21	Start: dry, fresh breeze (Beaufort 5), overcast (8 okta), 17 °C. End: dry, strong breeze (Beaufort 6), few clouds (2 okta), 20 °C. Cloud cover decreasing towards end of survey.
28 July 2025	View Point 1	11:13	14:31	17:13	Start: dry, light breeze (Beaufort 2), few clouds (1 okta), 21 °C. End: dry, fresh breeze (Beaufort 5), broken clouds (5 okta), 19 °C. Windspeed and cloud cover increasing over course of survey.
29 July 2025	View Point 2	11:50	14:50	17:50	Start: dry, gentle breeze (Beaufort 3), few clouds (2 okta), 18 °C. End: dry, gentle breeze, (Beaufort 3), broken clouds (6 okta), 19 °C. Cloud cover increasing after high tide.
27 August 2025	View Point 1	11:19	14:19	17:19	Start: dry, moderate breeze (Beaufort 4), few clouds (2 okta), 20 °C. End: dry, moderate breeze (Beaufort 4), few clouds (2 okta), 20 °C. Wind speed and cloud cover increasing to strong breeze (Beaufort 6) and broken clouds (7 okta) at high tide, before decreasing.

Date of survey	Location	Survey start time	High tide time	Survey end time	Weather conditions
28 August 2025	View Point 2	11:46	14:46	17:46	Start: dry, moderate breeze (Beaufort 4), few clouds (1 okta), 19 °C. End: dry, moderate breeze (Beaufort 4), broken clouds (6 okta), 19 °C. Rain on horizon. Cloud cover increasing after high tide.

3.3 Limitations

3.3.1 Strong winds were encountered during the surveys completed on the 27 and 28 May 2025 which may have reduced the overall activity of birds on these dates. Sea fog on the 25 June 2025 reduced visibility for the post high tide part of the survey. Overall given the remaining survey visits were conducted during favourable weather conditions, with birds active and able to be recorded during these visits this is not considered to pose a significant constraint to the survey results.

3.3.2 It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move or new species may be recorded in subsequent years. However, the survey data is considered to be sufficient to demonstrate the typical level of regular foraging by tern and gull species at the outfall location following power generation at Dungeness B ceasing.

3.4 Quality Assurance

3.4.1 AECOM Ecologists are members, at the appropriate level, of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct when undertaking ecological work.

3.4.2 AECOM is BS EN ISO 9001:2015, BS EN ISO 14001:2015 and ISO 45001:2018 accredited.

4. Results

4.1 Desk Study

KMBRC Records

4.1.1 The desk study returned records of the following tern species within the past 10 years within 3km of the Works Area:

- Arctic tern *Sterna paradisaea* in 2023;
- Black tern *Chlidonias niger* in 2023;
- Caspian tern *Sterna caspia* in 2023;
- Common tern in 2023;
- Gull-billed tern *Gelochelidon nilotica* in 2020;
- Little tern in 2023;
- Roseate tern *Sterna dougallii* in 2023;
- Sandwich tern in 2023;
- Whiskered tern *Chlidonias hybridus* in 2020; and
- White winged black tern *Chilodonias leucopterus* in 2023.

4.1.2 The desk study returned records of the following gull species within the past 10 years within 3km of the Works Area:

- Black-headed gull *Larus ridibundus* in 2023;
- Common gull *Larus canus* in 2023;
- Glaucous gull *Larus hyperboreus* in 2023;
- Great black-backed gull *Larus marinus* in 2023
- Herring gull *Larus argentatus* in 2023;
- Iceland gull *Larus glaucoides* in 2023;
- Kumlein's gull *Larus glaucoides kumlieni* in 2023;
- Laughing gull *Leucophaeus atricilla* in 2017;
- Lesser black-backed gull *Larus fuscus* in 2023;
- Little gull *Larus minutus* in 2023; and
- Mediterranean gull in 2023.

EDF Land Management Annual Reviews

4.1.3 The Land Management Annual Reviews detail that a tern raft installed in May 2021 at the Long Pits near Area C of the Works Area to date remains unused. They also report that tern numbers were down in 2022 with no breeding recorded within established colonies on the neighbouring RSPB Dungeness nature reserve and remained low in 2023.

4.1.4 There are anecdotal reports that tern numbers foraging at the outfall culvert decreased when Dungeness B ceased generation, correlating with decreased volumes of cooling water being expelled from the outfall culvert.

Target Species WeBS Data

4.1.5 Five year average count WeBS data was obtained for Dungeness and Rye Bay, for which the Dungeness Beach is one of the sectors. A summary of the annual average from 2019/20 to 2023/24 and five year average for the Dungeness and Rye Bay site overall for the target species is contained in **Table 2**.

Table 2: Dungeness and Rye Bay five year total counts (summed individuals of all species)

Species	2019/20	2020/21	2021/22	2022/23	2023/24	Moving five year average	2019/20 to 2023/24 five year average
Sabine's gull	0	0+	0+	1	0	0	0
Black-headed gull	580+	1307+	250+	608+	1679+	885	885
Little gull	2	1+	0	2+	3+	2	2
Mediterranean gull	1000	3+	7+	71	365	479	479
Common gull	21+	60+	100+	65+	1240+	297	297
Great black-backed gull	150+	42+	37+	33+	288+	110	110
Iceland gull	0	0	1	0	0+	0	0
Herring gull	3050	260+	2200+	864	999+	1778	1778
Caspian gull	6	0	1	1	0+	4	4
Yellow-legged gull	4	0	5	4	0+	5	5
Lesser black-backed gull	35+	14+	9+	30+	46+	27	27
Sandwich tern	200	0	1+	200+	146+	120	120
Little tern	1	0	0	0	22	5	5
Common tern	10+	0	0	30+	228+	89	89
Arctic tern	0	0+	0+	2	1	1	1
Black tern	0	0+	0	0	5	1	1

Dungeness, Romney Marsh, and Rye Bay SPA, Ramsar and SSSI

4.1.6 The Dungeness B is located adjacent to the Dungeness, Romney Marsh, and Rye Bay SPA[14] which is designated in part for its tern species interest

[14] Natural England (2019) *Dungeness, Romney Marsh, and Rye Bay SPA*. Available at: Dungeness, Romney Marsh, and Rye Bay SPA (Accessed December 2025)

and for Mediterranean gull, and Dungeness, Romney Marsh, and Rye Bay Ramsar site[15], which is in part designated for its waterbird assemblage.

4.1.7 Dungeness B is also surrounded by the Dungeness, Romney Marsh, and Rye Bay SSSI, forming part of the shingle beach which is also in part designated for its tern interest[16].

4.1.8 The SPA qualifies under Article 4.1 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the Great Britain populations of the following relevant species listed in Annex I in any season:

Table 3: SPA Qualifying Species

Species	Mean breeding pairs	% of GB population	Qualification
Common tern	188 pairs - breeding (5 year mean 2011-2015)	1.9 % of GB population	Annex 1
Sandwich tern	420 pairs - breeding (5 year mean 2011-2015)	3.8 % of GB population	Annex 1
Little tern	35 pairs – breeding (5 year mean 1992-1996)	1.5% of GB population	Annex 1
Mediterranean gull	56 pairs – breeding (2004- 2008)	52.2% of GB population	Annex 1

4.1.9 The Ramsar site qualifies under Criterion 1 because it contains representative, rare, or unique examples of natural or near-natural wetland types and qualifies under Criterion 2 because it supports several vulnerable, endangered or critically endangered species although none are the target species relevant for this report.

4.1.10 The SSSI is regularly used by an assemblage of at least 40 breeding bird species typical of shingle beaches and saltmarshes, lowland damp grasslands, lowland open waters and their margins, and scrub. This assemblage regularly includes nationally important breeding numbers (exceeding 1% of the Great Britain breeding populations) of the following tern and gull species: black-headed gull, Sandwich tern, common tern and little tern. Whilst many breeding birds use habitats throughout the SSSI, there are four areas that support particular concentrations associated with different combinations of habitats: Dungeness (particularly the RSPB Reserve); Rye Harbour Local Nature Reserve (LNR); Pett Level (particularly the Pannel Valley); and Cheyne Court. In addition to the assemblage, the SSSI supports nationally important breeding numbers of Mediterranean gull, primarily at Rye Harbour LNR.

4.2 Field Survey

4.2.1 In total, nine target bird species were observed during the surveys, including common tern, little tern, Sandwich tern, herring gull, black-headed gull, great

[15] Ramsar Site Information Service (2025) *Dungeness, Romney Marsh and Rye Bay Ramsar Information Sheet*. Available at: Dungeness, Romney Marsh, and Rye Bay RIS (Accessed December 2025)
[16] Natural England (2006) *Dungeness, Romney Marsh, and Rye Bay SSSI.* Available at: SSSI Citation (Accessed December 2025)

black-backed gull, Mediterranean gull, lesser black-backed gull and common gull. **Table 4** details target bird species (terns and gulls) observed during the surveys, together with their peak counts. The full survey findings of target bird species are shown in **Annex A.**

4.2.2 **Table 5** details the peak counts, number of counts present and foraging activity recorded by target species.

Table 4: Peak Counts of Target Species by Visit and View Point

Visit	View Point	Peak Counts and Number of Counts Present
1 - May 2025	1	Herring gull: 18 (9/13). Black-headed gull:2 (1/13)
1 - May 2025	2	Herring gull: 20 (13/13), Black-headed gull: 1 (1/13), Great black-backed gull: 3 (2/13)
2 - June 2025	1	Herring gull: 12 (11/13), Black-headed gull: 2 (6/13), Great black-backed gull: 1 (2/13)
2 - June 2025	2	Herring gull: 50 (13/13), Black-headed gull: 21 (7/13), Mediterranean gull: 4 (7/13), Lesser black-backed gull: 2 (7/13)
3 - July 2025	1	Herring gull: 77 (13/13), Great black-backed gull: 4 (9/13)
3 - July 2025	2	Herring gull: 50 (13/13), Black-headed gull: 14 (3/13), Great black-backed gull: 1 (1/13), Little tern: 1 (2/13), Sandwich tern: 4 (1/13)
4 - August 2025	1	Herring gull: 45 (10/13), Great black-backed gull: 11 (3/13), Lesser black-backed gull: 3 (2/13), Common tern: 5 (2/13)
4 - August 2025	2	Herring gull: 110, (13/13) Great black-backed gull: 7 (8/13), Lesser black-backed gull: 2 (3/13), Black-headed gull: 12 (7/13), Common gull: 2 (1/13), Common tern: 20 (11/13), Sandwich tern: 20 (8/13)
Additional Comments:	All gull species being recorded both roosting on the beach as well as foraging and commuting offshore. No tern species were observed roosting on the beach or focusing on the previous outfall location. The majority of all species were observed commuting past the Survey Area offshore.	

Table 5: Summary of Results by Target Species

Species	Peak Count View Point 1	Peak Count View Point 2	Number of counts present View Point 1	Number of counts present View Point 2	Summary of Foraging Activity Recorded
Herring gull	77	110	May: 9/13 June: 11/13 July: 13/13 August: 10/13	May: 13/ 13 June: 13/ 13 July: 13/13 August: 13/13	Foraging on the water at the outfall location during 6 of 13 August observations at View Point 2
Great black-backed gull	11	7	May: 0/13 June: 2/13 July: 0/13	May: 3/13 June: 0/13 July: 9/13 August:8/13	None recorded

			August: 3/13		
Lesser black-backed gull	3	2	May: 0/13 June: 0/13 July: 0/13 August: 2/13	May: 0/13 June: 7/13 July: 0/13 August: 2/13	None recorded
Black-headed gull	2	21	May: 1/13 June:6/13 July: 0/13 August: 0/13	May: 1/13 June: 7/13 July: 3/13 August:7/13	Foraging on the water at the outfall location during 1 of 13 August observations at View Point 2
Common gull	0	2	May: 0/13 June: 0/13 July: 0/13 August: 0/13	May: 0/13 June: 0/13 July: 0/13 August: 2/13	None recorded
Mediterranean gull	0	4	May: 0/13 June: 0/13 July: 0/13 August: 0/13	May: 0/13 June: 7/13 July: 0/13 August: 0/13	None recorded
Common tern	5	35	May: 0/13 June: 0/13 July: 0/13 August:	May: 0/13 June: 0/13 July: 0/13 August: 11/13	Foraging on the water at the outfall location during 10 of 13 August observations at View Point 2
Sandwich tern	4	20	May: 0/13 June: 0/13 July: 0/13 August: 0/13	May: 0/13 June: 0/13 July: 1/13 August: 8/13	Foraging on the water at the outfall location during all August observations at View Point 2
Little tern	0	1	May: 0/13 June: 0/13 July: 0/13 August: 0/13	May: 0/13 June: 0/13 July: 2/13 August: 0/13	Foraging on the water 100m out to sea from View Point 2 during the July observations only.

5. Evaluation

5.1.1 The desk study and field surveys were used to determine the importance of the Survey Area (including the cooling water outfall location within Area D of the Works Area) for foraging target bird species (being terns and gulls), and this is presented in the following section.

5.1.2 Field surveys recorded nine target bird species, which comprise common tern, little tern, Sandwich tern, herring gull, black-headed gull, great black-backed gull, Mediterranean gull, lesser black-backed gull and common gull.

5.2 Qualifying Species of UK National Site Network sites

5.2.1 Given the location of Dungeness B and its proximity to designated sites of international importance, it is appropriate to consider the importance of the Survey Area to the birds recorded in the context of the assemblages of species relevant to these designated sites.

5.2.2 Field surveys of target bird species recorded four species that are cited as qualifying bird species of either the Dungeness, Romney Marsh and Rye Bay SPA or Dungeness, Romney Marsh and Rye Bay Ramsar site: common tern, Sandwich tern, little tern, and Mediterranean gull. Further discussion of these species is provided below.

5.2.3 Across all of the survey visits conducted:

- Common tern was only encountered flying over the beach during 2 of 13 counts in August 2025 only at View Point 1 with a peak count of five, and during 11 of 13 counts in August 2025 only at View Point 2 with a peak count of 20 foraging at the outfall location approximately 30m from the beach.
- Little tern was only encountered during 2 of 13 counts in July 2025 at View Point 2 only, with a peak count of one foraging 100m out to sea.
- Sandwich tern was only encountered during 1 of 13 counts during July (peak count four, feeding 100m out to sea from View Point 2) and 8 of 13 counts during August (peak count 35) foraging at the outfall location approximately 30m from the beach, viewed from View Point 2 only.
- Mediterranean gull was only encountered during 7 of 13 counts during June (peak count four) at View Point 2 only, on the beach with no sea foraging behaviour observed.

5.2.4 The beach and offshore habitats are designated for their populations of common tern, Sandwich tern, little tern and Mediterranean gull, including providing significant foraging resource within the water column, with known historic use of the cooling water outfall (located within Area D of the Works Area and approximately 150m south of Area A of the Works Area) by tern species in particular.

5.2.5 Since power generation ceased there has been anecdotal evidence of a significant reduction of the number of terns foraging at the outfall due to the

reduction in the volume and frequency of warm water expelled from the outfall.

5.2.6 Based on the results of the surveys completed in 2025 the foraging activity observed was recorded associated with the outfall location in August only, viewed from View Point 2 by common tern and Sandwich tern only with relatively low numbers recorded. Additionally low numbers of common tern and little tern were recorded foraging in the water approximately 100m out to sea from View Point 2 during July 2025.

5.2.7 It is therefore considered that there is unlikely to be significant disturbance and displacement, from activities associated with Proposed Works, of tern species and Mediterranean gull foraging in the waters immediately south of the Works Area.

5.3 Other Target Species

5.3.1 The majority of all species listed were observed commuting offshore, flying overhead or on the beach. Higher numbers of the target bird species were generally recorded from View Point 2 located further west than from View Point 1. Only herring gull and black-headed gull of the species recorded were observed foraging in the water column at the vicinity of the outfall in August 2025.

5.3.2 It is therefore considered that there is unlikely to be significant disturbance and displacement from activities associated with the Proposed Works of these gull species foraging in the waters immediately south of the Works Area.

6. Conclusions

6.1.1 The primary purpose of this report is to provide an assessment of the importance of the SPA designated offshore habitats within the Survey Area south of Area A of the Works Area (and in particular associated with the cooling water outfall within Area D of the Works Area) for foraging for the target bird species (gulls and terns).

6.1.2 Field surveys recorded nine target bird species across the four monthly visits, between May 2025 and August 2025. Little tern, Sandwich tern and Mediterranean gull were only recorded at View Point 2. Common tern was recorded at View Point 1 and View Point 2. Across the visits completed:

- Common tern was only encountered flying over the beach during 2 of 13 counts in August 2025 only at View Point 1 with a peak count of five, and during 11 of 13 counts in August 2025 only at View Point 2 with a peak count of 20 foraging at the outfall location approximately 30m from the beach.
- Little tern was only encountered during 2 of 13 counts in July 2025 at View Point 2 only, with a peak count of one foraging 100m out to sea.
- Sandwich tern was only encountered during 1 of 13 counts during July (peak count four, feeding 100m out to sea from View Point 2) and 8 of 13 counts during August (peak count 35) foraging at the outfall location approximately 30m from the beach, viewed from View Point 2 only.
- Mediterranean gull was only encountered during 7 of 13 counts during June (peak count four) at View Point 2 only, on the beach with no sea foraging behaviour observed.

6.1.3 The majority of gull species were only observed flying overhead or roosting on the pebble shingle beach, with herring gull and black-headed gull the only two gull species recorded foraging in the water column across the survey visits.

6.1.4 The beach and offshore habitats are designated for their populations of common tern, Sandwich tern, little tern and Mediterranean gull, including providing significant foraging resource within the water column, with known historic use of the cooling water outfall (located within Area D of the Works Area and approximately 150m south of Area A of the Works Area) by tern species in particular.

6.1.5 Since power generation ceased there has been anecdotal evidence of a significant reduction of the number of terns foraging at the outfall due to the reduction in warm water expelled from the outfall.

6.1.6 Based on the results of the surveys completed in 2025 the foraging activity observed associated with the outfall location was limited to during the August 2025 survey from View Point 2 only. Little tern was additionally recorded foraging in low numbers 100m offshore from View Point 2 during the July 2025 survey. While the Survey Area does form part of the SPA designated offshore habitats, the numbers present foraging were relatively low and the outfall no longer forms a significant foraging resource within the wider area. It is therefore considered that the relatively few foraging terns and gulls present forage at a sufficient distance offshore such that they are not likely to

be subject to significant disturbance and displacement from activities associated with Proposed Works.

Annex A: Target Species (Terns and Gulls) Full Survey Results

A.1 Visit 1 - May 2025

View Point 1 - 27 May 2025

Time	Count
08:38	Herring gull: 4 (flying over beach)
09:08	Herring gull: 18 (14 on beach, 4 flying over beach)
09:38	-
10:08	Herring gull: 1 (flying over beach)
10:38	Herring gull: 2 (flying over beach)
11:08	Herring gull: 6 (flying over beach)
11:38 (high tide)	Herring gull: 4 (flying over beach)
12:08	Herring gull: 2 (1flying over beach, 1 on beach)
12:38	-
13:08	Herring gull: 2 (flying over beach) Black-headed gull: 2 (flying over beach)
13:38	-
14:08	Herring gull: 1 (flying over beach)
14:38	-
Peak Count	**Herring gull: 18** **Black-headed gull: 2**

View Point 2 - 28 May 2025

Time	Count
9:25	Herring gull: 1 (flying over beach)
9:55	Herring gull: 4 (flying over beach)
10:25	Herring gull: 7 (flying over beach)
10:55	Herring gull: 4 (flying over beach)
11:25	Herring gull: 8 (flying over beach, 2 then landed on beach and 2 flew out to sea)
11:55	Herring gull: 9 (flying over beach)
12:25 (high tide)	Herring gull: 5 (flying over beach)
12:55	Herring gull: 6 (flying over beach)
13:25	Herring gull: 7 (flying over beach) Great black-backed gull: 3 (2 adults and 1 juvenile flying over sea)
13:55	Herring gull: 7 (flying over beach)
14:25	Herring gull: 5 (flying over beach) Great black-backed gull: 2 (flying over beach)
14:55	Herring gull: 6 (flying over beach)
15:25	Herring gull: 20 Black-headed gull: 1 (flying over beach)
Peak Count	**Herring gull: 20** **Black-headed gull: 1** **Great black-backed gull: 3**

A.2 Visit 2 - June 2025

View Point 1 - 25 June 2025

Time	Count
08:31	Herring gull: 8 (on beach) Black-headed gull: 1 (on beach)
09:01	Herring gull: 3 (on beach)
09:31	Black-headed gull: 1 (on beach)
10:01	Herring gull: 4 (on beach)
10:31	Herring gull: 5 (on beach) Great black-backed gull: 1 (on beach)
11:01	Herring gull: 1 (on beach)
11:31 (high tide)	Herring gull: 6 (on beach) Black-headed gull: 2 (on beach)
12:01	Herring gull: 2 (on beach) Black-headed gull: 1 (on beach)
12:31	-
13:01	Herring gull: 1 (on beach) Great black-backed gull: 1 (on beach)
13:31	Herring gull: 6 (on beach) Black-headed gull: 1 (on beach)
14:01	Herring gull: 12 (on beach) Black-headed gull: 1 (on beach)
14:31	Herring gull: 8 (on beach)
Peak Count	**Herring gull: 12** **Black-headed gull: 2** **Great black-backed gull: 1**

View Point 2 - 26 June 2025

Time	Count
09:21	Herring gull: 16 (4 flying over beach, 12 on beach) Black-headed gull: 21 (on beach) Mediterranean gull: 4 (on beach) Lesser black-backed gull: 1 (on beach)
09:51	Herring gull: 21 (9 flying over beach, 12 on beach) Black-headed gull: 21 (on beach) Mediterranean gull: 4 (on beach) Lesser black-backed gull: 2 (1 flying over beach, 1 on beach)
10:21	Herring gull: 17 (5 flying over beach, 12 on beach) Black-headed gull: 21 Mediterranean gull: 4 (on beach) Lesser black-backed gull: 2 (1 flying over beach, 1 on beach)
10:51	Herring gull: 16 (4 flying over beach, 12 on beach) Black-headed gull: 21 (1 flying over beach, 20 on beach) Mediterranean gull: 4 (on beach) Lesser black-backed gull: 2 (1 flying over beach, 1 on beach)
11:21	Herring gull: 15 (3 flying over beach, 12 on beach) Black-headed gull: 21 (on beach) Mediterranean gull: 4 (on beach) Lesser black-backed gull: 1 (on beach)
11:51	Herring gull: 17 (5 flying over beach, 12 on beach) Black-headed gull: 21 (on beach) Mediterranean gull: 4 (on beach) Lesser black-backed gull: 2 (1 flying over beach, 1 on beach)
12:21 (high tide)	Herring gull: 3 (on beach) Black-headed gull: 6 (on beach) Mediterranean gull: 1 (on beach)
12:51	Herring gull: 5 (on beach)
13:21	Herring gull: 3 (on beach)
13:51	Herring gull: 11 (on beach)
14:21	Herring gull: 11 (on beach)
14:51	Herring gull: 50 (on beach)

	Lesser black-backed gull: 1 (flying over beach)
15:21	Herring gull: 5 (flying over beach)
Peak Count	**Herring gull: 50** **Black-headed gull: 21** **Mediterranean gull: 4** **Lesser black-backed gull: 2**

A.3 Visit 3 - July 2025

View Point 1 - 28 July 2025

Time	Count
11:13	Herring gull: 75 (mainly on beach, some on water close to shore)
11:43	Herring gull: 75 (mainly on beach, some on water close to shore)
12:13	Herring gull: 77 (mainly on beach, some on water close to shore) Great black-backed gull: 1 (loafing on beach)
12:43	Herring gull: 76 (mainly on beach, some on water close to shore) Great black-backed gull: 4 (loafing on beach)
13:13	Herring gull: 75 (mainly on beach, some on water close to shore) Great black-backed gull: 2 (loafing on beach)
13:43	Herring gull: 59 (mainly on beach, some on water close to shore) Great black-backed gull: 1 (loafing on beach)
14:13 (high tide)	Herring gull: 26 (mainly on beach, some on water close to shore) Great black-backed gull: 1 (loafing on beach)
14:43	Herring gull: 43 (mainly on beach, some on water close to shore) Great black-backed gull: 1 (loafing on beach)
15:13	Herring gull: 38 (mainly on beach, some on water close to shore) Great black-backed gull: 1 (loafing on beach)
15:43	Herring gull: 26 (mainly on beach, some on water close to shore)
16:13	Herring gull: 54 (mainly on beach, some on water close to shore) Great black-backed gull: 1 (loafing on beach)
16:43	Herring gull: 54 (mainly on beach, some on water close to shore) Great black-backed gull: 2 (loafing on beach)
17:13	Herring gull: 50 (mainly on beach, some on water close to shore)
Peak Count	**Herring gull: 77** **Great black-backed gull: 4**

View Point 2 - 29 July 2025

Time	Count
11:50	Herring gull: 50 (mainly on beach, some on water close to shore)
12:20	Herring gull: 50 (mainly on beach, some on water close to shore)
12:50	Herring gull: 21 (loafing on beach)
13:20	Herring gull: 21 (loafing on beach)
13:50	Herring gull: 11 (loafing on beach)
14:20	Herring gull: 15 (loafing on beach) Black-headed gull: 14 (flying over sea)
14:50 (high tide)	Herring gull: 11 (loafing on beach) Black-headed gull: 3 (loafing on water) Little tern: 1 (feeding in water column) Sandwich tern: 4 (feeding in water column)
15:20	Herring gull: 18 (loafing on beach)
15:50	Herring gull: 5 (loafing on beach)
16:20	Herring gull: 10 (3 flying over water, 7 loafing on beach) Black-headed gull: 5 (2 flying over water, 3 on beach)
16:50	Herring gull: 29(mainly on beach, some on water close to shore) Great black-backed gull: 1 (loafing on beach)
17:20	Herring gull: 40 (mainly on beach, some on water close to shore)
17:50	Herring gull:26 (mainly on beach, some on water close to shore) Little tern: 1 (feeding in water column)
Peak Count	**Herring gull: 50** **Black-headed gull: 14** **Great black-backed gull: 1** **Little tern: 1** **Sandwich tern: 4**

A.4 Visit 4 - August 2025

View Point 1 - 27 August 2025

Time	Count
11:19	Herring gull: 43 (37 on beach, 6 flying over beach) Great black-backed gull: 11 (8 on beach, 3 flying over beach) Lesser black-backed gull: 3 (on beach) Common tern: 5 (flying over beach)
11:49	Herring gull: 35 (on beach) Great black-backed gull: 5 (on beach) Lesser black-backed gull: 1 (on beach)
12:19	Herring gull: 45 (on beach)
12:49	Herring gull: 4 (on beach) Great black-backed gull: 1 (on beach) Black-headed gull: 1 (on water close to beach)
13:19	Herring gull: 3 (on water close to beach) Common tern: 1 (flying over beach)
13:49	-
14:19 (high tide)	-
14:49	Herring gull: 2 (1 flying over beach, 1 on water close to beach)
15:19	Herring gull: 1 (flying over beach)
15:49	-
16:19	Herring gull: 6 (flying over beach) Great black-backed gull: 4 (flying over beach)
16:49	Herring gull: 10 (8 on beach, 2 flying over beach)
17:19	Herring gull: 4 (2 on beach, 2 flying over)
Peak Count	**Herring gull: 45** **Great black-backed gull: 11** **Lesser black-backed gull: 3** **Common tern: 5** **Black-headed gull: 1**

View Point 2 – 28 August 2025

Time	Count
11:46	Herring gull: 51 (45 on beach, 6 foraging on water) Great black-backed gull: 1 (on beach) Black-headed gull: 10 (foraging on water) Common tern: 20 (foraging on water)
12:16	Herring gull: 71 (65 on beach, 6 foraging on water) Great black-backed gull: 1 (on beach) Black-headed gull: 12 (foraging on water) Common tern: 20 (foraging on water)
12:46	Herring gull: 71 (45 on beach, 2 flying over beach, 6 foraging on water) Great black-backed gull: 1 (on beach) Black-headed gull: 12 (3 foraging on water) Lesser back-backed gull: (on beach) Common tern: 35 (foraging on water) Sandwich tern: 15 (foraging on water)
13:16	Herring gull: 110 (100 on beach and 10 flying over beach) Lesser black-backed gull: 2 (on beach) Black-headed gull: 3 (foraging on water) Common tern: 20 (foraging on water) Sandwich tern: 20 (foraging on water)
13:46	Herring gull: 110 (90 on beach, 10 flying over beach. 10 foraging on water) Common tern: 15 (foraging on water) Sandwich tern: 5 (foraging on water)
14:16	Herring gull: 95 (75 on beach, 15 foraging on water) Great black-backed gull: 1 (on beach)

	Lesser black-backed gull: 2 (on beach) Black-headed gull: 1 (on beach) Common tern: 6 (foraging on water) Sandwich tern: 2 (foraging on water)
14:46 (high tide)	Herring gull: 75 (25 on beach, 40 on water close to beach, 10 foraging in water) Lesser black-backed gull: 1 (on beach) Black-headed gull: 8 (foraging in water) Common tern: 6 (foraging in water) Sandwich tern: 2 (foraging in water)
15:16	Herring gull: 53 (on beach) Great black-backed gull: 1 (on beach) Common tern: 6 (foraging in water) Sandwich tern: 2 (foraging in water)
15:46	Herring gull: 45 (40 on beach, 5 flying over beach) Great black-backed gull: 3 (on beach) Common gull: 2 (on beach) Common tern: 4 (foraging on water) Sandwich tern: 4 (foraging on water)
16:16	Herring gull: 50 (on beach) Common tern: 10 (foraging on water) Sandwich tern: 10 (foraging on water)
16:46	Herring gull: 45 (40 on beach, 5 flying over beach)
17:16	Herring gull: 47 (45 on beach, 2 flying over beach) Great black-backed gull: 7 (on beach)
17:46	Herring gull: 45 (on beach) Great black-backed gull: 7 (on beach) Black-headed gull: 4 (flying over water just offshore) Common tern: 5 (flying over water just offshore)

Peak Count	**Herring gull: 110** **Great black-backed gull: 7** **Lesser black-backed gull: 2** **Black-headed gull: 12** **Common gull: 2** **Common tern: 35** **Sandwich tern: 20**

Revision: 0 Drawn: AD Checked: EC Approved: NS Date: 2026-02-18

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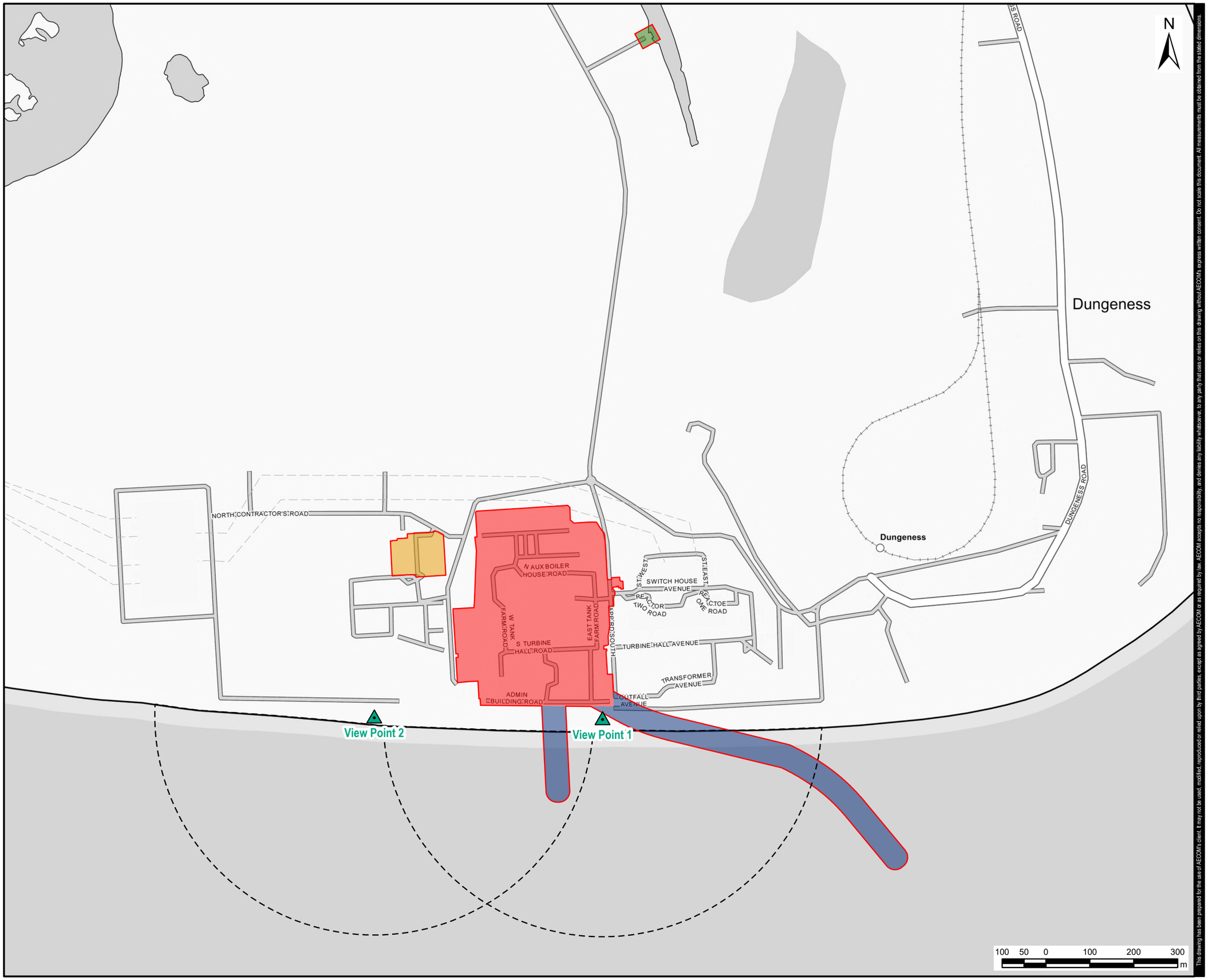

AECOM

PROJECT

Dungeness B Nuclear Decommissioning

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LEGEND

- The Works Area
- Area A
- Area B
- Area C
- Area D
- Tern and Gull View Point Location
- 500m Survey Area

NOT PROTECTIVELY MARKED

NOTES

ISSUE PURPOSE

EIA Scoping Report

PROJECT NUMBER

60739933

FIGURE TITLE

Tern and Gull View Point Locations

FIGURE NUMBER	REV
Figure 18C-1	0

DOCUMENT NUMBER

Appendix 18D Preliminary Habitat Regulations Assessment Screening Report

Table of Contents

Plates

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1 Introduction

1.1 Overview and context

1.1.1 EDF Energy Nuclear Generation Ltd (hereafter referred to as 'the Applicant') is applying for consent from the Office of Nuclear Regulation (ONR) to decommission and dismantle the Dungeness B Nuclear Power Station (hereafter referred to as 'Dungeness B' under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR). The decommissioning and dismantling works at Dungeness B which are subject to ONR consent are referred to as the 'Proposed Works'.

1.1.2 Dungeness B power station is an advanced gas-cooled reactor which began operation in 1983. It was planned that the Station would generate electricity up to 2028, however following a station outage in 2018, a decision was made in 2021 to cease generation due to technical constraints.

1.1.3 The scope of this report covers decommissioning and deconstruction activities. The Proposed Works would begin once reactor defueling is complete. Defueling is currently in progress and is expected to conclude toward by 2039. Defueling activities are outside the scope of the Proposed Works. The Works Area is shown within **Figure 1-1**.

1.1.4 The Proposed Works will include the decommissioning of the plant and apparatus, and the deconstruction of buildings and structures within and outside the Nuclear Site Licence (NSL) boundary that were an integral part of the power station.

1.2 Purpose of this report

1.2.1 This report is the Preliminary Habitats Regulations Assessment (HRA) stage 1 – Screening for Likely Significant Effects task described in **Section 2** of this document. It is based on an understanding of the planned scope and nature of the Proposed Works at Dungeness B, based on information available at the time of writing. It does not constitute a formal submission, but rather an informal early-stage document intended to secure early alignment with the ONR and Natural England on the issues that require consideration.

1.2.2 A formal submission of a HRA Stage 1 – Screening LSE task will be submitted to Natural England at an appropriate time in the future following further design development and the completion of further survey work.

1.2.3 It is acknowledged that the decommissioning strategy will continue to evolve as the licensee refines the plans and progresses through subsequent stages of design and implementation. Therefore, this assessment utilises a Rochdale envelope approach to incorporate a defined level of flexibility to accommodate foreseeable, minor variations in methods or sequencing that do not materially alter the nature, scale, or location of the Proposed Works (see **Section 3.4** for further detail). Our approach to this Preliminary HRA is

iterative, and future modifications beyond these parameters, following the further design development and survey work, will be reviewed against the assumptions set out in this HRA to determine whether additional assessment is required. As such, LSE identified in this report are likely to be subject to additional screening on completion of all outstanding relevant survey work as part of the formal submission of a HRA Stage 1 – Screening LSE task and may not automatically progress to the Appropriate Assessment stage (HRA Stage 2).

1.3 Works Area

Areas described in the Preliminary HRA Screening Report

1.3.1 For the purposes of this Preliminary HRA Screening Report, the Works Area is divided into following areas, as shown on **Figure 1-1**:

- Area A – the existing Dungeness B power station site;
- Area B – the area associated with the B1 Hanger;
- Area C – the area associated with the back-up cooling water infrastructure at Long Pits
- Area D – the area associated with the cooling water infrastructure within the English Channel

The Works Area Location and Context

Location

1.3.2 Dungeness B Power Station is in a coastal setting on the South Kent Coast, bounded by the English Channel to the south, surrounded by Denge Beach to the northeast and Denge Marsh to the north and west.

Ecological Context

1.3.3 **Table 1-1** provides a summary of the distances from the Works Area to Habitat Sites in the immediate vicinity of the Works Area. Additional Habitats sites are discussed in **Section 4**.

Table 1-1: Locations of Habitat sites in the immediate vicinity of the Works Area

Habitat Site	Distance from (m)			
	Area A	Area B	Area C	Area D
Dungeness, Romney Marsh and Rye Bay Special Protection Area (SPA)	53	342	0	0
Dungeness, Romney Marsh and Rye Bay Ramsar	449	698	0	6

Habitat Site	Distance from (m)			
	Area A	Area B	Area C	Area D
Dungeness Special Area of Conservation (SAC)	61	8	0	56

1.3.4 Area C of the Works Area is located within the Dungeness SAC, which also abuts Area B of the Works Area.

1.3.5 Area C of the Works Area is also located within The Dungeness, Romney Marsh and Rye Bay Special Protection Area SPA and Dungeness, Romney Marsh and Rye Bay Ramsar site. These sites are located approximately 160m to the west of the Area A works at its closest point.

1.3.6 Areas surrounding the Works comprise vegetated shingle, saline lagoons, fresh waterbodies, scrub, and mosaic habitats. The surrounding area to the west and northwest of the Works Area is largely uninhabited, with areas of agricultural land located 2.5km to the north west of the site.

1.3.7 The Royal Society for the Protection of Birds (RSPB) Dungeness Reserve is located approximately 1.2km from the Works Area at its closest point.

Wider context

1.3.8 The nearest town is Lydd, located approximately 4.3km northwest of the Area A of the Works Area. There are several residential properties in close proximity to the Area A of the Works Area, the closest of which are the houses and holiday rental accommodation along Dungeness Road, located approximately 340m east-northeast of Area A, at its closest point. There are also other amenities along Dungeness Road, the closest of which is the Britannia Inn, located approximately 780m east of Area A of the Works Area.

1.3.9 Dungeness substation, Lydd military firing range, and Herons Park campsite and events venue are located approximately 410m west, 4km west, and 3.8km northwest, respectively, from Area A of the Works Area.

1.3.10 Dungeness Power Station A (Nuclear Restoration Services) lies adjacent to and to the east of Dungeness B. Dungeness A ceased energy production in 2006 and is in the process of being decommissioned.

1.4 The Proposed Works

Overarching Decommissioning Strategy

1.4.1 The primary objective of decommissioning Dungeness B is to safely dismantle and remove all redundant plant, structures, and systems, ultimately restoring the site to meet agreed decommissioning criteria and regulatory requirements. This is a complex process that will span many decades with two overarching strategies under consideration:

- **Early Safestore**, as the baseline strategy, which involves completing Initial Decommissioning Works, constructing a Safestore structure, and entering a Care and Maintenance period with minimal activity on the site

before site reinstatement to allow reactor dismantling and final site clearance; and

- **Prompt Decommissioning**, which proceeds directly to continuous dismantling following the completion of Initial Decommissioning Works without a Care and Maintenance deferral period.

1.4.2 While these strategies differ in timing and durations, the core activities, such as dismantling structures, managing waste, and site clearance, remain consistent across both strategies.

1.4.3 While the overall process primarily involves dismantling and removing existing structures and systems, temporary new infrastructure will be required to support the safe and efficient delivery of decommissioning and deconstruction activities. This may include new buildings, equipment, and facilities introduced during specific phases of the Proposed Works. The construction, operation, and eventual removal of this supporting infrastructure are included within the scope of the HRA assessment to ensure potential impacts are fully considered.

Phases of the Proposed Works

1.4.4 The decommissioning and dismantling processes comprise a number of discrete work activities and delivery phases. The key phases of the Proposed Works include:

- Initial Decommissioning Works comprising:
  - Conventional decommissioning, de-planting and dismantling of redundant plant, buildings and infrastructure to take the respective structures back to the existing ground levels. These works are primarily intended to support the removal of redundant nuclear power plant infrastructure as part of the overall decommissioning process.
  - Completion of works in the marine environment, comprising the installation through construction of an Alternative Active Effluent Discharge Line (AAEDL), an Alternative Treated Sewage Discharge Line (ATSDL) (the ‘Marine Works’).
  - The processing, packaging and removal of operational Higher Activity Waste (HAW) that has been intentionally and safely accumulated on-site during generation in dedicated storage locations and the processing, packaging and disposal of Lower Activity Waste (LAW) generated as a result of de-planting and dismantling activities.
  - The project includes developing waste processing and storage facilities to support increased radioactive waste management requirements associated with decommissioning activities. Optioneering work is underway to evaluate the different options which include upgrading existing on-site facilities, sharing facilities with Dungeness A, or building new on-site facilities for Operational Waste Processing Facility, Decommissioning Waste Processing Facility, and an Interim Intermediate Level Waste Store requirements.

- Care and Maintenance (Early Safestore approach only) where:
  - As an enabling activity prior to the commencement of the Care and Maintenance phase (i.e. in the Initial Decommissioning Works) the construction of a Safestore structure to encase reactor building, the residual structures comprising the reactors, and fuel handling facilities to provide a safe, secure, weatherproof envelope that can be readily maintained for the safe storage period.
  - The Safestore will be left in a passive state with minimal human intervention and associated activities to allow for the radioactivity, associated with the reactor core structures and materials within the debris vaults, to decay over time. This approach reduces radiation levels naturally, making future dismantling safer and more cost-effective, while also supporting the creation of an optimised number of radiological waste packages for eventual disposal.
  - Activities would be limited to optimised surveillance, monitoring, maintenance of the Safestore, security arrangements and site services.
- Final Site Clearance, comprising:
  - Re-establishing the site following Care and Maintenance to prepare for the final site clearance activities (Early Safe Store Strategy only).
  - The construction of a Waste Management Centre for reactor dismantling and debris vault waste processing requirements.
  - Decommissioning, de-planting and dismantling of the reactors, debris vaults and associated nuclear island, and the buildings constructed to support the decommissioning of the reactor building, reactor and debris vaults.
  - The objective is to leave the terrestrial component of the Works Area flat and level, with voids either filled or made safe, and in a condition that meets agreed decommissioning criteria, as determined in consultation with regulators. This would enable the Nuclear Site Licence area to be delicensed and allow for future decisions to be made regarding the potential release or re-use of the land within the Works Area, at an appropriate time in the future.

1.4.5 Under the Prompt Decommissioning approach, the same overall scope of work would be undertaken as in the Early Safestore approach; however, activities would proceed in a continuous sequence without a Safestore or planned long pause for Care and Maintenance (Phase 2 of the Early Safestore approach). Instead of placing the site into a passive state to allow for radioactive decay, work would progress directly from Phase 1 activities into preparations for, and the subsequent delivery of, reactor dismantling and debris vault clearance, which would include the construction and use of the Waste Management Centre to support these operations.

1.4.6 As the focus of this assessment is on the Initial Decommissioning Works, with a high-level qualitative assessment of the later phases, further details on this phase are provided below.

Initial Decommissioning Works

Intended outcomes

1.4.7 Following defueling of the reactors with declaration of Fuel Free Verification (FFV) status, the Initial Decommissioning Works phase (Phase 1) would commence.

1.4.8 The purpose of the Initial Decommissioning Works phase is to reduce the hazards presented by the radioactive and conventional materials, wastes, and other industrial hazards on site. This is to enable entry into a passively safe and secure state for the Care and Maintenance phase, where the need for human intervention to maintain acceptable conditions is minimised so far as is reasonably practicable. The key activities include:

- infrastructure requirements;
- deplanting, decommissioning and dismantling;
- marine works; and
- waste management.

1.4.9 Whilst much of the area of the Works Area would have been dismantled by the end of this phase, it is intended that the entire operational boundary comprising the double security fence would be retained (see **Figure 1-1**). This is because the number of plant systems and buildings required to be maintained in an operational condition would diminish throughout the period of preparation for the site to enter the Care and Maintenance period. While remaining on-site, any retained plant systems and structures must, and would be, maintained in an appropriately safe condition. Land is not planned be released for future use within the operational NSL boundary until the Final Site Clearance Phase.

Infrastructure requirements

1.4.10 The following infrastructure could be required in support of the decommissioning and dismantling process at Dungeness B under both strategies (unless otherwise mentioned):

- Operational Waste Processing Facility (OWPF) – to process lifetime arisings of HAW;
- Decommissioning Waste Processing Facility (DWPF) - to process active area deplanting waste, which would predominately be classified as LAW;
- Interim Conditioned Intermediate Level Waste Store (ICILWS) – to store Intermediate Level Waste (ILW);
- An Alternative Active Effluent Discharge Line (AAEDL);
- An Alternative Treated Sewage Discharge Line (ATSDL); and
- A Safestore (Early Safestore approach only).

1.4.11 The environmental effects associated with the construction, operation and decommissioning of the OWPF, DWPF, ICILWS and Waste Management Centre will be considered where relevant within the EIADR application and supporting HRA.

Operational Waste Processing Facility

1.4.12 The OWPF would be used to process accumulated operational wastes on the station (excluding those stored in the High Active Debris Vaults) and ILW generated from the Proposed Works during Phase 1 of both strategies [Operational wastes are currently stored on site, in accordance with the original design intent of the station]. The types of waste to be processed are expected to include contaminated materials including desiccant, catalyst, resins, sludges, and sands.

1.4.13 It is currently assumed that the OWPF would be a new building, however studies are ongoing and there is potential for the OWPF capabilities to be housed within an existing building.

1.4.14 If the OWPF is a new structure, it would likely consist of a metal-clad portal frame structure on a concrete floor with a maximum footprint of 1500 m^2 and maximum height of 15 m.

Decommissioning Waste Processing Facility

1.4.15 The DWPF would be either a new build structure or refurbishment of an existing on-site building and would be required early in the Initial Decommissioning Works and prior to the commencement of active area deplanting.

1.4.16 The DWPF would be designed with robust contamination controls that would be used during its operation and with decommissioning and dismantling considerations integrated from the outset. After processing, the facility would segregate waste into streams for:

- Recycling and reuse wherever practicable;
- Incineration for suitable combustible materials; and
- Landfill disposal for residual wastes that cannot be treated by other means.

1.4.17 While the DWPF is capable of accepting both LAW and HAW, its primary function is to reduce, sort, and prepare LAW for safe onward management at licensed facilities.

1.4.18 The DWPF would be either a new build structure or refurbishment of an existing structure located within the Works Area. If a new build structure, it is anticipated that the structure would have a maximum footprint of 2,000 m^2 and a maximum building height of 15 m. It would be likely to consist of a metal-clad portal frame structure on a concrete floor.

Interim Conditioned Intermediate Level Waste Store

1.4.19 The Initial Decommissioning Works of both strategies would generate LAW and limited quantities of HAW classified as ILW. It is anticipated that HAW waste packages would ultimately be transferred to a Geological Disposal Facility (GDF); however, the GDF is not expected to be available until at least the 2050s. Until then, the waste would need to be stored safely. Optioneering studies are ongoing to determine the most appropriate interim storage solution, which may involve using an existing off-site facility or

constructing a purpose-built store on site (the ICILWS). As these decisions are not yet finalised, the HRA will consider a reasonable worst case when assessing potential environmental effects and be based on currently available information.

1.4.20 Should it be determined that an ICILWS would be required within the Works Area to store the ILW that has been processed in the OWPF, pending off-site disposal to a GDF, this would be a new structure located within the Works Area. If it is required, it is anticipated that the structure would have a maximum footprint of 2000m^2 and a maximum building height of 20m.

Deplanting and deconstruction

1.4.21 Decommissioning will begin with hazard reduction to make the site safe for subsequent work. This includes isolating and disconnecting electrical systems and safely discharging any stored energy within plant and equipment. Hazardous materials, such as asbestos, will also be removed by licensed contractors, securely packaged, and transported to approved off-site facilities.

1.4.22 Once these hazards have been addressed, plant and equipment will systematically be de-planted and dismantled. Conventional buildings such as the turbine hall, heavy stores and B1 hanger, and ancillary structures will then be taken down using good practice standard deconstruction and demolition techniques. The phasing and sequencing of this work is subject to ongoing work but is estimated to take the full duration of the Initial Decommissioning Works to complete. The objective being to return those structures within scope to existing ground levels. Any resulting sub-basements or similar spaces, will be made safe through appropriate measures, which may include capping and infill.

1.4.23 A programme of risk based deplanting would also be undertaken during this phase to remove active (radiological) components from radiologically controlled areas within the Works Area. This would be managed through the implementation of an Active Area Deplanting Strategy.

1.4.24 The majority of the non-active plant, systems and buildings on-site would be demolished to ground level leaving materials such as building base slabs, roads and other hard standing in-situ.

1.4.25 Within Area C, it is envisaged that the back-up cooling water supply pump house would be dismantled and any submerged infrastructure would remain in situ.

1.4.26 During de-planting and dismantling activities, there would be movement of plant and demolition arisings, and the use of cranes and other engineering equipment including mobile plant to facilitate safe dismantling. The work would use suitably qualified and experienced demolition contractor(s) that would work in accordance with The Construction (Design and Management) Regulations 2015[1]. All dismantling and decommissioning works would be undertaken in accordance with a written method statements subject to

[1] Construction (Design and Management) Regulations 2015 (online), Available at: https://www.legislation.gov.uk/uksi/2015/51/contents (Accessed 28/10/2025).

review and approval, with working methods incorporating relevant industry best practice for demolition (e.g. BS 6187:2011[2]).

Marine Works

1.4.27 Works below Mean High Water Springs (MHWS) hereafter referred to collectively as 'the Marine Works') are limited to the infrastructure installations listed below, which are required to support the continued management of permitted discharges after operation of the main cooling water pumps has ceased. These discharges are regulated under existing environmental permits issued by the Environment Agency and are therefore outside the scope of the EIADR assessment:

- Installation of an AAEDL will allow permitted radioactive discharges from the existing Active Effluent Treatment Plant (AETP) to continue. These discharges are already authorised under the site's radioactive substances permit (EPR/SB3035DF). The AAEDL is needed because cooling water flows will cease, and the current outfall tunnel is oversized for decommissioning requirements.
- Installation through construction of an ATSDL to convey effluent from the existing Sewage Treatment Plant (STP). This discharge is covered by the existing water discharge activity permit (EPR/P1288/K/87), which was varied in 2024 to reflect current site arrangements. The new STPL provides an alternative route to the currently permitted discharge point at the cooling water outlet.

1.4.28 These works are being undertaken to ensure continuity of permitted discharges and do not represent new or materially different discharges. The requirement for associated permit variations will be determined through ongoing technical assessments and consultation with the Environment Agency.

1.4.29 Dismantling and decommissioning of the existing cooling water intake and outfall infrastructure located below MHWS is not currently proposed or anticipated to be undertaken during the Initial Decommissioning Works phase, with only landward-based decommissioning activities within the Works Area included in the Initial Decommissioning Works.

1.4.30 Radioactive discharges are not in scope of the EIADR Application, due to the regulations and processes already in place to manage their environmental effects. Therefore, radioactive discharges are not considered within this Preliminary HRA Screening Report.

Waste management

1.4.31 During Phase 1, the deplanting and deconstruction works would generate both radioactive and conventional (i.e. non-radioactive) wastes. Waste management during these activities would be undertaken in accordance with the principles of the waste hierarchy, prioritising waste prevention, reuse,

[2] British Standard Institute, 2011,Code of practice for full and partial demolition.

and recycling before disposal, as outlined in the UK Radioactive Waste & Materials Inventory guidance[3].

Conventional Waste

1.4.32 Conventional waste would be managed in accordance with the Environmental Protection Act 1990[4], the Waste (England and Wales) Regulations 2011[5], and other applicable legislation. All waste streams would be subject to appropriate characterisation, segregation, and treatment, with disposal routes selected to minimise environmental impact and ensure compliance with regulatory requirements.

1.4.33 All hazardous materials, such as asbestos, would be removed by licensed contractors, packaged and taken to appropriate licensed facilities. Existing systems, plant and equipment may be dismantled in-situ, or broken into parts to be taken elsewhere in the Works Area for further processing. It is expected that after deplanting and any other internal clean-up is complete, dismantling would be carried out using conventional methods. The exact method to be used would be determined with the appointed contractor at the time. Bulk/oversized plant may be cut or split into components or sub-component parts prior to removal.

1.4.34 All dismantling materials and arisings on-site would be, as far as possible, segregated and sorted at source. The materials and wastes during the Initial Decommissioning Works would be radiologically clean, and the majority would be non-hazardous. The materials and waste would be transferred to a dedicated area on-site, separated into different types, size-reduced if required and placed into large off-site transport skips for use or disposal at offsite permitted facilities.

1.4.35 Where possible, levels would be restored to existing ground level using clean site-won recycled concrete material generated from demolition arisings as part of the Proposed Works. The approach to filling of voids is being developed in accordance with the waste hierarchy, optimising the use of site won material and avoiding the use of imported material where possible, and having regard to groundwater management considerations, definition of waste criteria and associated legislation.

Radioactive waste

1.4.36 For radioactive waste, management practices would comply with the Radioactive Substances activity permit under the Environmental Permitting (England and Wales) Regulations 2016 (as amended)[6], and be guided by the Environment Agency's Radioactive Substances Regulation objectives and principles, which align with the IAEA General Safety Requirements Part

[3] Nuclear Decommissioning Authority, Applying the Waste Hierarchy (online), Available at: https://ukinventory.nda.gov.uk/information-hub/about-radioactive-waste/what-is-the-waste-hierarchy/ (accessed 28/10/2025)
[4] Environmental Protection Act 1990 (online), Available at: https://www.legislation.gov.uk/ukpga/1990/43/contents (accessed 28/10/2025)
[5] Waste (England and Wales) Regulations 2011 (online), available at: https://www.legislation.gov.uk/uksi/2011/988/contents (accessed 28/10/2025)
[6] The Environmental Permitting (England and Wales) Regulations 2016 (online), Available at: https://www.legislation.gov.uk/uksi/2016/1154/contents (accessed 28/10/2025)

6. Operators would continue to hold and operate under a radioactive substances environmental permit, ensuring that all activities are regulated to protect human health and the environment.

1.4.37 Additionally, the ONR enforces compliance with NSL conditions, including Licence Condition 32 (Accumulation of radioactive waste), Licence Condition 33 (Disposal of radioactive waste), and Licence Condition 34 (Leakage and escape of radioactive material), ensuring safe handling, storage, and disposal throughout the decommissioning lifecycle.

1.4.38 The approach to the management of radioactive waste would reflect the UK Government's updated Policy Framework for Managing Radioactive Substances and Nuclear Decommissioning (2024)[7], which emphasises sustainable decommissioning, environmental protection, and the use of best available techniques (BAT).

Care and Maintenance

1.4.39 This phase would only be required within the Early Safestore approach as is not relevant to the Prompt Decommissioning approach.

Intended outcomes

1.4.40 The Care and Maintenance phase would commence after the completion of the Phase 1 described above. The Works Area would remain in a state of passive safety for approximately 55 years under a regime of continuous monitoring and surveillance, with periodic care and maintenance.

1.4.41 The purpose of the Care and Maintenance phase is to allow further radioactive decay to occur prior to undertaking the final site clearance.

Safestore

1.4.42 Following deplanting and decontamination of the reactor building, residual structures comprising the reactors vessels and fuel handling facilities would be protected within a robust and secure Safestore structure. The Safestore would be intended to function for a period of up to Final Site Clearance.

1.4.43 The basic function of the Safestore is to fully enclose the residual radioactive plant and structures and provide a safe, secure, weatherproof envelope that can be readily maintained for the safe storage period.

1.4.44 The Safestore structure would be based on the existing structure of the reactor building, its shape, structural elements and foundations where possible. The architectural design and external finish of the Safestore would be designed to minimise the visual impact of the structure and be appropriate to the surrounding areas but without detracting from functional requirements.

[7] Department for Energy Security and Net Zero, 2024, (online), Available at: https://assets.publishing.service.gov.uk/media/6632371769098ded31fca7c1/managing-radioactive-substances-and-nuclear-decommissioning-uk-policy-framework.pdf (accessed 28/10/2025)

Care and Maintenance activities

1.4.45 During the Care and Maintenance phase the Works Area would be maintained in a state to allow further radioactive decay to occur on materials within the Safestore. The design basis of the Safestore structure is that it would require only a minimal programme of work to sustain the safe, stable, passive storage conditions and the continued integrity of the Safestore and Works Area. Monitoring and surveillance systems, along with the intruder resistant design of the Safestore structure would ensure that the security of the Works Area is maintained. There would be periodic visits by the Site Licensee to inspect and monitor the Works Area and its environs. This includes visual inspections, radiological and environmental monitoring, general grounds maintenance and any other activities required. During the surveillance period there may be a need for refurbishment or replacement of materials, e.g. of building cladding materials or supports.

Waste management facilities

1.4.46 During this phase, if a ICILWS has been constructed, it would be maintained, and the condition of the ILW waste packaged within the store monitored. During this phase the ICILWS would be emptied and the packaged wastes transferred to the GDF.

1.4.47 At the end of this phase, the Site Licensee would carry out final decommissioning and dismantling planning, to ensure that all regulatory requirements are in place for reactor dismantling and Final Site Clearance. This would include the construction of the Waste Management Centre.

Final Site Clearance

Final site clearance activities

1.4.48 A detailed programme of site reinstatement works in preparation for the Final Site Clearance phase would be prepared at the end of the Care and Maintenance phase. Final Site Clearance would involve decommissioning and dismantling of remaining infrastructure, including the Safestore, reactor building, reactor vessels and vaults. Demolition of buildings and infrastructure constructed for decommissioning the reactor building, reactor vessels, vaults, such as the Waste Management Centre, would also be undertaken. This phase is estimated to last approximately 15 years in duration and would commence up to 75 years after FFV.

1.4.49 During this period, some further land de-contamination may be required to enable the Works Area to reach end state and be de-licensed. The relevant environmental regulator would only agree to release the Works Area from Radioactive Substances Regulation if they are satisfied that radioactive waste disposal has ended and that the Works Area is left in a state that would ensure the protection of people and the environment.

Waste Management

1.4.50 The Waste Management Centre would receive radioactive wastes retrieved from the deplanting and reactor vessel and vault waste retrieval works within the Safestore, sort the wastes as required, carry out any further size

reduction or processing of wastes and load the wastes into packages for onward treatment or final disposal.

Landscaping

1.4.51 Consideration would be given to final landscaping towards the end of Final Site Clearance. Upon de-licensing of the Works Area, the Works Area fences would be removed, and land would be made available for future use.

1.5 Project timeline

1.5.1 The Proposed Works will be continuous over a period of decades. with the Indicative Dismantling and Decommissioning Timeline shown in **Table 1-2** where T-0 indicates the start date of the EIADR project.

Table 1-2: Indicative Dismantling and Decommissioning Timeline

Phase	Early Safestore Approach Timescales	Prompt Decommissioning Approach Timescales
Initial Decommissioning Works	T-0 to T+20	T-0 to T+20
Care and Maintenance	T+20 to T+75	N/A
Final Site Clearance	T+75 to T+90	T+20 to T+40

1.6 Limitations and assumptions

1.6.1 This Preliminary HRA Screening Report has been written in advance of a number of surveys, including wintering bird, breeding bird, eDNA surveys of waterbodies other than The Long Pits and noise surveys, in order to initiate discussion with key stakeholders such as Natural England, and to guide decisions over those impact pathways that need detailed consideration through additional Screening or Appropriate Assessment. Screening has adopted the precautionary principle. Potential impacts ‘screened in’ for further assessment at Appropriate Assessment stage may be screened out as additional information becomes available.

1.6.2 In respect of the Marine Works, as the likely method of installing the new transfer pipelines within the existing infrastructure is subject to detailed design, it assumed for the purpose of this assessment that either some limited drilling, or a gravity-based pipe-weight system may be required.

1.6.3 The Marine Works are situated entirely within the subtidal area off Dungeness Beach. No access will be required to the intertidal area during the Marine Works. However, due to the location of the Marine Works and the potential for some indirect impact pathways to affect the intertidal or marine areas (i.e. airborne pollutant deposition) intertidal habitat has been included within the marine baseline for completeness.

1.6.4 Owing to the long timescales associated with the Proposed Works, the consideration of the Care and Maintenance and Final Site Clerance phases has been at a high-level given the uncertainties in further advances in technology.

2 Legislative Framework

2.1.1 As part of the assessment of a proposed project it is necessary to consider whether the project is likely to have a likely significant effect (LSE) on areas that have been previously internationally designated for nature conservation purposes (i.e. Habitats Sites', formerly known as European Sites.

2.1.2 Should it be found that significant effects are likely, an 'Appropriate Assessment' should then be carried out in order to further assess those impacts. **Plate 1** sets out the legislative basis for an Appropriate Assessment. Consent may only be given for a proposed project if, following assessment, it is established that it will not adversely affect the integrity of the designated site. Appropriate Assessment is outside of the scope of this report.

2.1.3 If adverse effects on integrity are identified, alternatives should be considered to avoid those effects. However, where no alternative solution exists and so an adverse effect remains, a further assessment should be made of whether the project is required for imperative reasons of overriding public interest (IROPI). If the project meets that IROPI test, compensatory measures will be required in order to maintain the overall national site network.

2.1.4 The need for an Appropriate Assessment is set out in the Conservation of Habitats and Species Regulations 2017 (as amended) (the 2017 Regulations). The 2017 Regulations also apply the precautionary principle[8] to Habitats Sites.

2.1.5 Over the years, the phrase ‘Habitats Regulations Assessment’ has come into wide currency to describe the overall process set out in the 2017 Regulations, from the screening for LSEs through to identification of IROPI. This has arisen in order to distinguish the overall process from the individual stage of "Appropriate Assessment". Throughout this Report the term HRA is used for the overall process and restricts the use of Appropriate Assessment to the specific stage of that name.

[8] The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as:
“When human activities may lead to morally unacceptable harm [to the environment] that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis”.

Conservation of Habitats and Species Regulations 2017 (as amended)

Regulation 63 of the 2017 Regulations states that:

"A competent authority, before deciding to … give any consent for a plan or project which is likely to have a significant effect on a European site … must make an appropriate assessment of the implications for the plan or project in view of that site's conservation objectives… The competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site."

Plate 1. The Legislative basis for Appropriate Assessment

2.1.6 Since the Proposed Works are not directly connected with, or necessary to, the management of any part of the Habitats Sites, the first step in the process required by the regulations is to determine whether the Proposed Works are likely to have a significant effect on any SAC, SPA or Ramsar site. That is the purpose of this document.

3 Assessment Methodology

3.1 Introduction

3.1.1 This Preliminary HRA Screening Report has been carried out with reference to the general EC guidance on HRA[9] and guidance on HRA published by the UK government in 2021[10].

3.1.2 The UK left the EU on 31 January 2020 under the terms set out in the European Union (Withdrawal Agreement) Act 2020 ("the Withdrawal Act"). The transition period ended on 31 December 2020. However, the Withdrawal Act also retains the body of existing EU-derived law within our domestic law. Updates to the Conservation of Habitats and Species Regulations 2019 (as amended) make it clear that the HRA process continues despite Brexit.

3.1.3 As such this assessment of LSEs takes account of relevant EU case law (for instance, the Holohan and People over Wind cases, discussed below). **Plate 2** below outlines the stages of HRA for projects and each stage covered by this report is discussed below.

[9] European Commission, 2001. Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Accessed 04/08/2022 via: Assessment of plans and projects significantly affecting Natura 2000 sites (europa.eu)

[10] Department for Levelling Up, Housing and Communities, 2021. Guidance: Habitats Regulations Assessments: Protecting a European site. Accessed 24/03/2021 via: Habitats regulations assessments: protecting a European site - GOV.UK (www.gov.uk)

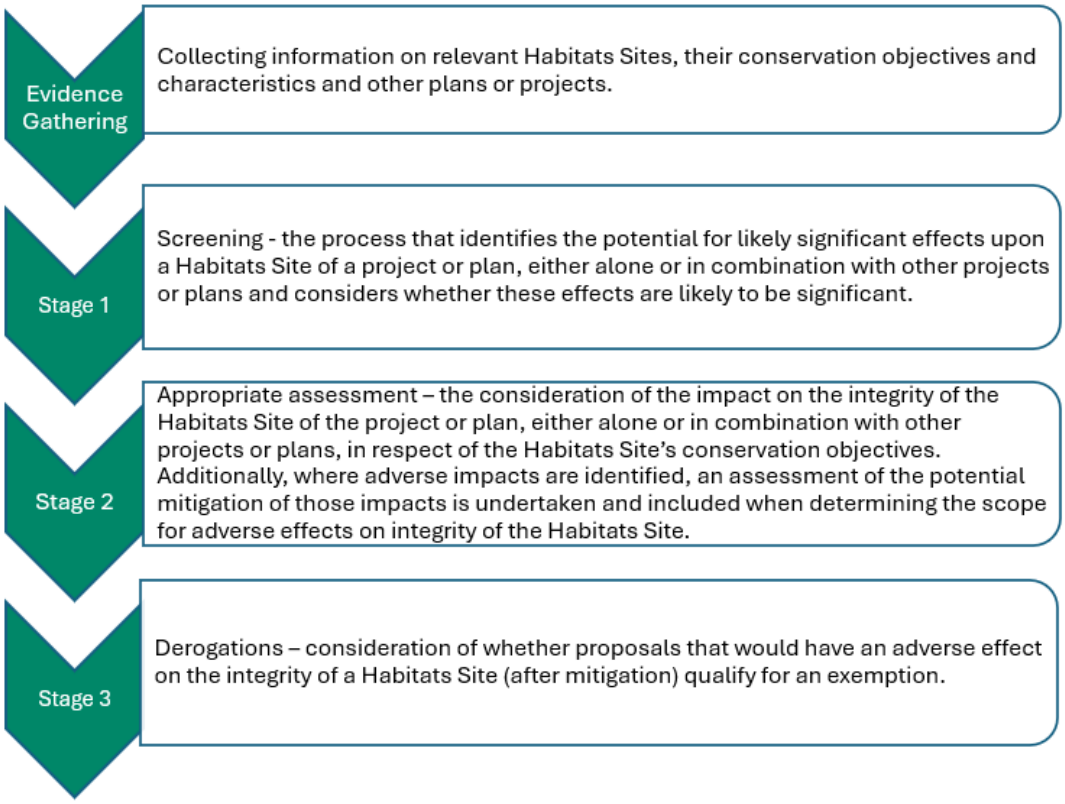

Plate 2. Four Stage approach to Habitats Regulations Assessments of Projects

3.2 HRA Stage 1 – Screening for Likely Significant Effects

3.2.1 This Report presents the Applicant's Preliminary HRA Stage 1 assessment.

3.2.2 The objective of the LSE test is to 'screen out' those aspects of a project that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon Habitats Sites, usually because there is no mechanism for an adverse interaction (i.e. a pathway) with Habitats Sites. The remaining aspects are then taken forward to Appropriate Assessment. The assessment must consider the potential for effects 'in combination' with other plans and projects.

3.2.3 This report has been prepared having regard to all relevant case law relating to the 2017 Regulations, the Habitats Directive and Birds Directive. This includes the ruling by the Court of Justice of the European Union (CJEU) in the case of People Over Wind, Peter Sweetman v Coillte Teoranta (C-323/17)[11]. This case held that; "*it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site*" (paragraph 40). This establishes that 'mitigation measures' specifically introduced to protect Habitats Sites

[11] CJEU, 2018. Judgement of the Court (Seventh Chamber) of 12 April 2018. People Over Wind and Peter Sweetman v Coillte Teoranta (C-323/17). Accessed 04/08/2022 via: People Over Wind & Sweetman v Coillte Teoranta C-323/17 (europa.eu)

cannot be taken into account at the screening stage, but they can be taken into account in an Appropriate Assessment.

3.2.4 However, this ruling has since been qualified by the UK courts. On 15 August 2018, in the case of Langton[12], the High Court ruled that conditions on badger cull licences preventing badger culling near a Special Protection Area or at certain times of year should not be classed as mitigation measures as described in the Sweetman ruling. The judge ruled that these licence conditions were properly characterised as "integral features of the project" and could therefore be relied on for the purposes of habitats screening. His reasoning was that it would be "*contrary to common sense for Natural England to assume that culling would take place at times and places where the applicants did not propose to do so"*. Therefore, restrictions on the *timing* of works which are part of the proponent's proposal can be taken into account in HRA Stage 1 – Screening for LSEs.

3.2.5 In addition, case law has established that it is also permissible to take 'mitigation' measures into account if they would need to be introduced even if there were no Habitats Sites present, in order to comply with other legal drivers or are otherwise embedded in the project. For example, it is illegal to pollute watercourses under the Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and the Environmental Permitting (England and Wales) Regulations 2016. Therefore, mitigation measures to protect water quality are routine whether or not the waterbodies in question are part of, or connected to, Habitats Sites.

3.2.6 This assessment covers all potential impact pathways connecting the Proposed Works and a Habitats Site. These impact pathways are identified (from site improvement plans and using professional judgement) as:

- Atmospheric Pollution (emissions to air):
  - Construction related;
  - Site clearance related; and
  - Traffic related (all phases).
- Inappropriate water levels,
- Noise disturbance:
  - Site clearance related (human activity);
  - Construction related (human activity); and
  - Traffic related (all phases).
- Visual disturbance (including lighting):
  - Site clearance related (human activity); and
  - Construction related (human activity).
- Water pollution;

[12] England & Wales High Court, 2018. Langton, R (on the Application of) v Secretary of State for Environment, Food and Rural Affairs & Anor. Accessed 04/08/2022 via: Langton, R (On the Application Of) v Secretary Of State For Environment, Food And Rural Affairs & Anor (bailii.org)

- Habitat Loss;
- Changes in species distribution;
- Invasive species;
- Coastal squeeze; and
- Loss of functionally linked habitat.

Future Stages of the HRA

3.2.7 The following subsections describe Stages 2 and 3 of the HRA process, including when they are required.

HRA Stage 2: Appropriate Assessment (AA)

3.2.8 Where it is determined that a conclusion of 'no likely significant effect' cannot be drawn, the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'Appropriate Assessment' is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to Appropriate Assessment rather than determination of likely significant effects. It literally means '*whatever level of further assessment is appropriate to form a conclusion regarding effects on the integrity of relevant European sites'.*

3.2.9 In 2018 the Holohan ruling[13] handed down by the European Court of Justice included among other provisions paragraph 39 of the ruling stating that '*As regards other habitat types or species, which are present on the site, but for which that site has not been listed, and with respect to habitat types and species located outside that site, … typical habitats or species must be included in the appropriate assessment, if they are necessary to the conservation of the habitat types and species listed for the protected area'* [emphasis added].

3.2.10 During July 2019 the Department for Levelling Up, Housing and Communities (DLHC) published guidance for Appropriate Assessment (Department for Levelling Up, Housing and Communities, 2019)[14].

3.2.11 Paragraph: 001 Reference ID: 65-001-20190722 explains: 'Where the potential for likely significant effects cannot be excluded, a competent authority must make an appropriate assessment of the implications of the plan or project for that site, in view of the site's conservation objectives. The competent authority may agree to the plan or project only after having ruled out adverse effects on the integrity of the Habitats Site. Where an adverse effect on the site's integrity cannot be ruled out, and where there are no alternative solutions, the plan or project can only proceed if there are imperative reasons of over-riding public interest and if the necessary compensatory measures can be secured'.

3.2.12 One of the key considerations during Appropriate Assessment is whether there is available mitigation that would address the potential effect. In

[13] Case C-461/17
[14] Available at: https://www.gov.uk/guidance/appropriate-assessment

evaluating significance, AECOM will rely on professional judgement as well as the results of bespoke studies, supported by appropriate evidence/data within this assessment.

3.2.13 Appropriate assessment is not within the scope of this report.

HRA Stage 3 – Derogation

3.2.14 HRA Stage 3 includes a number of tests which must be met in order to permit a plan or project to proceed even if it will have an adverse effect on the integrity of a European site. These are:

- that there are no feasible alternative solutions;
- that there are imperative reasons of overriding public interest (IROPI) to justify the plan or project plan or project, and
- that appropriate compensatory measures can be secured to compensate for the adverse effects and ensure the overall coherence of the European site network is protected.

3.2.15 Derogation is not within the scope of this report.

3.3 In-combination Scope

3.3.1 It is a requirement of the Regulations that the impacts of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the Habitats Site(s) in question.

3.3.2 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e., to ensure that those projects or plans (which in themselves may have minor impacts) are not simply dismissed on that basis but are evaluated for any cumulative contribution that they might make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when The Project would otherwise be screened out because its individual contribution is inconsequential. The overall approach is to exclude the risk of there being unassessed likely significant effects in accordance with the precautionary principle. This was first established in the seminal Waddenzee[15] case.

3.3.3 It should be noted that, while the broad potential impacts of these other projects have been considered, this assessment does not undertake full HRA on each of these plans. Instead, existing HRAs that have been carried out for surrounding authorities and plans were drawn upon.

3.4 The Rochdale Envelope

3.4.1 The Rochdale Envelope is applicable where some of the details of a project have not been confirmed when an application is submitted, and flexibility is sought to address uncertainty. Notwithstanding this, all significant potential effects of a project must be properly addressed.

3.4.2 It encompasses three key principles:

[15] Waddenzee case (Case C-127/02, [2004] ECR-I 7405)

- the assessment should use a cautious worst-case approach;
- the level of information assessed should be sufficient to enable the LSE of a project to be assessed; and
- the allowance for flexibility should not be abused to provide in adequate descriptions of projects.

3.4.3 This Preliminary HRA Screening Report has given due consideration to the Rochdale Envelope in the screening process for LSE. The worst-case (i.e., the potentially most impactful) construction, decommissioning and operational scenarios have been assessed in relation to impact pathways.

4 Relevant Habitats Sites

4.1.1 A 15km buffer has been used to initially identify Habitats Sites of relevance to the Proposed Works. Further consideration was given to impact pathways which may connect the Proposed Works to a Habitats Site at a greater distance than this, e.g. works in the marine environment which may have the potential to affect mobile species listed as qualifying features on another SAC such as the Southern North Sea SAC.

4.1.2 It has been determined that the Habitats Sites identified in **Table 4-1** require consideration. Additional background information for these Habitats Sites is provided in **Annex A**. The relevant Site Improvement Plan should be viewed for further information on the detailed of the identified Environmental Vulnerabilities.

4.1.3 Although the Dungeness B NSL is not itself designated, it is surrounded by the Habitats Sites referenced in **Table 4-1**. Distances given are the approximate distances from the Works Area to the Habitats Sites.

Table 4-1 Habitats Sites potentially linked to the Proposed Works

Site Name/Designation	Environmental Vulnerabilities identified on Site Improvement Plan, Supplementary Advice on Conservation Objectives, or JNCC Conservation Objectives and Advice on Operations document	Distance and direction from the Works Area
Dungeness SAC	Military, Vehicles: Illicit, Predation, Changes in Species Distribution*, Invasive species*, Inappropriate scrub control, Air pollution: impact of atmospheric nitrogen deposition* Inappropriate water levels*, Coastal squeeze*, and Water pollution*.	61m from Area A 8m from Area B Areas C is within the Dungeness SAC 56m from Area D

Site Name/Designation	Environmental Vulnerabilities identified on Site Improvement Plan, Supplementary Advice on Conservation Objectives, or JNCC Conservation Objectives and Advice on Operations document	Distance and direction from the Works Area
Dungeness, Romney Marsh and Rye Bay SPA	As specified above for the SAC	53m from Area A 342m from Area B Areas C is within the Dungeness, Romney Marsh and Rye Bay SPA Areas D is within the Dungeness, Romney Marsh and Rye Bay SPA
Dungeness, Romney Marsh and Rye Bay Ramsar	.As specified above for the SAC	449m from Area A 698m from Area B Areas C is within the Dungeness, Romney Marsh and Rye Bay Ramsar 6m from Area D
Southern North Sea SAC	Removal of non-target species (bycatch of harbour porpoise) Contaminants Underwater sound Death by injury or collision Reduction in prey from commercial fishing	Approximately 52km south west of SAC
The Wash and North Norfolk Coast SAC	Above water noise Visual disturbance Physical change Underwater noise Below water collision	Approximately 213km south west of SAC
Humber Estuary SAC	Above water noise Visual disturbance Physical change Underwater noise Below water collision	Approximately 283km south west of SAC

* an asterisk has been used to denote where a vulnerability is considered relevant to the Proposed Works

4.1.4 The Habitats Sites and their reasons for designation are set out in **Table 4-2** below.

Table 4-2 Habitats Sites and the reasons for their designation

Site Name/Designation	Reason for Designation
Dungeness SAC	The qualifying features of the SAC[16] are: H1210 Annual vegetation of drift lines

[16] Available at https://publications.naturalengland.org.uk/file/6607674816856064 [Accessed 17/10/2025]

Site Name/Designation	Reason for Designation
	H1220 Perennial vegetation of stony banks (Coastal shingle vegetation outside of the reach of waves) S1166 Great Crested Newt (*Triturus cristatus*)
Dungeness, Romney Marsh and Rye Bay SPA	The site qualifies under Article 4.1 of the Directive (2009/147/EC): Common tern *Sterna hirundo* Sandwich tern *Sterna sandvicensis* Avocet *Recurvirostra avosetta* Bewick's swan *Cygnus columbianus bewickii* Bittern *Botaurus stellaris* Hen harrier *Circus cyaneus* Golden plover *Pluvialis apricaria* Little tern *Sternula albifrons* Ruff *Calidris pugnax* Aquatic warbler *Acrocephalus paludicola* Marsh harrier *Circus aeruginosus* Mediterranean Gull *Larus melanocephalus* Shoveler *Anas clypeata* The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it is regularly used by over 20,000 waterbirds in any season.
Dungeness, Romney Marsh and Rye Bay Ramsar	<u>Criterion 1</u> Contains representative, rare, or unique examples of natural or near-natural wetland types. These include: Annual vegetation of drift lines and the coastal fringes of perennial vegetation of stony banks (Ramsar wetland type E – sand, shingle or pebble shores). <u>Criterion 2</u> Supports several vulnerable, endangered or critically endangered species. These include: Warne's thread-moss *Bryum warneum* Water vole *Arvicola amphibius* Aquatic warbler *Acrocephalus paludicola* Great crested newt *Triturus cristatus* Medicinal leech *Hirudo medicinalis* A ground beetle *Omophron limbatum* Marsh mallow moth *Hydraecia osseola hucherardi* De Folin's lagoon snail *Caecum amoricum* <u>Criterion 5</u> In the non-breeding season, the site regularly supports 34,957 individual waterbirds (5-year peak mean 2002/3-2006/7). <u>Criterion 6</u> The site qualifies under Criterion 6 because it regularly supports 1.1% of the British population of Mute swan *Cygnus olor* 1.2% of the NW and C European non-breeding population of Shoveler *Spatula clypeata.*
Southern North Sea SAC	Harbour porpoise (*Phocoena phocoena*)
The Wash and North Norfolk Coast SAC	Annex I habitats that are a primary reason for selection of this site:

Site Name/Designation	Reason for Designation
	Sandbanks which are slightly covered by sea water all the time Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays Reefs Salicornia and other annuals colonizing mud and sand Atlantic salt meadows Mediterranean and thermos-Atlantic scrubs (Sarcocornetea fruticose) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: Coastal lagoons Annex II species that are a primary reason for selection of this site: Harbour seal (*Phoca vitulina*)
Humber Estuary SAC	Annex I habitats that are a primary reason for selection of this site: Estuaries Mudflats and sandflats not covered by seawater at low tide Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: Sandbanks which are slightly covered by sea water all the time Coastal lagoons Salicornia and other annuals colonizing mud and sand Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila *arenaria* (“white dunes”) Fixed coastal dunes with herbaceous vegetation (“grey dunes”) Dunes with *Hippophae rhamnoides* Annex II species that are a primary reason for selection of this site: Sea lamprey (*Petromyzon marinus*) River lamprey (*Lampetra fluviatilis*) Grey seal (*Halichoerus grypus*)

5 Baseline Surveys and Sources of Data

5.1.1 The UK’s Habitats Regulations require assessments to be based on the “best scientific knowledge” and use data from authoritative sources to determine the potential effects of plans or projects on protected Habitats Sites. **Table 5-1** below outlines the sources of information that were consulted as part of this assessment.

Table 5-1 Data sources used in this HRA

Data source	Data obtained
Multi-Agency Geographic Information for the Countryside (MAGIC) website[17]	Habitats Sites within 15km of the Works Area
Conservation Advice for National sites[18] [19]	Conservation Advice for National sites[20] [21]
EDF Dungeness Land Management Annual Reviews between 2015 and 2023[22]	Records from monitoring visits for various habitats and species within the EDF Dungeness landholding
Discussions and personal communication with the Romney Marsh Countryside Service	Information in respect of the potential for great crested newt and medicinal leech
Discussion and personal communication with the Dungeness Bird Observatory (DBO)	Information in respect of recent bird survey undertaken by the DBO

[17] Department for Environment, Food and Rural Affairs (DEFRA) Multi-Agency Geographic Information for the Countryside. Available at http://magic.defra.gov.uk/MagicMap.aspx Accessed 07/11/2025

[18] Natural England (2025) Conservation Advice for Protected Sites: Dungeness SAC, Available at: https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0013059&SiteName=Dungeness&SiteNameDisplay=Dungeness%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=Dungeness%20SAC. Accessed 28/11/2025

[19] Natural England (2025) Conservation Advice for Protected Sites: Dungeness, Romney Marsh and Rye Bay SPA. Available at: https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9012091&SiteName=Dungeness&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=13&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA Accessed 28/11/2025

[20] Natural England (2025) Conservation Advice for Protected Sites: Dungeness SAC, Available at: https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0013059&SiteName=Dungeness&SiteNameDisplay=Dungeness%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=Dungeness%20SAC. Accessed 28/11/2025

[21] Natural England (2025) Conservation Advice for Protected Sites: Dungeness, Romney Marsh and Rye Bay SPA. Available at: https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9012091&SiteName=Dungeness&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=13&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA Accessed 28/11/2025

[22] (2015) Dungeness Annual Land Management Review 2015, (2016) Dungeness Annual Land Management Review 2016, (2017) Dungeness Annual Land Management Review 2017, (2018) Dungeness Annual Land Management Review 2018, (2019) Dungeness Annual Land Management Review 2019, (2020) Dungeness Annual Land Management Review 2020, (2021) Dungeness Annual Land Management Review 2021, (2022) Dungeness Annual Land Management Review 2022 and (2023) Dungeness Annual Land Management Review 2023,

Data source	Data obtained
AECOM tern surveys	High tide counts for terns were undertaken twice a month between May 2025 and August 2025.
AECOM great crested newt survey 2025	eDNA results from the Long Pits
AECOM UKHab 2023	A UK Habitat Classification survey to classify the habitats within a 50m buffer of the Works Area
Coull, K. A., Johnstone, R. and Rogers, S. I. (1998). [23]	Fisheries Sensitivity Maps
International Council for the Exploration of the Seas (ICES)[24]	Greater North Sea Ecoregion reviews
Ellis, J., Milligan, S., Readdy, L., Taylor, N. and Brown, M. (2012)[25]	Spawning and nursery grounds of selected fish species
European Marine Observation Data Network[26]	Seabed Habitats Project data
European Union Nature Identification System[27]	Classification of benthic habitats

6 Test of Likely Significant Effects - Terrestrial Activities

6.1 Introduction

6.1.1 The following pathways have been identified for the test of likely significant effects in the terrestrial environment:

- Atmospheric Pollution (emissions to air):
  - Construction related,
  - Site clearance related,
  - Traffic related (all phases).
- Inappropriate water levels,
- Noise disturbance:

[23] Coull, K. A., Johnstone, R. and Rogers, S. I. (1998). Fisheries Sensitivity Maps in British Waters. UKOOA Ltd.
[24] ICES. (2025). Ecosystem Overviews – Greater North Sea Ecoregion. Ecosystem components: Marine mammals. (Online). Available at: https://www.ices.dk/advice/ESD/Pages/Greater-North-Sea-Marine-mammals.aspx
[25] Ellis, J., Milligan, S., Readdy, L., Taylor, N. and Brown, M. (2012). Spawning and nursery grounds of selected fish species in UK waters. Cefas.
[26] European Marine Observation Data Network (EMODnet) Seabed Habitats Project data for broad-scale habitat maps of the Study Area
[27] European Union Nature Identification System (EUNIS) for classifying benthic habitats

  - Site clearance related (human activity),
  - Construction related (human activity)
  - Traffic related (all phases).
- Visual disturbance (including lighting):
  - Site clearance related (human activity)
  - Construction related (human activity).
- Water pollution;
- Habitat Loss;
- Changes in species distribution;
- Invasive species;
- Coastal squeeze; and
- Loss of functionally linked habitat.

6.1.2 The following pathways have been discounted from the test of likely significant effects as there is no feasible impact pathway linking the Proposed Works to any of the identified sites:

- Military,
- Vehicles: Illicit,
- Predation,
- Inappropriate scrub control.

6.2 Atmospheric pollution

Dust

6.2.1 Operation of plant and machinery and the methods of dismantling/deconstruction employed during the Proposed Works have the potential to increase local dust levels with knock-on effects on ecological receptors. Dust deposition is of particular concern for plants, due to its direct interference with gaseous exchange by blocking stomata. In addition, any dust suspended in the water column of aquatic habitats may also affect the turbidity, temperature and other water quality parameters. This can trigger changes in aquatic community composition and also affect the ability of bird species to feed, many of which are visual foragers.

6.2.2 IAQM guidance[28] identifies that significant dust soiling can arise on ecological receptors located within 50m of construction sites. Natural England has previously suggested a more precautionary zone of 200m should be used for HRA purposes. That larger 200m zone has therefore

[28] Institute of Air Quality Management. (2024). Guidance on the Assessment of Dust from Deconstruction and Construction. Version 2.2 Available at https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf [Accessed 19/06/2025]

been used in this HRA due to the sensitivity of habitats such as vegetated shingle.

6.2.3 With the exception of the works in respect of the outfall and intake pipes (including the back-up cooling water supply infrastructure), the Works Area comprises existing hard standing, within and close to the original Dungeness Site B footprint. Access will utilise the existing access road for Dungeness B. The Initial Decommissioning Works include both construction works including enabling works for waste processing, and construction of a Safestore for the reactors. It also includes initial decommissioning works, including deplanting and deconstruction of redundant buildings and infrastructure.

6.2.4 However, there remains the potential for deposition of dust on sensitive habitats in the absence of mitigation measures.

6.2.5 Appropriate construction measures identified by the Institute of Air Quality Management to reduce dust deposition will be set out in detailed Dust Management Plan(s) which will prevent impacts from dust on the Habitats Sites. These measures will be reviewed at Appropriate Assessment stage.

6.2.6 It can therefore be concluded that likely significant effects from dust cannot be screened out alone and in combination with other plans or projects. This impact pathway is taken forward for Appropriate Assessment for all phases of the Proposed Works.

Atmospheric pollution associated with vehicular movements

6.2.7 The main exhaust pollutants of concern for Habitats Sites are oxides of nitrogen (NOx), ammonia (NH3) and sulphur dioxide (SO2), and dust. These are summarised in **Table 6-1**. Ammonia can have a directly toxic effect upon vegetation, particularly at close distances to the source such as near road verges[29]. NOx can also be toxic at very high concentrations (far above the annual average Critical Level). High levels of NOx and NH3 are likely to increase the total nitrogen (N) deposition to soils, potentially leading to deleterious knock-on effects in resident ecosystems. Increases in nitrogen deposition from the atmosphere can, if sufficiently great, enhance soil fertility and lead to eutrophication. This often has adverse effects on the community composition and quality of semi-natural, nitrogen-limited terrestrial and aquatic habitats30 [31].

[29] http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm.
[30] Wolseley, P. A.; James, P. W.; Theobald, M. R.; Sutton, M. A. (2006). Detecting changes in epiphytic lichen communities at sites affected by atmospheric ammonia from agricultural sources. *Lichenologist* **38**: 161-176.
[31] Dijk, N. (2011). Dry deposition of ammonia gas drives species change faster than wet deposition of ammonium ions: evidence from a long-term field manipulation. *Global Change Biology* **17**: 3589-3607.

Table 6-1 Main sources and effects of air pollutants on habitats and species [32]

Pollutant	Source	Effects on habitats and species
Sulphur Dioxide (SO_2)	The main sources of SO_2 are electricity generation, and industrial and domestic fuel combustion. However, total SO_2 emissions in the UK have decreased substantially since the 1980's. Another origin of sulphur dioxide is the shipping industry and high atmospheric concentrations of SO_2 have been documented in busy ports. In future years shipping is likely to become one of the most important contributors to SO_2 emissions in the UK.	Wet and dry deposition of SO_2 acidifies soils and freshwater and may alter the composition of plant and animal communities. The magnitude of effects depends on levels of deposition, the buffering capacity of soils and the sensitivity of impacted species. However, SO_2 background levels have fallen considerably since the 1980's and are now not regarded as a threat to plant communities. For example, decreases in Sulphur dioxide concentrations have been linked to returning lichen species and improved tree health in London.
Acid deposition	Leads to acidification of soils and freshwater via atmospheric deposition of SO_2, Nox, ammonia, and hydrochloric acid. Acid deposition from rain has declined by 85% in the last 20 years, which most of this contributed by lower sulphate levels.	Gaseous precursors (e.g. SO_2) can cause direct damage to sensitive vegetation, such as lichen, upon deposition. It can affect habitats and species through both wet (acid rain) and dry deposition. The effects of acidification include lowering of soil pH, leaf chlorosis, reduced decomposition rates, and compromised reproduction in birds / plants. Not all sites are equally susceptible to acidification. This varies depending on soil type, bed rock geology, weathering rate and buffering capacity. For example, sites with an underlying geology of granite, gneiss and quartz rich rocks tend to be more susceptible.
Ammonia (NH_3)	Ammonia is a reactive, soluble alkaline gas that is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but ammonia concentrations are directly related to the distribution of livestock and also emits from some industrial processes and some vehicle exhausts. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+) – containing aerosol. Due to its significantly longer lifetime, NH_4+ may be transferred much longer distances (and can therefore be a significant trans-boundary issue). While ammonia deposition may be estimated from its atmospheric concentration, the deposition rates	The negative effect of NH_4+ may occur via direct toxicity, when uptake exceeds detoxification capacity and via nitrogen accumulation. Its main adverse effect is eutrophication, leading to species assemblages that are dominated by fast-growing and tall species. For example, a shift in dominance from heath species (lichens, mosses) to grasses is often seen. As emissions mostly occur at ground level in the rural environment and NH_3 is rapidly deposited, some of the most acute problems of NH_3 deposition are for small relict nature reserves located in intensive agricultural landscapes.

[32] Information summarised from the Air Pollution Information System (http://www.apis.ac.uk/).

Pollutant	Source	Effects on habitats and species
	are strongly influenced by meteorology and ecosystem type.	
Nitrogen oxides (NO_x)	Nitrogen oxides are mostly produced in combustion processes. Half of NO_X emissions in the UK derive from motor vehicles, one quarter from power stations and the rest from other industrial and domestic combustion processes. NOx concentrations have been falling for decades due to improvements in vehicle emissions technology, and this will accelerate after 2035 as electric vehicles (or other non-combustion engine vehicles) spread through the vehicle fleet following the Government's ban on the sale of new petrol and diesel cars and vans in 2035.	Direct toxicity effects of gaseous nitrates are likely to be important in areas close to the source (e.g. roadside verges). A critical level of Nox for all vegetation types has been set to 30 ug/m3. Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) contributes to the total nitrogen deposition and may lead to both soil and freshwater acidification. In addition, NO_x contributes to the eutrophication of soils and water, altering the species composition of plant communities at the expense of sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to the total nitrogen deposition derive mainly from oxidized (e.g. NO_X) or reduced (e.g. NH_3) nitrogen emissions (described separately above). While oxidized nitrogen mainly originates from major conurbations or highways, reduced nitrogen mostly derives from farming practices. The nitrogen pollutants together are a large contributor to acidification (see above).	All plants require nitrogen compounds to grow, but too much overall N is regarded as the major driver of biodiversity change globally. Species-rich plant communities with high proportions of slow-growing perennial species and bryophytes are most at risk from nitrogen eutrophication. This is because many semi-natural plants cannot assimilate the surplus nitrogen as well as many graminoid (grass) species. Nitrogen deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O_3)	A secondary pollutant generated by photochemical reactions involving Nox, volatile organic compounds (VOCs) and sunlight. These precursors are mainly released by the combustion of fossil fuels (as discussed above). Increasing anthropogenic emissions of ozone precursors in the UK have led to an increased number of days when ozone levels rise above 40ppb ('episodes' or 'smog'). Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O_3 above 40 ppb can be toxic to both humans and wildlife and can affect buildings. High O_3 concentrations are widely documented to cause damage to vegetation, including visible leaf damage, reduction in floral biomass, reduction in crop yield (e.g. cereal grains, tomato, potato), reduction in the number of flowers, decrease in forest production and altered species composition in semi-natural plant communities.
Dust	Deterioration in air quality due to dust from vehicles/plant	Based on the Institute of Air Quality Management (IAQM) guidance dust emissions are most likely to affect ecological receptors within 0.05km of the boundary of the Works Area and the route(s) used by mobile machinery,

Pollutant	Source	Effects on habitats and species
		increasing to 0.25km from the site entrance for mobile machinery on the public highway. Dust can impact both habitats and species. Dust may affect photosynthesis, transpiration and respiration in plants, cause physical damage and allow greater penetration of phytotoxic gaseous pollutants. This can result in changes in species distribution or productivity. Dust can affect animals through habitat degradation, contamination of food sources, changes in behaviour, and respiratory or skin problems. The predicted change in traffic levels attributable to the Proposed Works is negligible.

6.2.8 Sulphur dioxide emissions overwhelmingly derive from power stations and industrial processes that require the combustion of coal and oil, as well as (particularly on a local scale) shipping[33]. As such these will not be associated with the Proposed Works. Ammonia emissions originate from agricultural practices[34], with some chemical processes also making notable contributions and traffic also contributing materially at a local scale. NOx emissions are dominated by the output of vehicle exhausts (more than half of all emissions).

6.2.9 The World Health Organisation has the following critical thresholds for plant communities: The critical NOx concentration (critical level) for the protection of vegetation is 30µgm^{-3} and the critical level for ammonia 1-3µgm^{-3} (depending on whether vegetation or lichens and bryophytes are relevant). Additionally, ecological studies have determined 'Critical Loads'[35] of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH3).

6.2.10 According to the Department of Transport's Transport Analysis Guidance, beyond 200m, the contribution of vehicle emissions from the roads to local pollution levels is insignificant (**Plate 3** and reference[36]). Therefore, this distance has been used throughout this HRA to determine whether LSEs on sensitive Habitats Sites may arise due to implementation of the Plan.

[33] http://www.apis.ac.uk/overview/pollutants/overview_SO2.htm.
[34] Pain, B.F.; Weerden, T.J.; Chambers, B.J.; Phillips, V.R.; Jarvis, S.C. (1998). A new inventory for ammonia emissions from U.K. agriculture. *Atmospheric Environment* **32**: 309-313.
[35] The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur.
[36] Available at: http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013 [Accessed 25/02/2025]

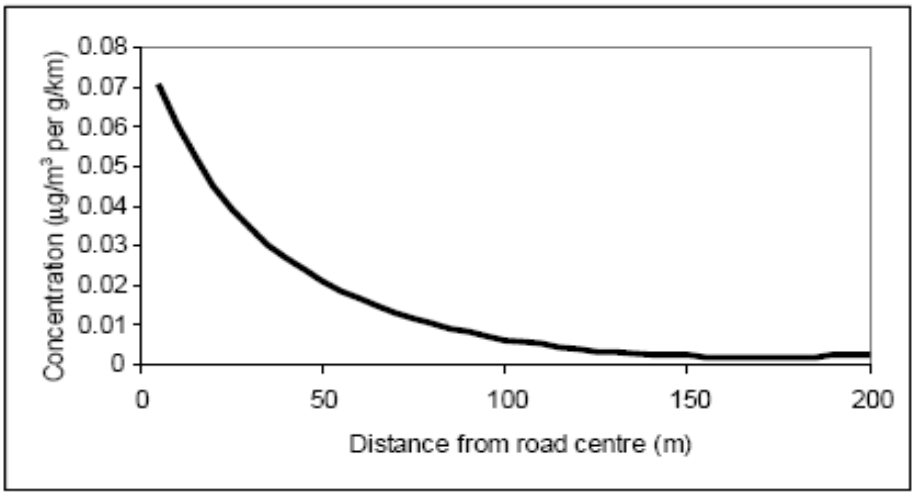

Plate 3: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT[37])

Initial Decommissioning Works

6.2.11 Guidance from the IAQM and Highways England both set an impact zone of 200m from the roadside for potential significant air quality effects to vegetation from road traffic. Routes to the Works Area are all within this impact zone of the following Habitats Sites:

- Dungeness, Romney Marsh and Rye Bay SPA;
- Dungeness, Romney Marsh and Rye Bay Ramsar; and
- Dungeness Special Area of Conservation.

6.2.12 According to the APIS application[38] Current baseline NOx levels in the area of the SAC range from 8.4 to 11.2µg/m^3; the habitats within the SAC have a maximum critical load of 30µg/m^3 before vegetation is considered to be at risk.

6.2.13 According to IAQM guidance[39] (with reference to the Highways Agency Design Manual for Roads and Bridges) an initial screening criteria of 200 Annual Average Daily Traffic Heavy Duty Vehicles (HDV) can be used for initial HRA screening. For this project at preliminary HRA screening stage, the Preparations for Quiescence phase reported in the Hunterston B Environmental Statement (equivalent to the project's Indicative Dismantling Works) is used as a representative worst-case comparator. The Hunterston B ES identifies a peak daily HDV demand of up to 24 two-way HGV movements during this phase, which is substantially below the 200-HDV AADT screening criterion.

[37] Available at: http://www.dft.gov.uk/ha/standards/dmrb/vol11/section3/ha20707.pdf [Accessed 25/02/2025]
[38] Available at www.apis.ac.uk/app [Accessed 25/05/2025]
[39] A guide to the assessment of air quality impacts on designated nature conservation sites (2020) Available at: https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf [Accessed 19/06/2024]

6.2.14 It can, therefore, be concluded that likely significant effects for air quality (Nitrogen Deposition) during the Initial Decommissioning Works will not arise on the Dungeness SAC, and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and these can be screened out from appropriate assessment.

Care and Maintenance

6.2.15 During this phase, activities would be limited to optimised surveillance, maintenance of the Safestore, security arrangements and site services. As such, vehicular traffic will be less than the anticipated average of 48 HDV predicted for Initial Decommissioning Works. As such, the threshold above will not be exceeded.

6.2.16 It can, therefore, be concluded that likely significant effects for air quality (Nitrogen Deposition) during the Care and Maintenance phase will not arise on the Dungeness SAC, and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and these can be screened out from appropriate assessment.

Final Site Clearance

6.2.17 Final site clearance would take place over a ten-year period. Vehicular movements are unknown at present but have the potential to be higher than those of the Initial Decommissioning Works. Whilst they are unlikely to exceed the screening criteria of Annual Average Daily Traffic 200 Heavy Duty Vehicles, this uncertainty and the potential for Likely Significant Effects has been screened in for further assessment.

6.2.18 Dungeness A is currently in the process of being decommissioned. This station has been defueled and is currently in the decommissioning phase. This involves a 30 two way HGV (60), significantly below those which would exceed the threshold identified above. Given the relative isolation of the Dungeness Habitats Sites, none of the other plans or projects identified in **Appendix B** considered for in-combination effects would make use of the road network at or near Dungeness. None of the other plans of projects considered for in-combination effects and would result in significant atmospheric pollution in the 200m impact zone.

6.2.19 Individual projects related to the decommissioning will be assessed as they are brought forward. It is therefore necessary for each HRA to consider the cumulative position across both Dungeness A and Dungeness B sites. This includes assessing the overall traffic entering and leaving the combined Dungeness estate and confirming the total expected traffic levels to ensure that agreed limits are not breached.

6.3 Inappropriate water levels

6.3.1 The Site Improvement Plan (SIP)[40] for Dungeness records inappropriate water levels as a threat for a number of bird species and great crested

[40] Available at: https://publications.naturalengland.org.uk/file/5885279032311808 [Accessed 28/05/2025]

newts, with a measure to review the water level management plan for Romney Marsh and Denge Marsh. The SIP explains:

"*Water levels across the grazing marsh areas potentially impact habitats supporting birds using the site. Feeding and roosting areas in winter. Breeding areas for waders, reedbed birds and sea birds. Infrastructure to help manage water levels in the complex ditch network, including the Royal Military Canal, across the grazing marsh habitat is critical for the fine balance of water levels and movement of water across the site. Great crested newt breeding ponds are scattered across the SAC designation and would be seriously impacted if water levels were reduced to the point of drying out ponds permanently*."

6.3.2 There is already adequate provision of water for hygiene and drinking facilities across Dungeness Site B. The Proposed Works will not have an impact on the overall requirements of the whole site and the requirement for water will likely reduce as the works progress from Initial Decommissioning Works to Care and Maintenance, with a potential increase from the Care and Maintenance to the Final Site Clearance phase, but still below water use during station operation.

6.3.3 The construction and deconstruction works in Areas A and B would be located on existing hard standing will have no impact on water levels through de-watering or changes in groundwater or surface water flow paths. Works in Area C would be localised associated with the dismantling of the back-up cooling water supply pump house only.

6.3.4 Works associated with the dismantling of the back-up cooling water infrastructure would be contained to a small working area within the Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar. These works are unlikely to result in significant changes to the groundwater hydrology,

6.3.5 The natural flow of water from Areas A and B of the Works Area is towards the sea, therefore any increase in water levels or flow as a result of the Proposed Works will dissipate in that direction, and away from inland areas. Impact on areas which support the qualifying features (grazing marsh, The Long Pits), potential great crested newt water bodies and wet ditches can be discounted.

6.3.6 It can therefore be concluded that there are no likely significant effects as a result of inappropriate water levels resulting from the Proposed Work, either alone or in combination, and these can be screened out from appropriate assessment for all phases of the Proposed Works.

6.4 Disturbance

6.4.1 Projects can result in the disturbance of qualifying SPA/Ramsar bird species in Habitats Sites or functionally linked habitats through several mechanisms. Noise and visual disturbance arising from construction activities may result in behavioural changes (e.g. flight from the nest, cessation of foraging) in birds. Furthermore, post-construction disturbance from site usage, road traffic and operational lighting might also arise. Three of the most important factors

determining the magnitude of disturbance appear to be species sensitivity, proximity of the disturbance source and timing / duration of the disturbance. Generally, the most disturbing visual and auditory stimuli are likely to involve irregular, infrequent, unpredictable loud noise events, movements or vibrations. Birds are least likely to be disturbed by activities that involve regular, predictable and quiet patterns of sound or movement. The further any activity is from the birds, the less likely it is to result in disturbance.

Noise disturbance

Construction and deconstruction related noise disturbance impacts

6.4.2 An increasing amount of research on visual and noise disturbance of waterfowl from construction (and other activities) is now available. Both visual and noise stimuli may elicit disturbance responses, potentially affecting the fitness and survival of waterfowl and waders. Noise is a complex disturbance parameter requiring the consideration of multiple parameters, including the fact that it is not described on a linear scale, its nonadditive effect and the source-receptor distance. A high level of noise disturbance constitutes a sudden noise event of over 60dB or prolonged noise of over 72dB[41]. Bird responses to such levels include major flight or the cessation of feeding, both of which might affect the survival of birds if other stressors are present (e.g. cold weather, food scarcity).

6.4.3 The response of birds to noise varies with species. Generally, research has shown that noise levels of above 84dB waterfowl show a flight response, while below 55dB there is no effect on their behaviour[42]. These two thresholds are therefore considered useful as defining two extremes. The same authors have advised that regular noise levels should be below 70dB at the bird, as birds will habituate to noise levels below this level[43]. The Waterbird Disturbance Mitigation Toolkit published by the Institute of Estuarine & Coastal Studies in 2013, summarises the key evidence base relating to the noise disturbance impact pathway[44]. Generally, noise is attenuated by 6dB with every doubling of distance from the source. Significant disturbance is defined by The Agreement on the Conservation of African-Eurasian Migratory Waterbirds[45i] as "*Disturbance should be judged as significant if an action (alone or in combination with other effects) impacts on (water)birds in such a way as to be likely to cause impacts on populations of a species through either:*

- *changed local distribution on a continuing basis; and/or*

[41] Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects Available at https://gat04-live-1517c8a4486c41609369c68f30c8-aa81074.divio-media.org/filer_public/8f/bd/8fbdd7e9-ea6f-4474-869f-ec1e68a9c809/11367.pdf [Accessed 19/06/2025]
[42] Cutts N & Allan J. 1999. Avifaunal Disturbance Assessment. Flood Defence Works: Saltend. Report to Environment Agency).
[43] Cutts, N., Phelps, A. and Burdon, D. 2009. Construction and waterfowl: Defining Sensitivity, Response, Impacts and Guidance. Report to Humber INCA, Institute of Estuarine and Coastal Studies, University of Hull.
[44] The University's research is available at the following link: http://bailey.persona-pi.com/Public-Inquiries/M4%20-%20Revised/11.3.67.pdf.
[45] The Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), 2016

- *changed local abundance on a sustained basis; and/or*
- *the reduction of ability of any significant group of birds to survive, breed, or rear their young*."

6.4.4 The majority of the birds (including waterfowl, waders, raptors and passage warblers) for which the SPA is designated will use suitable inland habitat within the Dungeness NNR for foraging and breeding, including the RSPB Dungeness Reserve and further afield (e.g. in areas of grazing marsh elsewhere in the SPA such as near Rye Harbour). Suitable habitat of this nature is approximately 1.5km from the Works Area at its closest and therefore any construction noise will have attenuated to levels which will not create a significant disturbance event.

6.4.5 The coastal habitats covered by the Ramsar and the SPA offer potential breeding and foraging sites for terns. At the closest point to the Proposed Works in Area A the SPA is marine only (designated for tern foraging habitat) with the closest area inclusive of shoreline broad enough for breeding being 1.6km east (of the Area A Works Area). The Ramsar is approximately 160m away at this point with the closest inland sections In addition, the beach areas can support Mediterranean gull and golden plover.

6.4.6 Wintering bird surveys are ongoing, with surveys completed over the period November 2022 to March 2023, and surveys being undertaken from September 2025 to March 2026. The 2025/26 surveys will comprise:

- One high tide count through the tide (three hours before high tide to three hours after high tide) completed once per month between September 2025 and March 2026, covering the beach area to the south of Dungeness B and 500m to the east and west of Dungeness B;
- One low tide count through the tide (three hours before low tide to three hours after low tide) completed once per month between September 2025 and March 2026, covering the beach area to the south of Dungeness B and 500m to the east and west of Dungeness B; and
- High tide walkover surveys once per month between September 2025 One high tide count through the tide (three hours before high tide to three hours after high tide) completed once per month between September 2025 and March 2026, covering the beach area to the south of Dungeness B and 500m to the east and west of Dungeness B;
- One low tide count through the tide (three hours before low tide to three hours after low tide) completed once per month between September 2025 and March 2026, covering the beach area to the south of Dungeness B and 500m to the east and west of Dungeness B; and
- High tide walkover surveys once per month between September 2025.

6.4.7 The high tide counts, low tide counts and high tide walkover surveys will be repeated in September 2026 to March 2027, if determined to be required following analysis of the data collected during September 2025 to March 2026 and existing background data available from a range of sources.

6.4.8 A passage and breeding bird survey is proposed for March 2026 to August 2026 to collect data on bird activity during the breeding and passage seasons, and to supplement the detailed desk study data on birds.

6.4.9 Black redstart *Phoenicurus ochruros* surveys are proposed for April 2026 to June 2026 to provide up to date data on the presence of this species at Dungeness B.

6.4.10 A tern raft was installed in The Long Pits in 2021. The Proposed Works are adjacent to the Long pits, although the majority of works are located 1.1km southwest of The Long Pits, the tern raft has not been used to date[46].

6.4.11 Noise monitoring will be undertaken during 2026 at appropriate locations, including ecological receptors such as Denge Beach.

6.4.12 LSE in respect of noise disturbance on birds will be reassessed once these surveys have been completed.

6.4.13 Noise associated with the Care and Maintenance phase is predicted to be negligible. It can therefore be concluded that there are no likely significant effects as a result of noise during the Care and Maintenance phase on Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and this can be screened out from appropriate assessment.

6.4.14 Due to the requirement for ongoing ornithological and noise surveys, and the presence of sensitive ecological receptors, it cannot be concluded that there will be no likely significant effects in respect of noise related to construction and deconstruction, and noise has been screened in for further assessment at additional Screening or Appropriate Assessment stage for the Initial Decommissioning Works and Final Clearance phases.

Traffic related noise impacts

6.4.15 The number of vehicular movements during the Initial Decommissioning Works will represent a decrease in overall vehicular movements compared to operational activities, but an increase in HDV movements. These HDV movements, at an anticipated peak of 24 two way a day (48) are therefore not likely to result in an increase in noise levels which could lead to an ecological effect.

6.4.16 The number of vehicular movements associated with the Care and Maintenance phase are predicted to be less than those associated with the ongoing operational activities at Dungeness B.

6.4.17 Final site clearance would take place over a ten-year period. Vehicular movements are unknown at present but have the potential to be higher than those of the Initial Decommissioning Works. The number of vehicular movements associated with the Final Site Clearance are unknown. However, given the 10 year period of works, noise on a daily or weekly basis is not likely to be so significant as to result in LSE.

[46] From communications with the site biodiversity warden and Annual Land Management reviews

6.4.18 It can therefore be concluded that there are no likely significant effects as a result of traffic noise as a result of the Proposed Works on Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and this can be screened out from Appropriate Assessment for all phases of the Proposed Works.

Visual disturbance impacts

6.4.19 Some species of birds are sensitive to visual disturbances such as human presence and the movement of vehicles. The concern regarding the effects of visual disturbance on birds stems from the birds expending more energy and time responding to the disturbance rather than feeding[47]. Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately survival of the birds. In addition, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds[48]

6.4.20 Sensitivity to visual disturbance can be influenced by a number of factors including species and whether or not the bird is currently breeding. A literature review conducted by Goodship & Furness in 2022[49] provides a range of disturbance distances for many species of bird of relevance, sub-divided by breeding status.

6.4.21 Identified visual disturbance ranges[50] for qualifying species most likely to be impacted by the Proposed Works (terns) are up to 400m. The coastal habitats covered by the Ramsar and the SPA offer potential breeding and foraging sites for terns.

6.4.22 At the closest point to the Proposed Works, the SPA is offshore only, with the closest area inclusive of shoreline broad enough for breeding being 1.6km east of the Proposed Works and screened from the Proposed Works by the power station itself. The Ramsar is approximately 160m distant at this point which is within the distance potentially impacted by visual disturbance.

6.4.23 This land is already subject to high levels of visual disturbance as a result of operational activities within the power station from the movement of staff and operational vehicles in and out of Dungeness A and B. These activities make land close to the power station (and the Works Area) less attractive for use by qualifying species (terns). In addition, there has been less tern activity observed in the vicinity of the power station since the reactor was shut off. There is occasional use of the intake and outfall when cooling water is required due to ongoing maintenance, and this can result in tern foraging in

[47] Riddington, R., Hassall, M., Lane, S. J., Turner, P. A., & Walter, R. (1996). The impact of disturbance on the behaviour and energy budget of brent geese. Bird Study, 269-279.Available at: https://www.tandfonline.com/doi/pdf/10.1080/00063659609461019 [Accessed 17/02/2025]
[48] Gill, J. A., Sutherland, W. J., & Norris, K. (1998). The consequences of human disturbance for estuarine birds. RSPB Conservation Review, 67-72.
[49] Goodship, N.M. and Furness, R.W. (MacArthur Green) (2022) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283
[50] Goodship, N.M. and Furness, R.W. (MacArthur Green) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.

the outfall area. AECOM tern surveys (**Appendix 18-C**) in July 2025 recorded a single little tern feeding around 100m out to sea in an area not associated with the outfall. Surveys in August recorded up to 35 Sandwich tern and 20 common tern feeding in the area of the outfall. Local bird recorder data (personal communication) and discussions with the Romney Marsh Countryside Partnership rangers have confirmed less tern activity in the Dungeness B area. However, the Initial Decommisioning Works and the Final Site Clearance will result in a level of visual disturbance due to the additional number and type of vehicular movements, construction of new structures and deconstruction of existing structures, and the presence of additional operatives.

6.4.24 It cannot be concluded that there will be no likely significant effects in respect of visual disturbance related to construction and deconstruction, and therefore visual disturbance has been screened in for further assessment for the Initial Decommissioning Works and Final Site Clearance phases.

6.5 Water pollution

6.5.1 It is illegal to pollute watercourses under the Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and the Environmental Permitting (England and Wales) Regulations 2016. Standard pollution control measures are therefore to be deployed during construction to ensure that no watercourses or ground water, are polluted.

6.5.2 Potential environmental impacts that will be avoided, prevented, reduced or offset through the implementation of these control measures will include:

- Contamination of natural soils, contamination of groundwater with concrete, paste or grout;
- Pollution and degradation of water quality of any underlying aquifer;
- Infiltration and/or runoff into the local drainage/sewerage network - pollution of drainage and sewerage network and any adjacent surface water features;
- Run-off and infiltration of contaminants from material stockpiles; and
- Contamination of drainage and sewerage network and/or groundwater.

6.5.3 The SIP[51] (SIP) for Dungeness highlights water pollution as a threat with a measure to investigate water quality concerns at Greatstone which is 5.5km distance from the Proposed Works with no hydrological links beyond (outside of the English Channel) and is therefore not of relevance to the Proposed Works.

6.5.4 It can be concluded that there are no likely significant effects as a result of water pollution from as a result of the Proposed Works on Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and this can be screened out from Appropriate Assessment for all phases of the Proposed Works.

[51] Available at: https://publications.natungland.org.uk/file/5885279032311808 [Accessed 28/05/2025]

6.6 Habitat Loss

6.6.1 Whilst the majority of the construction and dismantling works will be undertaken within the Areas A and B of the Works Area, works will be required at the Long Pits (Area C). The works associated with the back-up cooling water infrastructure at the Long Pits is located within the Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar will require the removal of the existing structure. These works will require a limited working area for the dismantling, resulting in temporary disturbance, but would remove the building resulting in a net increase in semi-natural habitat on their completion.

6.6.2 On the basis that working methods are not confirmed, it is not yet possible to confirm that there will be no likely significant effects in respect of habitat loss on as a result of the Proposed Works on Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and this can be screened out from appropriate assessment for Initial Decommissioning Works only. There would be no direct land take during the Care and Maintenance of Final Site Clearance phases and therefore this can be screened out from Appropriate Assessment for these phases.

6.7 Changes in species distribution

6.7.1 The construction and dismantling works to be undertaken within the existing NSL area and the B1 hangar Building would not result in any changes in species distribution within any of the Habitats Sites, other than any potential impacts assessed as part of the noise and visual disturbance studies (see above). The works associated with the dismantling of the back-up cooling water infrastructure would be contained to a small working area within the Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar. It is not considered that these works could result in changes in species distribution other than any potential impacts assessed as part of the noise and visual disturbance studies (see above).

6.7.2 It can be concluded that there are no likely significant effects as a result of changes in species distribution as a result of the Proposed Works on Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and this can be screened out from Appropriate Assessment for all phases of the Proposed Works.

6.8 Invasive species

6.8.1 Invasive non-native species can be introduced to, or moved within, a site during the construction or operational phases, and they can then spread to nearby Habitats Sites. Invasive species can have a negative impact on qualifying species within the Habitats Sites.

6.8.2 Red valerian (*Valeriana rubra*) is present within the Works Area and is capable of populating the coastal vegetated shingle and putting pressure on other species (a qualifying feature of the site is the “perennial vegetation of

stony banks"). Traveller's joy (*Clematis vitalba*) is also present within the Works Area.

6.8.3 Although both species are considered to be native/naturalised in the UK and do not appear in schedule 9 of the Wildlife and Countryside Act 1981 (as amended), they are both considered to be potentially invasive at Dungeness due to the speed at which they can reproduce and gain a significant foothold in the shingle habitats present once introduced.

6.8.4 Movement of vehicles and construction work may act as an aid to the distribution of seeds of this plant which are dispersed by wind.

6.8.5 Both species favour alkaline soils (the habitat being disturbed by construction is acidic) and so the likelihood of presence within the footprint of the Proposed Works are relatively low.

6.8.6 The Dungeness Annual Land Management Review (2023) includes the KPI "*Control Invasive species (predominantly red valerian and traveller's joy) in targeted areas*" and notes an overall reduction of numbers.

6.8.7 Existing land management plans which are not connected to this Proposed Works are in place and can be considered as appropriate measures against the small risk presented by invasive species.

6.8.8 It can be concluded that there are no likely significant effects from invasive species as a result of the Proposed Works on Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and this can be screened out from Appropriate Assessment for all phases of the Proposed Works.

6.9 Coastal Squeeze

6.9.1 Coastal squeeze impacts are closely related to habitat loss and fragmentation. Coastal squeeze typically arises through the development of hard flood and sea defences or reinforcement of coastal margins. This prevents the natural movement of coastal habitats, reducing the extent of intertidal habitats in particular. Reduction or loss of intertidal habitats can impact the availability of foraging resource available for a range of wetland bird species.

6.9.2 There are existing sea defences at Dungeness in the form of shingle recharge to form a protective embankment along the shoreline. Over 45,000m^3 of shingle are moved each year to maintain a barrier against coastal erosion. This process started in the 1960s with the construction of Dungeness A and will continue up until 2041 under the current permission. The South Foreland to Beachy Head Shoreline Management Plan (2006) policy is to maintain this to hold the line to 2100, which covers much of the duration of the Proposed Works.

6.9.3 An application for continuation of the shingle recharge operations with a maximum amount of shingle to be extracted in any one season to be 45,000m^3 (Reference KCC/FH/0128/2025) was submitted on 3rd October 2025. This was subject to HRA. This concluded that there would be no

adverse effects on the integrity of any of the Habitats Sites as a result of the proposed operations provided that mitigation measures were in place.

6.9.4 The previous application, Reference SH/11/852 (KCC/SH/0381/2011) was approved on the 31st October 2014. All shingle extraction operations are undertaken in an unvegetated part of the shoreline and no vegetated shingle habitat is lost as a result of this activity.

6.9.5 It can be concluded that there are no likely significant effects from coastal squeeze as a result of the Proposed Works on Dungeness SAC and the Dungeness, Romney Marsh and Rye Bay SPA / Ramsar, either alone or in combination, and this can be screened out from Appropriate Assessment for all phases of the Proposed Works.

6.10 Loss of functionally linked land

6.10.1 This is defined as the loss of habitat that is outside the boundary of a European Site, but which is critical to its functioning. For example, the loss of habitat outside of an SPA which is used for foraging purposes by significant numbers (frequently defined as more than 1% of the population) of qualifying bird species for which the SPA is designated, is regarded as a significant loss of functionally-linked habitat. The distance related to loss of functionally-linked habitat is dependent on the species in question and can vary greatly. While most Habitat Sites have been geographically defined to encompass the key features that are necessary for coherence of their structure and function, and the support of their qualifying features, this is not necessarily the case. A diverse array of qualifying species, including birds and amphibians, are not always confined to the boundary of designated sites.

6.10.2 For example, the highly mobile nature of both wader and waterfowl species implies that areas of habitat of crucial importance to the integrity of their populations could lie outside the physical limits of Habitats Sites. Despite not being part of the formal designation, these habitats are integral to the maintenance of the structure and function of the designated site, for example by encompassing important foraging grounds. Therefore, land use plans that may affect such functionally linked habitat require further assessment.

6.10.3 There is now an abundance of authoritative examples of HRA cases on plans affecting bird populations, where Natural England recognised the potential importance of functionally linked habitat. For example, bird surveys in relation to a previous HRA established that approximately 25% of the golden plover population in the Somerset Levels and Moors SPA were affected while on functionally linked land, and this required the inclusion of mitigation measures in the relevant plan policy wording. Another important case study originates from the Mersey Estuary SPA / Ramsar, where adjacently located functionally linked land had a peak survey count of 108% of the 5 year mean peak population of golden plover. This finding led to considerable amendments in the planning proposal to ensure that the site integrity was not adversely affected.

6.10.4 The identification of an area as functionally linked habitat is not always a straightforward process. The importance of non-designated land parcels may not be apparent and thus might require the analysis of existing data sources

(e.g. Bird Atlases or data from records centres) to be firmly established. In some instances, data may not be available at all, requiring further survey work.

6.10.5 An area may be considered functionally linked if:

- It is of a type likely to be used by a receptor (for example, a bird species) such as grazing salt marsh;
- The area is within the usual foraging range of the bird species in question (as measured from the Habitats Site);
- There is sufficient habitat that the area is of value (the further a species travels to an area, the more energy is expended and therefore the land must provide the possibility of recovering the energy spent to be considered useful; and
- The area conforms to other characteristics required by the receptor species, for example, clear line of site to avoid predation;

6.10.6 Functionally linked land does not have to be physically lost to have an impact, it may be considered lost to the Habitats Site if becomes unusable as a result of disturbance or other changes.

6.10.7 Due to the ongoing ornithological, great crested newt, NVC and other surveys, and the presence of sensitive ecological receptors, it is not yet possible to confirm that there will be no likely significant effects in respect of loss of functionally linked land, associated with disturbance, has been screened in for further assessment at Appropriate Assessment stage for the Initial Decommissioning Works and the Final Site Clerance Phases only. Due to the nature of the works during the Care and Maintenance Phase, it can be concluded there will be no likely significant effects in respect of in respect of loss of functionally linked land, associated with disturbance.

7 Summary of Potential Terrestrial Effects

7.1.1 **Table 7-1** provides a summary of the test of likely significant effects for the terrestrial activities of the Proposed Works as discussed in **Section 6**.

Table 7-1: Summary of Potential Terrestrial Effects

Pathway	Initial Decommissioning Works	Care and Maintenance	Final Site Clearance
Atmospheric Pollution - Dust	**Screened in**	**Screened in**	**Screened in**
Atmospheric Pollution – Vehicular Movements	Screened out	Screened out	**Screened in**
Noise Disturbance – Construction and Dismantling	**Screened in**	Screened out	**Screened in**

Pathway	Initial Decommissioning Works	Care and Maintenance	Final Site Clearance
Noise Disturbance – traffic	Screened out	Screened out	Screened out
Visual Disturbance	**Screened in**	Screened out	**Screened in**
Water pollution	Screened out	Screened out	Screened out
Habitat Loss	**Screened in**	Screened out	Screened out
Changes in species distribution	Screened out	Screened out	Screened out
Invasive species	Screened out	Screened out	Screened out
Coastal squeeze	Screened out	Screened out	Screened out
Loss of functionally linked habitat	**Screened in**	Screened out	**Screened in**
Military	Screened out	Screened out	Screened out
Vehicles: Illicit	Screened out	Screened out	Screened out
Predation	Screened out	Screened out	Screened out
Inappropriate scrub control	Screened out	Screened out	Screened out

8 Activities in the Marine Environment

8.1 The Marine Works area

8.1.1 The Marine Works are located entirely in subtidal waters offshore from Dungeness Beach in the Greater North Sea and English Channel marine region. The existing CW outfall and intake infrastructures are located approximately 160m and 340m from the shoreline respectively and are in water which is 0 - 12m deep. No access will be required to the intertidal area required during the Marine Works. However, due to the location of the Marine Works and the potential for some indirect impact pathways to affect the intertidal area (i.e. airborne pollutant deposition, airborne noise affecting seals hauled-out on Dungeness Beach), intertidal habitat has been included within the baseline for completeness.

8.1.2 The Marine Study Area has been based on the greatest likely ‘Zone of Influence’ (ZoI) for the Proposed Works in the Greater North Sea and English Channel. The ZoI represents the precautionary area over which marine ecology features may be impacted by the Marine Works and associated activities. Furthermore, the Study Area for the marine ecology baseline has been defined on a precautionary basis to obtain sufficient data to determine the ZoI for the purpose of the ecological impact assessment (EcIA).

8.1.3 The Study Area primarily focuses on the subtidal waters surrounding the Marine Works up to 8km away and marine ecological features present within this area, further consideration has also been given to the wider North Sea and English Channel for receptors (and associated designated sites), such

as marine mammals that could be present in the area of the Marine Works following guidance from ABPmer[52] and the Inter-Agency Marine Mammal Working Group[53].

8.1.4 The 8km study area is based on tidal excursion data provided by the ABPmer UK Marine Renewables Atlas[54] and therefore is considered to represent the a precautionary zone of influence based on the movement of water and therefore transport of sediment.

8.1.5 For marine mammals, marine mammal management units (MMMUs) and seal management units (SMUs) have also been considered[55]. The maximum foraging ranges for seals are also considered, these being 273km for harbour seal (*Phoca vitulina*) and 448km for grey seal (*Halichoeus grypus*)[56].

9 Test of Likely Significant Effects – Marine Activities

9.1.1 Impacts of Annex I and II habitats within the Wash and Norfolk Coast, and Humber Estuary SACs have been scoped out due to distance.

9.1.2 Diadromous (i.e. migratory) fish which are known to migrate through coastal environments (i.e. where the Marine Works are located) include, sea lamprey (*Petromyzon marinus*) and river lamprey (*Lampetra fluviatilis*). The River Thames and Thames River Basin (including the Thames, Medway and Colne rivers), located approximately 57km from the Marine Works, support small numbers of lamprey. The River Stour (Essex) located approximately 117km north of the Marine Works is also thought to support small numbers of lamprey.

9.1.3 The Southern North Sea SAC is designated for the population of harbour porpoise. Conservation objectives for this Habitats Site are to maintain site integrity by ensuring:

- Harbour porpoise are a valuable component of the site;
- There is no significant disturbance of the species; and

[52] ABPMer. (2014). Wave and Tidal Further Leasing. HRA Principles Document, Screening Report and Appropriate Assessment Information Report. Crown Estate.
[53] Inter-Agency Marine Mammal Working Group (2023). Review of Management Unit boundaries for cetaceans in UK waters. JNCC Report 734, JNCC, Peterborough, ISSN 0963-8091. (Online) Available at: https://hub.jncc.gov.uk/assets/b48b8332-349f-4358-b080-b4506384f4f7. (Accessed: 17/12/2025).
[54] ABPmer. (2018). UK Marine Renewables Atlas. (Online). Available at: https://www.renewables-atlas.info/explore-the-atlas/. (Accessed: 17/12/2025).
[55] Inter-Agency Marine Mammal Working Group (IAMMWG). (2023). Review of Management Unit boundaries for cetaceans in UK waters. JNCC Report 734, JNCC, Peterborough, ISSN 0963-8091. (Online) Available at: https://hub.jncc.gov.uk/assets/b48b8332-349f-4358-b080-b4506384f4f7. (Accessed: 17/10/2025).
[56] Carter, M.I.D., et al. (2022). Sympatric Seals, Satellite Tracking and Protected Areas: Habitat-Based Distribution Estimates for Conservation and Management. Frontiers in Marine Science.

- The condition of supporting habitats and processes, and the availability of prey is maintained.

9.1.4 Harbour porpoises are commonly recorded in Dungeness waters. Regular monitoring of the Dungeness coastline as part of the EDF Land Management Annual Review has noted regular recordings of harbour porpoise in Dungeness coastal waters, with daily numbers in the 2021 report regularly reaching more than 50 individuals depending on tidal and sea state conditions, although numbers in 2023 were comparatively lower. Peak counts are typically observed during late spring through to the summer months. However, the EDF Energy Annual Land Management Reviews from 2012 to 2021 regularly note harbour porpoise presence throughout the year in varying abundances. The Dungeness Bird Observatory also regularly record the presence of harbour porpoise in waters offshore from Dungeness[57].

9.1.5 The Wash and North Norfolk SAC is designated for the population of harbour seal.

9.1.6 The Humber Estuary is designated for the population of grey seal.

9.1.7 The closest seal haul-out site to the Marine Works is located in Rye Harbour Nature Reserve on the River Rother, approximately 13km west of the Marine Works. Small numbers of both harbour seal and grey seal are regularly observed resting in the inlets of the River Rother and swimming in the inshore waters of the harbour mouth and neighbouring Rye Bay. A larger haul-out site for both species is also be found on Goodwin Sands[58], where harbour seals are reported to breed and pup. Goodwin Sands is located approximately 44km north of the Marine Works. Both species are also regularly observed resting on Dungeness beach in small numbers and swimming in the surrounding coastal waters. Therefore, both harbour and grey seal are expected to be present in waters surrounding the Marine Works.

9.1.8 Both harbour and grey seal can travel long distances from haul-out sites for foraging, with a maximum foraging range of 273km and 448km respectively[59]. As such, the seals at Dungeness may be associated with the Habitats Sites.

9.2 Potential effects

9.2.1 The following pathways have been identified for the test of likely significant effects:

- Direct loss and physical disturbance to benthic habitats and species within the ZoI;

[57] Dungeness Bird Observatory. (2025). Observatory Blog Archive. (Online). Available at: http://www.dungenessbirdobs.org.uk/2025/10/13th-oct.html. (Accessed: 16/10/2025).
[58] Cox, T., Barker, J., Bramley, J., Debnery, A., Thompson, D. and Cucknell, A. (2020). Population trends of harbour and grey seal in the Greater Thames Estuary. Mammal Communications, 6, 9.
[59] Carter, M.I.D., et al. (2022). Sympatric Seals, Satellite Tracking and Protected Areas: Habitat-Based Distribution Estimates for Conservation and Management. Frontiers in Marine Science.

- Airborne noise and visual disturbance to seals;
- Underwater noise on fish and marine mammals;
- Collision risk between Project vessels and marine mammals;
- Introduction and spread of INNS; and
- Barriers to migration.

Direct loss and physical disturbance to benthic habitats and species within the ZoI

9.2.2 The Marine Works will use the existing outfall infrastructure. New piping will be placed inside the existing infrastructure and therefore there will be no placement of new permanent hard structures on the seabed which are not already in place. As a result, permanent direct habitat loss is not expected to occur and this pathway can be screened out of further assessment during all phases of the Proposed Works.

Airborne Noise and Visual Disturbance to Seals

9.2.3 Seals can be sensitive to disturbance and auditory injury from anthropogenic noise and the presence of construction equipment. Therefore, potential effects from airborne noise disturbance (including auditory injury and disturbance behaviour) and changes in visual stimuli during the Proposed Works could occur.

9.2.4 Baseline airborne noise monitoring is to be undertaken and will include coverage of locations on Dungeness Beach where seals are commonly observed**.** Airborne noise calculations will be conducted to inform the marine ecology assessment and will be compared to the baseline noise monitoring to determine potential impacts.

9.2.5 Due to the ongoing surveys, and the presence of sensitive ecological receptors, it cannot be concluded that there will be no likely significant effects in respect of airborne noise and visual disturbance to seals. This has been screened in for further assessment at Appropriate Assessment stage Initial Decommissioning Works and Final Site Clearance phases only. Due to the nature of the works during the Care and Maintenance Phase, it can be concluded there will be no likely significant effects in respect of airborne noise and visual disturbance to seals.

Underwater Noise Effects on Fish and Marine Mammals

9.2.6 Underwater noise may arise during the Marine Works, particularly when inserting the new piping into the existing outfall infrastructure. The exact methodology for threading new discharge piping through the existing outfall infrastructure has not yet been confirmed but is expected to include some drilling. The use of vessels / barges is also required, and this is likely to produce underwater noise.

9.2.7 Once specific activities have been confirmed, the sound characteristics for each sound source likely to be produced during the Marine Works will be determined based on publicly available online literature concerning values

for common sound generating activities and by using professional judgement based on previous projects. Details on assumed sound intensity and operating frequency can also be inferred from available data sources. Once operating frequencies and sound levels have been established from the likely sound sources, they will be compared to the hearing range of fish and marine mammals to determine whether the hearing range and frequency of sound-generating Marine Works activities overlap.

9.2.8 To obtain accurate measurements of underwater sound propagation and sound levels at a set distance from the sound (i.e. 100m, 200m, 1km), high-level modelling and/or calculations may be required which also factor in site-specific environmental conditions. To assess effects on marine receptors, the modelling results will be compared to thresholds and relative risk ratings for auditory injury provided by United States National Marine Fisheries Service (for marine mammals).[60]

9.2.9 Due to the ongoing surveys, and the presence of sensitive ecological receptors, it cannot be concluded that there will be no likely significant effects in respect of underwater noise to fish and marine mammals. This has been screened in for further assessment at Appropriate Assessment stage for Initial Decommisioning Works.

9.2.10 As there are no works are planned in the marine environment during the Care and Maintenance and Final Site Clearance phase, it can be concluded that there will be no likely significant effects in underwater noise to fish and marine mammals during these phases.

Collision Risk between Proposed Project Vessels and Marine Mammals

9.2.11 The operation of vessels and barges in subtidal waters close to the shoreline has the potential to increase collision risk with marine mammals. The exact number of vessels and barges required during the Marine Works has not yet been confirmed.

9.2.12 Due to the uncertainty and the presence of sensitive ecological receptors, it cannot be concluded that there will be no likely significant effects in respect of collision risk to marine mammals. This has been screened in for further assessment at Appropriate Assessment stage for the Initial Decommissioning Works.

9.2.13 As there are no works are planned in the marine environment during the Care and Maintenance and Final Site Clearance phase, it can be concluded that there will be no likely significant effects in respect of collision risk to marine mammals during these phases.

[60] National Marine Fisheries Service (NMFS). (2024). Update to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 3.0): Underwater and In Air Criteria for Onset of Auditory Injury and Temporary Threshold Shifts. U.S. Dept. of Commer., NOAA. NOAA Technical Memorandum NMFS-OPR-71

Introduction and spread of INNS

9.2.14 The Marine Works do not involve the placement of any new materials which will be exposed to the marine environment for a prolonged period of time, which any INNS could colonise. Furthermore, as part of embedded mitigation measures, all vessels would be required to comply with International Convention for the Control and Management of Ships' Ballast Water and Sediments to prevent the spread of marine INNS, and International Maritime Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species. It can be concluded that there will be no likely significant effects in respect of the risk of introduction and spread during all phases of the Proposed Works.

Barriers to migration

9.2.15 Given (i) the location of the Marine Works, i.e. a maximum of approximately 160m offshore from the Dungeness coastline, (ii) the short-term duration of the Marine Works in the marine environment and (iii) the limited potential pathways for impact, there is considered to be no barrier to migration for both migratory fish and marine mammals. Therefore, it can be concluded that there will be no likely significant effects in respect of barriers to migration during all phases of the Proposed Works

10 Summary of Potential Marine Effects

10.1.1 **Table 10-1** provides a summary of the test of likely significant effects for the Marine Works as discussed in **Section 9**.

Table 10-1: Summary of Potential Marine Effects

Pathway	Initial Decommissioning Works	Care and Maintenance	Final Site Clearance
Direct loss and physical disturbance to benthic habitats and species within the ZoI	Screened out	Screened out	Screened out
Airborne noise and visual disturbance to seals	**Screened in**	Screened out	**Screened in**
Underwater noise on fish and marine mammals	**Screened in**	Screened out	Screened out
Collision risk between Project vessels and marine mammals	**Screened in**	Screened out	Screened out
Introduction and spread of INNS	Screened out	Screened out	Screened out

Pathway	Initial Decommissioning Works	Care and Maintenance	Final Site Clearance
Barriers to migration	Screened out	Screened out	Screened out

11 In-Combination Assessment

11.1.1 The likelihood of the Proposed Works causing significant effects in-combination with other projects and plans (see **Annex B**) has been considered.

11.1.2 The local plan (Folkestone & Hythe District Council Core Strategy Review[61]) has been reviewed, alongside other plans and projects and the decommissioning works for possible in-combination effects.

11.1.3 Therefore, they will not act in-combination with other plans or schemes to produce an LSE. The plan will have no impact on water levels or water pollution and can therefore no contribute to any in-combination effects.

11.1.4 It was concluded that the following impact pathways can be screened out from Likely Significant Effects either alone or in-combination with other plans and projects and therefore do not require Appropriate Assessment:

- Atmospheric pollution (associated with vehicular movements)– Initial Decommissioning Works and Care and Maintenance phases;
- Inappropriate water levels;
- Water pollution;
- Changes in species distribution;
- Invasive species; and
- Coastal squeeze.

11.1.5 The following impact pathways have been assessed as having potential for Likely Significant Effects, either alone or in combination with other plans and projects and require further assessment, which may include Appropriate Assessment:

- Atmospheric pollution (Dust) - all stages
- Atmospheric pollution (associated with vehicular movements) – Final Site Clearance;
- Noise and visual disturbance – terrestrial impacts;
- Noise disturbance – terrestrial impacts;
- Habitat loss;
- Loss of functionally linked land;
- Airborne noise and visual disturbance to seals;

[61] Available at https://www.folkestone-hythe.gov.uk/downloads/file/3593/core-strategy-review-2022 [Accessed 13/06/2025)

- Underwater noise on fish and marine mammals; and
- Collision risk between Project vessels and marine mammals.

12 Conclusion and recommendations

12.1.1 The following Habitats Sites were considered for LSEs as a result of the Proposed Works.

- Dungeness SAC;
- Dungeness, Romney Marsh and Rye Bay Ramsar;
- Dungeness, Romney Marsh and Rye Bay SPA;
- Southern North Sea SAC;
- The Wash and North Norfolk Coast SAC; and
- Humber Estuary SAC.

12.1.2 It was concluded that the following impact pathways are provisionally screened in for Test of Likely Significant Effects stage:

- Noise and visual disturbance- terrestrial impacts;
- Noise disturbance – terrestrial impacts;
- Loss of functionally linked land (associated with disturbance);
- Airborne noise and visual disturbance to seals;
- Underwater noise on fish and marine mammals; and
- Collision risk between Project vessels and marine mammals.

12.1.3 These conclusions will be revisited during the preparation of the formal submission of a HRA Stage 1 – Screening LSE task to be submitted to Natural England at an appropriate time in the future following further design development and the completion of further survey work.

Annex A Habitats Sites Details

A.1 Dungeness, Romney Marsh and Rye Bay Ramsar

Dungeness, Romney Marsh and Rye Bay Ramsar Site is located on the south coast of England, on the border of East Sussex and Kent between Hastings and New Romney. It is a large area with a diverse coastal landscape comprising a number of habitats, which appear to be unrelated to each other. However, all of them exist today because coastal processes have formed and continue to shape a barrier of extensive shingle beaches and sand dunes across an area of intertidal mud and sand flats. The site includes the largest and most diverse area of shingle beach in the UK, with low-lying hollows in the shingle providing nationally important saline lagoons, natural freshwater pits and basin fens. Rivers draining the Weald to the north were diverted by the barrier beaches, creating a sheltered saltmarsh and mudflat environment, which was gradually in-filled by sedimentation, and then claimed on a piecemeal basis by man. Today this area is still fringed by important intertidal habitats, and contains relict areas of saltmarsh, extensive grazing marshes and reedbeds. Human activities have further modified the site, resulting in the creation of extensive areas of wetland habitat due to gravel extraction. As a whole, Dungeness, Romney Marsh and Rye Bay is important for breeding, wintering and passage waterbirds, wetland plants, bryophytes and invertebrates, and natural or near-natural wetland habitats. In addition to the internationally important wetland habitats and species, the Ramsar Site and adjacent areas are also of national and international importance for a diversity of non-wetland habitats and species.[62]

Qualifying Features[63]

Criterion 1

Contains representative, rare, or unique examples of natural or near-natural wetland types. These include:

- Annual vegetation of drift lines and the coastal fringes of perennial vegetation of stony banks (Ramsar wetland type E – sand, shingle or pebble shores).

Criterion 2

Supports several vulnerable, endangered or critically endangered species. These include:

- Warne's thread-moss *Bryum warneum*
- Water vole Arvicola amphibius
- Aquatic warbler Acrocephalus paludicola
- Great crested newt *Triturus cristatus*
- Medicinal leech Hirudo medicinalis

[62] https://rsis.ramsar.org/RISapp/files/RISrep/GB2555RIS_2501_en.pdf [Accessed 21/05/2025]
[63] Ibid

- A ground beetle Omophron limbatum
- Marsh mallow moth Hydraecia osseola hucherardi
- De Folin's lagoon snail *Caecum amoricum*

Criterion 5

In the non-breeding season, the site regularly supports 34,957 individual waterbirds (5-year peak mean 2002/3-2006/7).

Criterion 6

The site qualifies under Criterion 6 because it regularly supports

- 1.1% of the British population of Mute swan *Cygnus olor*
- 1.2% of the NW and C European non-breeding population of Shoveler *Spatula clypeata.*

Environmental Vulnerabilities

No specific threats and pressures are listed in the Ramsar citation those listed for the SAC and SPA which cover the same area are taken to apply equally to the Ramsar.

A.2 Dungeness SAC

Conservation Advice

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change[64];

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of the qualifying species, and,
- The distribution of the qualifying species within the site.

Qualifying Features

The qualifying features of the SAC[65] are:

- H1210 Annual vegetation of drift lines

[64] Available at: https://publications.naturalengland.org.uk/file/6239619956080640 [Accessed 17/10/2025]
[65] Available at https://publications.naturalengland.org.uk/file/6607674816856064 [Accessed 17/10/2025]

- H1220 Perennial vegetation of stony banks (Coastal shingle vegetation outside of the reach of waves)
- S1166 Great Crested Newt (*Triturus cristatus*)

Environmental Vulnerabilities

The Site Improvement Plan for Dungeness (SIP068[66]) covers both the SPA and the SAC with the following identified threats and pressures of relevance to the Proposed Works.

- Military,
- Vehicles: Illicit,
- Predation,
- Changes in Species Distribution,
- Invasive species,
- Inappropriate scrub control,
- Air pollution: impact of atmospheric nitrogen deposition,
- Inappropriate water levels,
- Coastal squeeze, and
- Water pollution.

A.3 Dungeness, Romney Marsh and Rye Bay SPA

Dungeness, Romney Marsh and Rye Bay SPA is located on the south coast of England between Hythe in Kent crossing the county border of East Sussex to Norman's Bay. This is a large area with a diverse coastal and marine landscape comprising a number of habitats, which appear to be unrelated to each other. However, all of them persist because coastal processes have formed and continue to shape a barrier of extensive coastal shingle beaches and sand dunes across an area of intertidal mud and sand flats. The site includes the largest and most diverse area of shingle beach in Britain, with low-lying hollows in the shingle providing nationally important saline lagoons, natural freshwater pits and basin fens. Rivers draining the Weald to the north were diverted by the barrier beaches, creating a sheltered saltmarsh and mudflat environment, which was gradually infilled by sedimentation, and then reclaimed on a piecemeal basis by man. This area is fringed by important intertidal habitats, and contains relict areas of saltmarsh, extensive grazing marshes and reedbeds.

The site also includes a diverse range of broadscale habitats within the marine environment which support a variety of prey species for the foraging seabirds. These habitats include subtidal and intertidal sand and muddy sand, subtidal biogenic reef, intertidal stony reef, coarse and mixed sediments, and moderate energy infralittoral and circalittoral rock.

[66] Available at: https://publications.natungland.org.uk/file/5885279032311808 [Accessed 17/10/2025]

Conservation Objectives

With regard to the SPA and the individual species and/ or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change[67];

- Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;
- The extent and distribution of the habitats of the qualifying features,
- The structure and function of the habitats of the qualifying features,
- The supporting processes on which the habitats of the qualifying features rely,
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Qualifying Features

The site qualifies under Article 4.1 of the Directive (2009/147/EC):

- Common tern *Sterna hirundo*
- Sandwich tern *Sterna sandvicensis*
- Avocet *Recurvirostra avosetta*
- Bewick's swan *Cygnus columbianus bewickii*
- Bittern *Botaurus stellaris*
- Hen harrier *Circus cyaneus*
- Golden plover *Pluvialis apricaria*
- Little tern *Sternula albifrons*
- Ruff *Caldris pugnax*
- Aquatic warbler *Acrocephalus paludicola*
- Marsh harrier *Circus aeruginosus*
- Mediterranean Gull *Ichthyaetus melanocephalus*
- Shoveler *Anas clypeata*

The site qualifies under Article 4.2 of the Directive (2009/147/EC) as it is regularly used by over 20,000 waterbirds in any season.

Environmental Vulnerabilities

The Site Improvement Plan for Dungeness (SIP068[68]) covers both the SPA and the SAC therefore these are the same pressures as listed under the SPA.

[67] Available at: https://publications.naturalengland.org.uk/file/6070367483592704 [Accessed 21/05/2025]
[68] Available at: https://publications.naturalengland.org.uk/file/5885279032311808 [Accessed 21/05/2025]

A.4 Southern North Sea SAC

The Southern North Sea SAC covers an area of 3,695,054 ha off the east coast of England, with a depth range of Mean Low Water to 75m below sea level. It is a 100% marine site covering an area north of the Wash.

Qualifying Features

The qualifying features of the marine SAC are:

- Harbour porpoise (*Phocoena Phocoena*)

The Southern North Sea SAC lies along the east coast of England, predominantly in the offshore waters of the central and southern North Sea, from north of Dogger Bank to the Straits of Dover in the south. This site stretches from the central North Sea (north of Dogger Bank) to the Straits of Dover in the south, covering an area of 36,951km^2, making it the largest SAC in UK and European waters at the point of designation in 2019.

The Southern North Sea SAC is an area of importance for harbour porpoise, supporting an estimated 17.5% of the UK North Sea Management Unit population. Approximately two-thirds of the site, the northern part, is recognised as important for porpoises during the summer season, whilst the southern part supports persistently higher densities during the winter. The majority of this site lies offshore but does extend from the coastal areas of Norfolk and Suffolk out to the 12 nautical mile limit. Therefore, both Natural England and JNCC are responsible for providing statutory advice.

The SAC ranges in depth from Mean Low Water down to 75m, with the majority of the site shallower than 40m, and is characterised by its sandy, coarse sediments which cover much of the site. These physical characteristics are thought to be preferred by harbour porpoise, likely due to availability of prey.

A.5 The Wash and North Norfolk Coast SAC

Qualifying Features

Annex I habitats that are a primary reason for selection of this site

- 1110 Sandbanks which are slightly covered by sea water all the time

On this site sandy sediments occupy most of the subtidal area, resulting in one of the largest expanses of sublittoral **sandbanks** in the UK. It provides a representative example of this habitat type on the more sheltered east coast of England. The subtidal sandbanks vary in composition and include coarse sand through to mixed sediment at the mouth of the embayment. Sublittoral communities present include large dense beds of brittlestars *Ophiothrix fragilis*. Species include the sand-mason worm *Lanice conchilega* and the tellin *Angulus tenuis*. Benthic communities on sandflats in the deeper, central part of the Wash are particularly diverse. The subtidal sandbanks provide important nursery grounds for young commercial fish species, including plaice *Pleuronectes platessa*, cod *Gadus morhua* and sole *Solea solea*.

- 1140 Mudflats and sandflats not covered by seawater at low tide

The Wash, on the east coast of England, is the second-largest area of intertidal flats in the UK. The sandflats in the embayment of the Wash

include extensive fine sands and drying banks of coarse sand, and this diversity of substrates, coupled with variety in degree of exposure, means that there is a high diversity relative to other east coast sites. Sandy intertidal flats predominate, with some soft mudflats in the areas sheltered by barrier beaches and islands along the north Norfolk coast. The biota includes large numbers of polychaetes, bivalves and crustaceans. Salinity ranges from that of the open coast in most of the area (supporting rich invertebrate communities) to estuarine close to the rivers. Smaller, sheltered and diverse areas of intertidal sediment, with a rich variety of communities, including some eelgrass *Zostera* spp. beds and large shallow pools, are protected by the north Norfolk barrier islands and sand spits.

- **1160** Large shallow inlets and bays

The Wash is the largest embayment in the UK and represents Large shallow inlets and bays on the east coast of England. It is connected via sediment transfer systems to the north Norfolk coast. Together, the Wash and North Norfolk Coast form one of the most important marine areas in the UK and European North Sea coast, and include extensive areas of varying, but predominantly sandy, sediments subject to a range of conditions. Communities in the intertidal include those characterised by large numbers of polychaetes, bivalve and crustaceans. Sublittoral communities cover a diverse range from the shallow to the deeper parts of the embayments and include dense brittlestar beds and areas of an abundant reef-building worm (‘ross worm’) *Sabellaria spinulosa*. The embayment supports a variety of mobile species, including a range of fish and **1365 Common seal *Phoca vitulina***.

- 1170 Reefs

The Wash is the largest embayment in the UK with extensive areas of subtidal mixed sediment. In the tide-swept approaches to the Wash, with a high loading of suspended sand, the relatively common tube-dwelling polychaete worm *Sabellaria spinulosa* forms areas of biogenic **reef**. These structures are varied in nature, and include reefs which stand up to 30 cm proud of the seabed and which extend for hundreds of metres (Foster-Smith & Sotheran 1999). The reefs are thought to extend into The Wash where super-abundant *S. spinulosa* occurs and where reef-like structures such as concretions and crusts have been recorded. The site and its surrounding waters is considered particularly important as it is the only currently known location of well-developed stable *Sabellaria* reef in the UK. The reefs are particularly important components of the sublittoral as they are diverse and productive habitats which support many associated species (including epibenthos and crevice fauna) that would not otherwise be found in predominantly sedimentary areas. As such, the fauna is quite distinct from other biotopes found in the site. Associated motile species include large numbers of polychaetes, mysid shrimps, the pink shrimp *Pandalus montagui*, and crabs. *S. spinulosa* is considered to be an important food source for the commercially important pink shrimp *P. montagui* (see overview in Holt *et al*. 1998).

- 1310 Salicornia and other annuals colonizing mud and sand

The largest single area of this vegetation in the UK occurs at this site on the east coast of England, which is one of the few areas in the UK where

saltmarshes are generally accreting. The proportion of the total saltmarsh vegetation represented by ***Salicornia* and other annuals colonising mud and sand** is high because of the extensive enclosure of marsh in this site. The vegetation is also unusual in that it forms a pioneer community with common cord-grass *Spartina anglica* in which it is an equal component. The inter-relationship with other habitats is significant, forming a transition to important dune, saltmeadow and halophytic 1330 *Atlantic salt meadows (Glauco-Puccinellietalia maritimae*) scrub communities.

This site on the east coast of England is selected both for the extensive ungrazed saltmarshes of the North Norfolk Coast and for the contrasting, traditionally grazed saltmarshes around the Wash. The Wash saltmarshes represent the largest single area of the habitat type in the UK. The **Atlantic salt meadows** form part of a sequence of vegetation types that are unparalleled among coastal sites in the UK for their diversity and are amongst the most important in Europe. Saltmarsh swards dominated by sea-lavenders *Limonium* spp. are particularly well-represented on this site. In addition to typical lower and middle saltmarsh communities, in North Norfolk there are transitions from upper marsh to freshwater reedswamp, sand dunes, shingle beaches and mud/sandflats.

- 1420 Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*)

The Wash and North Norfolk Coast, together with the North Norfolk Coast, comprises the only area in the UK where all the more typically Mediterranean species that characterise **Mediterranean and thermo-Atlantic halophilous scrubs** occur together. The vegetation is dominated by a shrubby cover up to 40 cm high of scattered bushes of shrubby sea-blite *Suaeda vera* and sea-purslane *Atriplex portulacoides*, with a patchy cover of herbaceous plants and bryophytes. This scrub vegetation often forms an important feature of the upper saltmarshes, and extensive examples occur where the drift-line slopes gradually and provides a transition to dune, shingle or reclaimed sections of the coast. At a number of locations on this coast perennial glasswort *Sarcocornia perennis* forms an open mosaic with other species at the lower limit of the sea-purslane community.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

- 1150 Coastal lagoons * Priority feature

Annex II species that are a primary reason for selection of this site

- 1365 Harbour seal *Phoca vitulina*

Situated on the east coast of England, The Wash and North Norfolk Coast SAC encompasses the largest embayment in the UK, as well as extensive intertidal sand and mudflats, subtidal sandbanks, biogenic and geogenic reef, saltmarsh and a barrier beach system unique in the UK. Covering 1078km² it includes the following overlapping protected areas: The Wash SPA, North Norfolk Coast SAC and SPA, Gibraltar Point SPA and Inner Dowsing, Race Bank and North Ridge SAC.

A.6 Humber Estuary SAC

The Humber is the second largest coastal plain Estuary in the UK, and the largest coastal plain estuary on the east coast of Britain. The estuary supports a full range of saline conditions from the open coast to the limit of saline intrusion on the tidal rivers of the Ouse and Trent. The range of salinity, substrate and exposure to wave action influences the estuarine habitats and the range of species that utilise them; these include a breeding bird assemblage, winter and passage waterfowl, river and sea lamprey, grey seals, vascular plants and invertebrates.

The Humber is a muddy, macro-tidal estuary, fed by a number of rivers including the Rivers Ouse, Trent and Hull. Suspended sediment concentrations are high, and are derived from a variety of sources, including marine sediments and eroding boulder clay along the Holderness coast. This is the northernmost of the English east coast estuaries whose structure and function is intimately linked with soft eroding shorelines. The extensive mud and sand flats support a range of benthic communities, which in turn are an important feeding resource for birds and fish. Wave exposed sandy shores are found in the outer/open coast areas of the estuary. These change to the more moderately exposed sandy shores and then to sheltered muddy shores within the main body of the estuary and up into the tidal rivers.

Habitats within the Humber Estuary include Atlantic salt meadows and a range of sand dune types in the outer estuary, together with Sandbanks which are slightly covered by sea water all the time, extensive intertidal mudflats, *Salicornia* and other annuals colonising mud and sand, and Coastal lagoons. As salinity declines upstream, reedbeds and brackish saltmarsh communities fringe the estuary. These are best-represented at the confluence of the Rivers Ouse and Trent at Blacktoft Sands.

Upstream from the Humber Bridge, the navigation channel undergoes major shifts from north to south banks, for reasons that have yet to be fully explained. This section of the estuary is also noteworthy for extensive mud and sand bars, which in places form semi-permanent islands. The sand dunes are features of the outer estuary on both the north and south banks particularly on Spurn peninsula and along the Lincolnshire coast south of Cleethorpes. Examples of both Fixed dunes with herbaceous vegetation (`grey dunes`) and Shifting dunes along the shoreline with *Ammophila arenaria* (`white dunes) occur on both banks of the estuary and along the coast. Native sea buckthorn Dunes with *Hippophae rhamnoides* also occurs on both sides of the estuary.

Significant fish species include **river lamprey** *Lampetra fluviatilis* and **sea lamprey** *Petromyzon marinus* which breed in the River Derwent, a tributary of the River Ouse. **Grey seals** *Halichoerus grypus* come ashore in autumn to form breeding colonies on the sandy shores of the south bank at Donna Nook.

Qualifying Features

Annex I habitats that are a primary reason for selection of this site

- **1130 Estuaries**

The Humber is the second-largest coastal plain **estuary** in the UK, and the largest coastal plain estuary on the east coast of Britain. It is a muddy, macro-tidal estuary, fed by the Rivers Ouse, Trent and Hull, Ancholme and Graveney. Suspended sediment concentrations are high, and are derived from a variety of sources, including marine sediments and eroding boulder clay along the Holderness coast. This is the northernmost of the English east coast estuaries whose structure and function is intimately linked with soft eroding shorelines. Habitats within the Humber Estuary include **1330 Atlantic salt meadows** and a range of sand dune types in the outer estuary, together with subtidal sandbanks (**H1110 Sandbanks which are slightly covered by sea water all the time**), extensive intertidal mudflats (**H1140 Mudflats and sandflats not covered by seawater at low tide**), glasswort beds (**H1310 *Salicornia* and other annuals colonising mud and sand**), and **1150 coastal lagoons**. As salinity declines upstream, reedbeds and brackish saltmarsh communities fringe the estuary. These are best-represented at the confluence of the Rivers Ouse and Trent at Blacktoft Sands. Upstream from the Humber Bridge, the navigation channel undergoes major shifts from north to south banks, for reasons that have yet to be fully explained. This section of the estuary is also noteworthy for extensive mud and sand bars, which in places form semi-permanent islands. Significant fish species include **1099 river lamprey *Lampetra fluviatilis*** and **1095 sea lamprey *Petromyzon marinus*** which breed in the River Derwent, a tributary of the River Ouse.

- 1140 **Mudflats and sandflats not covered by seawater at low tide**

the Humber Estuary includes extensive intertidal **mudflats and sandflats not covered by seawater at low tide**. Upstream from the Humber Bridge, extensive mud and sand bars in places form semi-permanent islands.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

- 1110 **Sandbanks which are slightly covered by sea water all the time**
- 1150 **Coastal lagoons** * Priority feature
- 1310 **Salicornia and other annuals colonizing mud and sand**
- 1330 **Atlantic salt meadows (Glauco-Puccinellietalia maritimae)**
- 2110 **Embryonic shifting dunes**
- 2120 **"Shifting dunes along the shoreline with Ammophila arenaria (""white dunes"")"**
- 2130 **"Fixed coastal dunes with herbaceous vegetation (""grey dunes"")"** * Priority feature

- **2160 Dunes with Hippophae rhamnoides**

Annex II species that are a primary reason for selection of this site

- Not Applicable

Annex II species present as a qualifying feature, but not a primary reason for site selection

- **1095 Sea lamprey** *Petromyzon marinus*

- **1099 River lamprey** *Lampetra fluviatilis*
- **1364 Grey seal** *Halichoerus grypus*

Annex B Plans and Projects assessed for In-Combination effects

Table C.1 Folkstone and Hythe District Council Plans and Projects assessed

Reference	Date	Address	Description	Decision
Adopted Development Plan for Folkestone and Hythe District (2025)	2025		The Adopted Development Plan comprises the Core Strategy Review (2022), Places and Policies Local Plan (2020), The St. Mary in the Marsh Neighbourhood Plan (2019) and Kent Waste and Minerals Local Plan, which all set out visions, objectives and development strategy for development in the local district, including in the marine environment	
Folkestone and Hythe District Council Local Plan and Strategy Review (2025b)	2025		The Local Plan and Strategy Review sets out district priorities for nature and the wider environment. Policies include provision for the environment, including Policy NE2 Biodiversity and Policy NE8 Integrated Coastal Zone Management	
South Inshore Marine Plan	2018		Covers an area of around 20,000 square kilometres of inshore and offshore waters across 1,000 kilometres of coastline from Folkestone to the river Dart. The Plan identifies twelve objectives which provides a framework for development within its defined area aiming to protect the marine environment	
25/1883/FH	08/10/2025	Dungeness Borrow Pit, Dungeness, Romney Marsh, Kent, TN29 9NA	Consultation regarding (KCC/FH/0128/2025) Continuation of seasonal shingle recycling operations beyond October 2026, for the purpose of recovering material used in the maintenance of flood defences at Dungeness.	Pending

Reference	Date	Address	Description	Decision
25/1800/FH/PA	26/09/2025	DUNGENESS B POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PX	Determination as to whether the prior approval of the Local Planning Authority is required under Schedule 2, Part 11, Class B of the Town and Country Planning (General Permitted Development) (England) Order 2015 for the deconstruction of building 205 - (CNC building) and building 212 (spare generator transformer building).	Pending
25/1502/FH	18/08/2025	DUNGENESS A POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PP	Proposed deconstruction of boiler house complexes and external alterations to reactor buildings.	Pending
25/1541/FH	12/08/2025	Dungeness Borrow Pit, Dungeness, Romney Marsh, Kent, TN29 9NA	Consultation regarding (KCC/FH/0126/2025) Details of a final restoration plan pursuant to Condition 21 of planning permission SH/11/852.	No objections
25/1359/FH/PA	22/07/2025	DUNGENESS B POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PX	Determination as to whether the prior approval of the Local Planning Authority is required under Schedule 2, Part 11, Class B of the Town and Country Planning (General Permitted Development) (England) Order 2015 for the deconstruction of the Visitors Centre.	PA not required
25/0857/FH	04/06/2025	BOULDERWALL FARM, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PN	Create 5 wetland scrapes and use this material to create islands for waders and wildfowl. Install water retention bunds to hold water back into the spring and alleviate pressure on the local drainage system. Installation of a small viewing mound on the eastern side.	Approved
25/0984/FH	27/05/2025	DUNGENESS B POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PX	Erection of a single storey modular building.	Approved
25/0123/FH/PA	24/01/2025	DUNGENESS B POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PX	Deconstruction Works under the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) Schedule 2, Part 11, Class B for the deconstruction of building no1 off-site delivery point.	PA not required

Reference	Date	Address	Description	Decision
24/2001/FH	20/12/2024	Dungeness Borrow Pit, Dungeness, Romney Marsh, TN29 9NA	Request for a Scoping Opinion for continuation of the shingle recycling operations at Dungeness post 2026 (KCC/SCO/FH/0193/2024)	Advice given
24/1247/FH	09/08/2024	DUNGENESS B POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PX	Lawful development certificate submitted under Part 4 of the GPDO (proposed) for the temporary installation of two trailers to be used as a mobile containerised condensate polishing plant and a mobile gas transfer membrane plant. In addition to these the temporary installation, of a small container to house the analyser equipment, two small pumps, low level pipe racks and four small skids. All equipment is temporary and to be removed when no longer required.	Lawful
24/1115/FH/CON	16/07/2024	WESTVIEW COTTAGE, DUNGENESS ROAD, DUNGENESS, ROMNEY MARSH, TN29 9NF	Approval of details pursuant to conditions 8 (ecology mitigation), 9 (CEMP), 12(a) (contamination desk top study of planning permission 21/2513/FH	Approved
24/0845/FH/CON	08/11/2024	DUNGENESS A POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PP	Approval of details pursuant to condition 3 (surface water drainage verification report) of planning permission 22/1146/FH	Approved
2024/0549/FH/PA	15/04/2024	DUNGENESS B POWER STATION, DUNGENESS ROAD, LYDD, ROMNEY MARSH, TN29 9PX	Deconstruction Works under the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) Schedule 2, Part 11, Class B. Works include the deconstruction and removal of a store building.	PA not required
24/0351/FH/CON	07/03/2024	Dungeness A Power Station, Dungeness Road, Lydd, Romney Marsh, TN29 9PP	Approval of details pursuant to Conditions 5 (Environmental Risk Assessment) & 6 (Bird Survey) of planning permission 22/1932/FH	Approved
23/1729/FH/PA	14/11/2023	Dungeness A Power Station, Dungeness Road, Lydd, Romney Marsh, TN29 9PP	Determination as to whether the prior approval of the Local Planning Authority is required under Schedule 2, Part 11, Class B of the Town and Country Planning (General Permitted Development) (England) Order 2015 for the	PA not required

Reference	Date	Address	Description	Decision
			deconstruction of sewage treatment plant comprising of six buildings.	
23/1728/FH	01/11/2023	Dungeness A Power Station, Dungeness Road, Lydd, Romney Marsh, TN29 9PP	Widen access road at the North West corner of the site	Approve with conditions
23/1174/FH/CON	13/10/2023	Dungeness B Power Station, Dungeness Road, Lydd, Romney Marsh, TN29 9PX	Approval of details pursuant to condition 1 (Mitigation Strategy) of planning permission 23/0836/FH/PA	Approved
23/1025/FH/SCR	27/06/2023	Dungeness A Power Station, Dungeness Road, Lydd, Romney Marsh, TN29 9PP	EIA Screening Opinion under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 in respect for the deconstruction of boiler house complexes & external alterations to reactor building	Advice given
23/0836/FH/PA	31/05/2023	Dungeness B Power Station, Dungeness Road, Lydd, Romney Marsh, TN29 9PX	Determination as to whether the prior approval of the Local Planning Authority is required under Schedule 2, Part 11, Class B of the Town and Country Planning (General Permitted Development) (England) Order 2015 for the deconstruction of 15 buildings and 1 reserve feedwater tank.	Approved
		Dungeness Borrow Pit, Dungeness, Romney Marsh, Kent, TN29 9NA	Shingle recycling for the purpose of flood defence	Approved

Table C.2 Kent County Council Plans and Projects assessed

Reference	Date	Address	Description	Decision
FH/25/1883 (KCC/FH/0128/2025)	03/10/2025	Dungeness Borrow Pit, Dungeness, Romney Marsh, Kent, TN29 9NA	Continuation of seasonal shingle recycling operations beyond October 2026, for the purpose of recovering material used in the maintenance of flood defences at Dungeness	Pending
SH/11/852/R21 (KCC/FH/0126/2025)	06/08/2025	Dungeness Borrow Pit, Dungeness, Romney Marsh, Kent, TN29 9NA	Details of a final restoration plan pursuant to Condition 21 of planning permission SH/11/852	Pending
FH/22/1310 (KCC/FH/0114/2022)	16/06/2022	Dungeness A Power Station, Dungeness Road, Romney Marsh, Kent TN29 9PP	Erection of 3 no. replacement buildings to be used to relocate waste management facilities for the packaging and temporary storage of radioactive waste, together with enabling works	Approved
FH/19/860 (KCC/FH/0128/2019)	12/06/2019	Land to the east of Dungeness Road, Dungeness, Romney Marsh, Kent	Full planning permission for the construction and operation of a waste collection point	Approved
SH/11/852 (KCC/SH/0381/2011)	09/09/2011	Dungeness Borrow Pit, Dungeness, Romney Marsh, Kent, TN29 9NA	Shingle recycling for the purpose of flood defence	Approved

Appendix 19A Water Framework Directive Screening and Scoping Assessment

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Tables

1. Introduction

1.1 Background

1.1.1 This Water Framework Directive (WFD) Screening and Scoping Assessment has been produced alongside the Environmental Impact Assessment (EIA) Scoping Report (hereafter referred to as the 'EIA Scoping Report') for the decommissioning and dismantling of the Dungeness B Nuclear Power Station (hereafter referred to as the 'Proposed Works').

1.1.2 The EIA Scoping Report supports a request by the Applicant, under Regulation 6 (1) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (as amended) (hereafter referred to as 'EIADR')[1], for a written Pre-application Opinion to be provided by ONR with respect to the scope of the EIA to be reported in the Environmental Statement (ES) for the Proposed Works.

1.1.3 The elements that are expected to be included in the Proposed Works are described in **Chapter 2: The Decommissioning and Dismantling Process** of the EIA Scoping Report.

Areas described in this WFD Screening and Scoping Assessment

1.1.4 For the purposes of this WFD Screening and Scoping Report, the Works Area is divided into following areas, as shown on **Figure 1-1: The Works Area** of the EIA Scoping Report:

- **Area A** – the main area of the existing Dungeness B, comprising all land and associated infrastructure within the existing double security fence boundary;
- **Area B** – the area associated with the B1 Hanger, an existing storage hanger, laydown area and conventional waste storage compound;
- **Area C** – the area associated with the existing back-up cooling water infrastructure at the Long Pit, an existing onshore waterbody; and
- **Area D** – the area associated with the existing cooling water infrastructure comprising the intake and outfall culverts located within the English Channel and foreshore

1.2 Study Area

1.2.1 For the purposes of this assessment, and consistent with the **Chapter 19: Water Environment and Flood Risk** of the EIA Scoping Report, a general Study Area of approximately 1 kilometre (km) from the Works Area has been considered to identify water bodies that are hydrologically connected to the Proposed Works and therefore have the potential to be impacted. However,

[1] The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2018. (online) Available at: https://www.legislation.gov.uk/uksi/2018/834/contents/made [Accessed 31/10/2025].

given that water quality impacts may propagate downstream to coastal WFD waterbodies, where relevant, the assessment also considers a wider Study Area to as far downstream as a potential impact may influence the quality or quantity of water available for any water features. Additionally, as the assessment is progressing, the Study Area will be kept under review, especially as coastal water quality impacts may propagate on tidal currents.

1.2.2 Interactions between the Works Area and the Study Area with WFD water bodies are illustrated in **Figure 19-1: Surface Water Receptors and their Attributes** and **Figure 19-2: Groundwater Features and their Attributes** in the EIA Scoping Report.

1.2.3 The Study Area for marine ecology is based on the largest likely Zone of Influence (ZoI) for the proposed marine works in the Greater North Sea and English Channel. An initial 8km radius covers most marine ecological features based on tidal and sediment movement. For highly mobile species like migratory fish and marine mammals, the Study Area extends to 50km or more, including relevant protected sites and species' foraging ranges up to several hundred kilometres (see **Table 1-1** and **Chapter 13: Marine Ecology** of the EIA Scoping Report).

Table 1-1: Marine Ecology Study Areas

Receptor Group	Study Area	Source
Marine Ecology	8km	ABPmer UK Marine Renewables Atlas (2018)[2]
Migratory Fish (refined Study Area)	50km whilst also adopting a regional approach (see **Plate 13-1** in **Chapter 13: Marine Ecology** of the EIA Scoping Report)	ABPmer (2014)[3]
Marine Mammals (refined Study Area)	North Sea Marine mammal management unit (Harbour Porpoise) South East England Seal Management Unit	Inter-Agency Marine Mammal Working Group (IAMMWG) (2023), Special Committee on Seals (SCOS) (2024)[4]

1.3 The Water Framework Directive

1.3.1 The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017[5], hereafter referred to as the 'WFD', aims to protect and enhance the water environment.

1.3.2 The WFD takes a holistic approach to sustainable management of the water environment by considering interactions between surface water, groundwater and water-dependent ecosystems. Ecosystem conditions are evaluated

[2] ABPmer. (2018). UK Marine Renewables Atlas. (online). Available at: https://www.renewables-atlas.info/explore-the-atlas/. [Accessed: 17/12/2025].
[3] ABPMer. (2014). Wave and Tidal Further Leasing. HRA Principles Document, Screening Report and Appropriate Assessment Information Report. Crown Estate.
[4] Inter-Agency Marine Mammal Working Group (IAMMWG). (2023). Review of Management Unit boundaries for cetaceans in UK waters. JNCC Report 734, JNCC, Peterborough, ISSN 0963-8091. (online) Available at: https://hub.jncc.gov.uk/assets/b48b8332-349f-4358-b080-b4506384f4f7. [Accessed: 17/12/2025].
[5] Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. (online) Available at: https://www.legislation.gov.uk/uksi/2017/407 [Accessed 31/10/2025].

according to interactions between classes of biological, chemical, physico-chemical and hydromorphological elements known as 'Quality Elements'.

1.3.3 Under the WFD, ‘water bodies’ are the basic management units, defined as all or part of a river system or aquifer. Water bodies form part of a larger ‘river basin district’ (RBD), for which ‘River Basin Management Plans’ (RBMPs) are used to summarise baseline conditions and set broad improvement objectives. RBMPs are produced every six years, in accordance with the river basin management planning cycle. The current RBMPs are Cycle 3 published in 2022. The RBMP of relevance to the Works Area is the South East RBMP[6].

1.3.4 In England, the Environment Agency is the competent authority for implementing the WFD, although objectives are delivered in partnership with other public bodies and private organisations, for example local planning authorities, water companies, rivers trusts, and private landowners and developers.

1.3.5 The Environment Agency is also responsible for managing flood risk and other activities on Main Rivers. Lead Local Flood Authorities (LLFAs) or Internal Drainage Boards (IDBs) are typically responsible for consenting activities that may affect the flow of Ordinary Watercourses. Local planning and highway authorities are typically responsible for highways drains, and landowners are typically responsible for ditches and watercourses within their property, including piped watercourses and culverts (i.e. they have riparian ownership). While the Environment Agency is ultimately responsible for enforcing the WFD on any water body, local planning authorities and other regulating bodies are required to consider RBMPs when exercising their statutory functions. The LLFA for the Works Area is Kent County Council, whilst the IDB is Romney Marshes Area IDB.

1.3.6 As part of its statutory consultee role on EIADR [1] applications and environmental permitting (under the Environmental Permitting Regulations (England and Wales) 2016)[7], the Environment Agency and WFD-partnering organisations must consider whether proposals have the potential to:

- Cause a deterioration of any quality element of a water body from its current status or potential; and/or
- Prevent future attainment of good status or potential where not already achieved.

1.3.7 Regulation 33 of the WFD states that public bodies “*must, in exercising their functions so far as affecting a river basin district, have regard to - (a) the river basin management plan for that district as approved under regulation 31, and (b) any supplementary plan prepared under regulation 32*”. The Proposed Works must, therefore, reflect water body improvement priorities as outlined in the South East RBMP[6].

[6] Environment Agency (2022) South East river basin district river basin management plan: updated 2022 (online). Available at: https://www.gov.uk/guidance/south-east-river-basin-district-river-basin-management-plan-updated-2022 [Accessed 31/10/2025].
[7] The Environmental Permitting (England and Wales) Regulations 2016. (online) Available at: https://www.legislation.gov.uk/uksi/2016/1154 [Accessed 31/10/2025].

1.3.8 In determining whether a development is compliant or non-compliant with the WFD objectives for a water body, the Environment Agency and partnering organisations must also consider the conservation objectives of any Protected Areas (i.e. European sites or water dependent Sites of Special Scientific Interest (SSSIs)) and adjacent WFD water bodies, where relevant.

2. Methodology

2.1 WFD Methodology

2.1.1 There are no fixed methods for WFD assessment. The nature of the water environment and the breadth of the legislation means that assessments are tailored on a case-by-case basis. Notwithstanding this, the following general guidance is available which has been applied for this assessment:

- Environment Agency (2016). Water Framework Directive risk assessment. How to assess the risk of your activity[8];
- Environment Agency (2016). Protecting and improving the water environment. Water Framework Directive compliance of physical works in rivers[9]; and
- The Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive[10].

2.1.2 WFD assessments generally use a stepwise approach, consisting of screening, scoping and impact assessment phases that mirrors the EIA process in order to:

- Rationalise the levels of WFD assessment and impact mitigation that are required; and
- Verify that developments meet the requirements of the WFD.

2.1.3 This general approach is described by the Planning Inspectorate (2024): Advice on the Water Framework Directive[9] which is briefly summarised below. The stepwise approach means that not all WFD assessment stages are necessarily required. At each stage it is important to consult with the Environment Agency. The first consultation will take place following submission of the EIA Scoping Report.

[8] Environment Agency, (2016). Water Framework Directive risk assessment: How to assess the risk of your activity. [online] Available at: https://www.gov.uk/government/publications/water-framework-directive-how-to-assess-the-risk-of-your-activity [Accessed 31/10/2025]
[9] Environment Agency (2016). Protecting and improving the water environment. Water Framework Directive compliance of physical works in rivers
[10] Planning Inspectorate, (2024). Advice on the Water Framework Directive. Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-the-water-framework-directive [Accessed 31/10/2025].

Stage 1: Screening

2.1.4 Screening identifies the extent to which a development is likely to affect water bodies. Where impacts are 'screened out' from further assessment, this should be clearly justified.

2.1.5 The screening stage should:

- Show all relevant WFD water bodies on a map or plan;
- Identify the zone or zones of influence based on specific activities and/or characteristics of a development that could affect the identified water bodies; and
- Identify any specific activities and/or characteristics of the development that have been screened out and why.

2.1.6 Screening may find that no further consideration of WFD matters is needed. For example, where water bodies are not located within the development's zone of influence or where no impact pathways exist.

Stage 2: Scoping

2.1.7 After screening, the scope of further assessment is determined if required.

2.1.8 The scoping stage includes:

- An initial assessment to identify the risks from a development to receptors within the zone of influence, based on the relevant water bodies and their water quality elements; and
- Identification of those water bodies where a more detailed impact assessment is needed.

Stage 3: Impact Assessment

2.1.9 If required, an impact assessment comprises a detailed assessment of the water bodies and activities carried forward from the WFD screening and scoping stages. It is set within the context of the appropriate RBMPs and includes:

- Identification of water bodies that are potentially affected, directly or indirectly, or at risk from a development;
- The baseline characteristics of the water bodies affected;
- A description of the development and the relevant aspects considered within the scope of the WFD assessment;
- The methods used to determine and quantify the scale of WFD impacts;
- An assessment of the risk of deterioration, where Article 4.7 may apply if the development may risk deterioration in status or prevent achievement of good status;
- An explanation of any mitigation required and how it is to be secured;
- An explanation of any enhancements and/or positive contributions to the RBMP objectives proposed and how they would be secured;

- Where a derogation is required, information to justify the case for derogation; and
- Identification of any areas of non-compliance.

2.1.10 This report considers the Proposed Works and covers Stages 1 and 2 of the WFD assessments process only. A Stage 3 WFD impact assessment will be completed and discussed with the Environment Agency prior to the submission of the application of consent to the Office of Nuclear Regulation (ONR).

Mitigation Commitments

2.1.11 Proposed mitigation activities relied upon to demonstrate WFD compliance at any of the stages referred to above must be appropriately defined and sufficiently secured.

WFD Compliance Checks

2.1.12 All of the staged assessments summarised above consider potential risk sources, pathways and receptors with regards to the following checks for compliance with WFD objectives:

- Works will not lead to deterioration in the quality of a water body;
- Works will not prevent the future improvement of a water body;
- Opportunities have been sought to improve the water environment; and
- Works will not impact a protected nature conservation area or priority habitat.

2.1.13 The above consider the conservation objectives of Protected Areas where these maybe more stringent that WFD objectives, as well as cumulative impacts and impacts on adjacent water bodies where necessary.

WFD Derogation

2.1.14 Where WFD impact assessment identifies potential risks to WFD objectives that cannot reasonably be avoided or mitigated, the legislation includes mechanisms for derogation. WFD Regulation 17 and Regulation 19 set out stringent and ‘last resort’ processes for WFD derogation that are case specific and would be beyond the scope of this assessment. Case review of any proposed justification by an applicant would be a matter for the Secretary of State and is likely to require a substantial body of multi-disciplinary evidence.

2.2 Desk Study

2.2.1 A desk-based study has been carried out to capture information pertaining to the Proposed Works and support the understanding of water environment baseline conditions. Review of relevant information relating to the Study Area was undertaken to develop a baseline overview for WFD catchments, water bodies and surrounding areas. This focuses on WFD classification of relevant water bodies. For a full summary of the water environment baseline

conditions for the Study Area, refer to **Chapter 19: Water Environment and Flood Risk** of the EIA Scoping Report.

2.3 Field Survey

2.3.1 A site walkover survey was undertaken on the 13th November 2025 by two water scientists of the Dungeness B site and the surrounding area to inform **Chapter 19: Water Environment and Flood Risk** of the EIA Scoping Report. The weather was cool during the site walkover, but remained dry throughout.

2.3.2 **Table 2-1** summarises the field observations of the waterbodies that were inspected during the walkover survey.

Table 2-1: WFD Observations Made During the Site Walkover Survey

Water Body (WFD ID)	Site Walkover Comments	Photo of Water Feature
Sussex East Coastal Water Body (GB640704540002)	The Sussex East Water Body lies immediately south of the Area B of the Works Area and Area D of the Works Area is within this waterbody. A substantial engineered embankment separates the site from the coastal frontage, the embankment appears benched and is surfaced with shingle, consistent with coastal protection works in this area. Additionally, large rock armour (possible riprap) is positioned on the landward-facing slope, likely serving as erosion protection. Hydrologically, direct interaction between the Works Area and the tidal waters were prevented by the embankment and no direct surface drainage connections were observed during the site visit.	
Long Pit Water Body (GB30745064)	Long Pit is situated directly north of the Area C of Works Area and forms one of the elongated waterbodies characteristics of former gravel extraction areas at Dungeness. The lake is narrow and linear, with an earth embankment dividing it approximately halfway along its length. Gravel substrate was visible in accessible shallow margins, suggesting relatively coarse bed material. A concrete pump house is present mid-way, historically associated with the back-up cooling system infrastructure for the Works Area. Water clarity was good at the time of survey, with no visible turbidity or algal issues. Vegetation lines both sides of the lake, comprising a mix of marginal and terrestrial plants, whilst there was no significant in-channel aquatic vegetation was observed within the visible sections.	

Water Body (WFD ID)	Site Walkover Comments	Photo of Water Feature
Burrows Pit (GB30745060)	Burrows Pit lies to the north-west of the Works Area and is one of the larger lake features in the immediate surroundings. It forms part of the network of waterbodies within the Dungeness National Nature Reserve (NNR). The lake supports continuous marginal vegetation around its perimeter, potentially providing habitat for a range of wetland species. The presence of managed vegetation suggests ongoing maintenance, likely by the reserve management body. Additionally, water quality and depth appeared good during the inspection, with no signs of stagnation or excessive algal growth.	
Dungeness National Nature Reserve (NNR)	The wider reserve contains numerous smaller lakes and drainage channels, many of which are former extraction pits or modified waterbodies. Water levels across accessible features appeared stable with generally good water clarity. Several features show evidence of past modification, such as straightened edges, embankments, or uniform depths. The mosaic of waterbodies supports diverse habitat types, likely benefiting a broad range of plant and animal species typical of the Dungeness landscape.	

Water Body (WFD ID)	Site Walkover Comments	Photo of Water Feature
Dengemarsh Sewer (GB107040013450)	Dengemarsh Sewer is positioned north-west of the Works Area, with the watercourse running parallel to Dengemarsh Road before discharging to the English Channel. **Upstream/ Mid-Reach Observations (Dungeness Road Corridor)** The upstream section of the sewer showed moderate to strong flows, indicating good conveyance and hydraulic energy and the water depth and clarity were generally good. The watercourse is heavily modified, with steep engineered banks and clear separation from the surrounding floodplain. There was reed growth present along channel margins, but appeared limited to narrow strips and the bed substrate consisted mainly of gravels with minimal aquatic vegetation. **Downstream Reach (Along Dengemarsh Road Toward Coast)** The downstream section of the sewer had similar channel characteristics to the upstream section. Additionally, localised over-widening and deepening appear at various points, influencing flow distribution. Bridges and culverts were also noted to disrupt flow patterns, creating localised turbulence and impoundment zones.	 

Water Body (WFD ID)	Site Walkover Comments	Photo of Water Feature
	Coastal Discharge Point Near the coastline, flows are controlled by an in-channel flume structure, likely used to regulate levels and discharge rates. The watercourse becomes fully culverted prior to reaching the outfall into the English Channel. The outfall structure itself is large and is constructed of concrete and sheet piling. This confirms significant modification at the tidal interface.	

2.3.3 Further site walkovers surveys will be undertaken and reported in the ES and WFD Impact Assessment, as applicable.

2.3.4 Future walkover surveys will focus on surface watercourses within the Study Area as well as the coastal shoreline, observing their current character and condition, the presence of existing risks, and seek to identify any potential pathways for impacts associated with the Proposed Works. Additionally, an intertidal walkover, subtidal grab samples and a subtidal drop-down video survey are proposed as detailed in **Chapter 13: Marine Ecology** of the EIA Scoping Report.

2.3.5 Assessments of coastal sediments, both mobilisation and suspension, as well as assessments of changes to seabed and beach morphology, will be considered as part of the EIA (refer to **Chapter 8: Coastal Processes** of the EIA Scoping Report). Further to this, the water environment impact assessment will review available relevant seabed sediment data and, if necessary, the need for targeted marine ground investigations may be considered. If undertaken, sampling may need to be agreed with the Marine Management Organisation (MMO) and the Centre for Environment, Fisheries and Aquaculture Science (Cefas) in a Sediment Management Plan, and compared with Action Levels 1 and 2. These observations would then be considered within the context of the WFD to establish a baseline for each of the Hydromorphological Quality Elements.

2.3.6 At the time of writing, no freshwater ecology surveys are planned for Long Pit or aquatic ecology surveys for coastal waters. **Chapter 18: Terrestrial Ecology** of the EIA Scoping Report states that an otter (*Lutra lutra*), Eurasian beaver (*Castor fiber*) and water vole (*Arvicola amphibius*) survey of the back-up cooling water infrastructure located on the Long Pit and the surrounding 150m was completed during September 2025. A second survey visit will be carried out in spring 2026.

2.3.7 Following consultation with Natural England, a Great crested newt (*Triturus cristatus*) presence/ likely absence survey, using the environmental DNA (eDNA) approach, was completed in May 2025 to determine the presence or likely absence of this species from the Long Pit water bodies. An additional out of season eDNA survey of a water body located to the west of the Northern Approach Road was completed in February 2026, reflecting the drying of this water body by March 2025.

2.3.8 The Proposed Works is not considered likely to have an impact on great crested newt. There are no areas suitable for otter, Eurasian beaver and water vole other than the wetland habitats of the Long Pit, adjacent to the back-up cooling water infrastructure, although there is no evidence of these species at this location to date. If additional surveys in 2026 confirm they are present, the Proposed Works could result in disturbance to these species or the damage of water vole burrows. If impacts are predicted to occur, then mitigation measures would be needed to ensure legislative compliance.

2.3.9 Any opportunistic sightings of seals on Dungeness Beach and cetaceans in offshore waters will be recorded, including their location. If this indicates the requirement for a full seal survey, this will be carried out in future stages of the project.

2.3.10 At this stage, and taking into consideration the nature of the Proposed Works and degree of risk to the water environment, no water quality monitoring or aquatic ecological surveys are proposed. Where available, background data from routine Environment Agency monitoring that underpins the current WFD classifications for each watercourse will be used to inform the baseline. This is considered an appropriate and standard approach. Water quality monitoring is only effective when there is a clear purpose for it and may require monitoring over a long period of time to ensure reliable and robust results, which is not considered the case here. Therefore, no water quality sampling is proposed to support the water environment impact assessment and WFD impact assessment.

2.4 Assumptions and Limitations

2.4.1 This WFD Screening and Scoping Assessment is a preliminary appraisal based on available information at the time of preparing the EIA Scoping Report. A final assessment will be undertaken as part of the EIA and reported in the ES and WFD impact assessment.

2.4.2 Where there is uncertainty in the design, reasonable assumptions have been made, and these are described at relevant points within this preliminary assessment. Further assessment or updates may therefore be required in the future should the work methods be adapted or it is determined that proposed embedded mitigation cannot be implemented as currently proposed.

2.4.3 As detailed in **Chapter 19: Water Environment and Flood Risk** of the EIA Scoping Report, a request for water resources and WFD information not freely available online will be requested from the Environment Agency in due course and used to inform the ES and WFD impact assessment.

2.4.4 The description of the Proposed Works as described in **Chapter 2: The Decommissioning and Dismantling Process** of the EIA Scoping Report is unlikely to change, however, methodologies will continue to be developed based upon environmental and technical factors. The use of the Rochdale Envelope approach (refer to **Chapter 5: EIA Methodology** of the EIA Scoping Report) will ensure that the likely significant effects of the Proposed Works do not exceed the reasonable worst-case scenario presented in the ES. This is of particular importance when considering impacts associated with watercourse crossings, the quality of surface water runoff, impacts to hydromorphology and channel hydraulics. It is assumed that the protection of water environment receptors will be considered within the iterative design process, including the choice of crossing methods and the use of best practice construction methodologies.

3. WFD Screening

3.1 WFD Screening Overview

3.1.1 The purpose of the WFD screening stage is to identify a zone of influence of the Proposed Works and to determine whether that influence has the potential to adversely impact upon WFD water body receptors. The

screening stage also identifies specific components of the Proposed Works that could affect receptor water bodies' WFD status and carries them forward to subsequent stages of the assessment process. Water body receptors or activities that are screened out will not be carried forward, with justification being provided.

3.2 Screening of WFD Water Bodies

3.2.1 The Proposed Works have the potential to interact with WFD surface water and groundwater bodies. WFD screening of these water bodies is provided in **Table 3-1** and these are shown in **Figure 19-1: Surface Water Receptors and their Attributes**. Smaller tributaries within each of the WFD water body catchments that may be impacted by the Proposed Works are considered in this assessment. Any other remaining downstream water bodies not mentioned below are considered sufficiently far downstream of the Proposed Works to avoid impacts or would not interact with the Proposed Works and are therefore screened out of further assessment. For this screening exercise a zone of influence of 1 km, in line with the Study Area, has been used, as shown in **Figure 19-1: Surface Water Receptors and their Attributes**.

Table 3-1: Screening of WFD Water Bodies

Water Body (WFD ID)	Water Body Type	Screening Outcome	Justification
Dengemarsh Sewer (GB107040013450)	River	Out	Actual watercourse not within the Study Area although the catchment is - despite this, there are no obvious flow paths to the watercourse from the Proposed Works.
Long Pit (GB30745064)	Lake	In	Located within Study Area with the back-up cooling system located on its western bank. The Proposed Works would occur at the bank and possibly within the water body due to the use of in-lake infrastructure. Removal of infrastructure would remove existing pressures.
Burrows Pit (GB30745060)	Lake	Out	Located approximately 150m north-west of Study Area with no obvious flow paths from the Works Area.
Kent Romney Marsh (GB40702G503900)	Groundwater	In	Underlies the Works Area and Study Area and may be impacted if there were any excavations or construction of foundations creating new pathways for pollutants. It is possible that there are structures and facilities as part of the current power station that are underground and which would need to be decommissioned.
Sussex East (GB640704540002)	Coastal	In	Located within the Study Area and located in a direct flow path from the Works Area associated with the Marine Works.
Kent South (GB640704540001)	Coastal	In	Located within the Study Area, and located approximately 750m to the

Water Body (WFD ID)	Water Body Type	Screening Outcome	Justification
			east of the Works Area at the nearest point. Tidal excursions taken from **Chapter 8: Coastal Processes** of the EIA Scoping Report indicate a cycle of approximately 12km north-east from Dungeness, which would incorporate the Kent South Coastal Water Body.

3.3 Screening of Activities

3.3.1 The Proposed Works comprise a number of activities, some of which would present a potential risk to the WFD status of water bodies. These components and activities are listed in **Table 3-2** together with a screening assessment. The screening assessment focuses on Phase 1 activities, later phases (e.g. Phase 2 and 3 activities) have also been screened, but due to a lack of information to date, the assessment for these later phases are qualitative.

3.3.2 At this early assessment stage, all activities have been screened in and will be reassessed once further details regarding activities are known, and following selection of the Proposed Works strategy.

3.3.3 In addition to these potential risks, there would be long term benefits to the water environment in the area due to the removal of infrastructure, the removal of discharges and a reduction in pollution risk, following the completion of the Proposed Works. The possible restoration of the site post Proposed Works would also benefit the local water environment and aquatic wildlife.

Table 3-2: Summary of Screening of Proposed Works Activities

Activity/ Component	Description	Screening Outcome	Justification
Early Safestore Strategy			
Phase 1			
New infrastructure requirements	A range of infrastructure is anticipated to be required to support the decommissioning and dismantling process at Dungeness B. This section outlines the new infrastructure required during the Initial Decommissioning Works. During decommissioning, both radioactive and non-radioactive waste would be produced. All waste would be managed in line with government policy, legislation, the waste management hierarchy, and the relevant regulatory framework. For radioactive waste, extra steps are required to make sure it is handled and stored safely, protecting people and the environment. Radioactive waste may be managed using a combination of on-site and/or off-site facilities. Decisions on whether to construct new facilities, refurbish existing assets, or use shared facilities within the NDA estate remain open. The Proposed Works include the provision of new buildings within Area A of the Works Area to represent a reasonable worst-case scenario.	In	During the construction of the new infrastructure requirements, there is potential for works to cause temporary and local impacts to water quality from sediment laden runoff or from the accidental spillages of polluting substances. As decisions have not been made on the final infrastructure requirements, at this stage all related activities have been screened in. This decision will be revisited, once further details are available.
Initial Decommissioning Works	During the Initial Decommissioning Works, a ‘Managed Retreat’ programme of deplanting and dismantling would be undertaken across both radiological (“active”) and conventional areas of Dungeness B. This programme involves the progressive removal of plant, equipment, and supporting systems in a controlled sequence, ensuring that risk-reduction is prioritised and that all works proceed within defined radiological and environmental boundaries. Area A of the Works Area contains radiologically controlled (active) areas and conventional non active areas. All de-planting and dismantling activities in the non-active parts of Area A of the Works	In	During the dismantling of infrastructure, there is potential for works to cause temporary and local impacts to water quality from sediment laden runoff or from the accidental spillage of polluting substances, most notably to Long Pit Lake due to its proximity to the water cooling system infrastructure. Morphology may also be temporarily impacted by the works, although in the long term the cessation of cooling water activities may lead to improvements in water quality. There is potential for impacts on groundwater associated with void filling.

Activity/ Component	Description	Screening Outcome	Justification
	Area would therefore involve only conventional (non-radiological) plant, equipment, and buildings. The planned works include removing redundant operational systems, safely removing both hazardous and non-hazardous materials in line with regulatory requirements, and demolishing structures down to existing ground level. Below ground features, such as foundations, base slabs, culverts, service ducts, and other hardstanding, would remain in place. The buildings within Area A of the Works Area are assumed to be dismantled at the end of the Initial Decommissioning Works, with only ground-level hardstanding retained. Area B of the Works Area would primarily serve as a laydown, handling, and storage area to support de-planting and dismantling operations. This includes temporary storage of removed plant items, waste container staging, pre-treatment areas, and logistical zones to facilitate safe and efficient movement of materials prior to off-site transfer or subsequent processing. Within Area C, the back-up cooling water infrastructure is identified for full dismantling during the Initial Decommissioning Works. This structure is non-active and therefore suitable for early removal. Works would involve the complete de-planting of residual equipment, safe isolation and removal of utilities, and controlled demolition of the pumphouse superstructure. It is currently assumed that any below-ground structures associated with the pumphouse would be left in place. The dismantling and decommissioning of the existing cooling water intake structure within Zone D of the Works Area is not within the scope of the Initial Decommissioning Works, with the assumption that this would capped within the terrestrial and marine environment and left in situ. This approach reflects the disproportionate time and cost that would be required to remove a large, reinforced buried marine structure during the Initial Decommissioning Works, as well as the increased safety risks associated with complex in-water demolition.		

Activity/ Component	Description	Screening Outcome	Justification
	Leaving the structure in place also avoids potential short-term environmental impacts on the foreshore and near-shore marine environment that could arise from intrusive works. All demolition waste arisings on-site would be, as far as possible, segregated and sorted at source. The waste would be radiologically clean, and the majority would be non-hazardous. The waste would be transferred to a dedicated area on-site, where they would be separated into different waste types; size-reduced if required, and placed into large off-site transport skips for disposal to permitted facilities. Where possible, levels would be restored to existing ground level using clean site-won recycled concrete material generated from demolition arisings as part of the Proposed Works. The approach to filling of voids is being developed in accordance with the waste hierarchy, optimising the use of site-won material and avoiding the use of imported material where possible, and having regard to groundwater management considerations, definition of waste criteria and associated legislation.		
Safestore construction (Early Safestore Strategy Only)	Following de-planting and decontamination of the reactor building, the residual structures comprising the reactors, boilers and fuel handling facilities would be protected within a robust and secure Safestore structure. The Safestore is intended to function for a period of up to 100 years. The basic function of the Safestore is to fully enclose the residual radioactive plant and structures and provide a safe, secure, weatherproof envelope that can be readily maintained for the safe storage period. The Safestore structure would be based on the existing structure of the reactor building, its shape, structural elements and foundations where possible.	In	Despite the Safestore structure being based on the current reactor structure, and as such likely not impacting the size of the hardstanding area, construction works may have temporary and local impacts to water quality from sediment laden runoff or from the accidental spillage of polluting substances.
Care and Maintenance (Early Safestore Approach only)			
Care and maintenance of Safestore (Early Safestore Approach only)	The Safestore structure would be in place for approximately 55 years under continuous monitoring and periodic care and maintenance. During this period visual inspections, radiological and environmental	In	During this period of relative inactivity, surface water runoff from the Works Area, as well as from any discharges of treated foul and process effluent,

Activity/ Component	Description	Screening Outcome	Justification
	monitoring would take place, as well as general grounds maintenance and any other activities required. During the surveillance period there may be a need for refurbishment or replacement of materials, e.g. of building cladding materials or supports. During this phase, the Interim Conditioned Intermediate Level Waste Store would be maintained, and the condition of the Intermediate Level Waste packaged within the store monitored. Near the end of this phase, the Interim Conditioned Intermediate Level Waste Store would be emptied and the packaged wastes transferred to the Geological Disposal Facility. At the end of the Care and Maintenance phase, the Site Licensee would carry out final decommissioning and dismantling planning, to ensure that all regulatory requirements are in place for the Final Site Clearance phase		would need to be carefully managed through existing permits.
Final Site Clearance			
Waste Management Centre	Construction of a Waste Management Centre. Details regarding the maximum footprint and height are to be confirmed.	In	During the construction of the Waste Management Centre, there is potential for works to cause temporary and local impacts to water quality from sediment laden runoff or from the accidental spillage of polluting substances.
Final site clearance	A programme of site reinstatement works in preparation for the Final Site Clearance phase would occur at the end of the Care and Maintenance phase. Final Site Clearance would involve decommissioning and dismantling of remaining infrastructure, including the Safestore, reactor building, reactor vessels and vaults. Demolition of buildings and infrastructure constructed for decommissioning the reactor building, reactor vessels, vaults will also be undertaken. This phase is estimated to last approximately 15 years in duration and would commence up to 75 years after FFV.	In	During the demolition of the remaining infrastructure, there is potential for works to cause temporary and local impacts to water quality from sediment laden runoff or from the accidental spillage of polluting substances. However, the removal of redundant structures present in and adjacent to water features, the removal of areas of runoff from hard standing/ structures, and the cessation of any discharges of treated foul and/ or process effluent, should result in improvements in water quality and restoration of natural habitats.

Activity/ Component	Description	Screening Outcome	Justification
Final site restoration	During this period, some further land de-contamination may be required to enable the Works Area to reach end state and be de-licensed. The relevant environmental regulator would only agree to release the Works Area from Radioactive Substances Regulation if they are satisfied that radioactive waste disposal has ended and that the Works Area is left in a state that would ensure the protection of people and the environment. Consideration will be given to final landscaping towards the end of Final Site Clearance. Upon de-licensing of the Works Area, the Works Area fences would be removed, and land would be made available for future use.	In	As it is currently uncertain what the plan is for the site post decommissioning, this activity has been screened in. However, restoration of the site is expected to improve habitat quality.

3.4 Baseline

Topography

3.4.1 The topography across the Works Area and the wider Study Area is relatively flat and consistent throughout, being below 10m above ordnance datum (AOD). The Proposed Works would be located wholly within Dungeness on the coastal fringe of the English Channel.

3.4.2 The Study Area is contained within land that is predominantly dis-used with a few isolated residences located across the area[11]. The Dungeness Bird Observatory is located within the Study Area, located approximately 190m north-east of Area A of the Works Area. The Old Dungeness Lighthouse, within the Dungeness Village, is located approximately 560m east of the Area A of the Works Area.

Hydrology

3.4.3 Based on the Meteorological Office website[12], the nearest rainfall station is 'Dungeness' (NGR: TR0815116831; 5m AOD) which is positioned at the Works Area. Using data from this weather station for the period 1991 to 2010, it is estimated that the Study Area experiences approximately 705mm of rainfall per year, with it raining more than 1mm on approximately 115 days per year – such rainfall levels are both low in the UK context. This is relevant to the whole Study Area.

WFD Water Bodies

3.4.4 The following WFD water bodies are located within the Study Area as shown in **Figure 19-1: Surface Water Receptors and their Attributes** and **Figure 19-2: Groundwater Features and their Attributes** in the EIA Scoping Report:

- The Study Area falls within the catchment area of the Dengemarsh Sewer Water Body (GB107040013450);
- There are two coastal water bodies, the Sussex East Water Body (GB640704540002) and the Kent South Water Body (GB640704540001), located downstream of the Dengemarsh Sewer surface water body and so hydrologically connected to it. Additionally the Works Area extends along the shoreline and the existing cooling water intake, whilst the outlet infrastructure is located with the Sussex East Water Body;
- There are two WFD lakes either within the Study Area or within 200m of the Study Area (so included on a precautionary basis). These are Long

[11] Bing (2019) Maps. Available at: https://www.bing.com/maps?cc=gb [Accessed 31/10/2025].
[12] The Met Office (2025) Location-Specific Long-Term Averages. Available at: https://www.metoffice.gov.uk/research/climate/maps-and-data/location-specific-long-term-averages [Accessed 31/10/2025].

Pit Water Body (GB30745064) and Burrows Pit Water Body (GB30745060)[13]; and

- The Works Area is underlain by one groundwater body, Kent Romney Marsh (GB40702G503900).

3.4.5 A summary of the current Cycle 3 (2022 unless stated) WFD classifications for the above listed water bodies is provided in **Table 3-3** to **Table 3-7**[13]. In the 2019 assessment of chemical status, the Environment Agency introduced new methods and expanded their evidence base, leading to all water bodies failing chemical status. These changes rendered the assessment incomparable with previous years' evaluations. The failures are attributed to four groups of global pollutants (uPBTs): polybrominated diphenyl ethers (PBDEs) which are a group of brominated flame retardants; mercury; certain polycyclic aromatic hydrocarbons (PAHs); and perfluorooctane sulfonate (PFOS) a type of per- and polyfluoroalkyl substance (PFAS). These pollutants resulted in a failing classification, as there is no available solution for improvement, rendering it technically infeasible. Consequently, the Environment Agency has determined that, in Cycle 3, the Chemical classification item does not require assessment.

Table 3-3: WFD Classifications of Dengemarsh Sewer Water Body

Classification Item	Dengemarsh Sewer Water Body (River)
Water Body ID	GB107040013450
Hydromorphological designation	Artificial
Ecological	Moderate
Biological quality elements	Good
Physico-chemical quality elements	Moderate
Hydromorphological Supporting Elements	Not High
Hydrological Regime	Does not support good
Supporting elements (Surface Water)	Moderate
Mitigation Measures Assessment	Moderate or less
Specific pollutants	N/A
Chemical	Fail (2019)
Priority hazardous substances	Fail (2019)
Priority substances	Good (2019)
Other pollutants	Does not require assessment

Table 3-4: WFD Classifications of Long Pit Water Body

Classification Item	Long Pit Water Body (Lake)
Water Body ID	GB30745064
Hydromorphological designation	Artificial
Ecological	Moderate (2019)

[13] Environment Agency, (2025). Catchment Data Explorer. Available at: https://environment.data.gov.uk/catchment-planning/ [Accessed 31/10/2025]

Classification Item	Long Pit Water Body (Lake)
Biological quality elements	N/A
Physico-chemical quality elements	N/A
Hydromorphological Supporting Elements	N/A
Hydrological Regime	N/A
Supporting elements (Surface Water)	Moderate (2019)
Mitigation Measures Assessment	Good (2019)
Specific pollutants	N/A
Chemical	Fail (2019)
Priority hazardous substances	Fail (2019)
Priority substances	Good (2019)
Other pollutants	Does not require assessment

Table 3-5: WFD Classifications of Burrows Pit Water Body

Classification Item	Burrows Pit Water Body (Lake)
Water Body ID	GB30745060
Hydromorphological designation	Artificial
Ecological	Good (2019)
Biological quality elements	N/A
Physico-chemical quality elements	N/A
Hydromorphological Supporting Elements	N/A
Hydrological Regime	N/A
Supporting elements (Surface Water)	Good (2019)
Mitigation Measures Assessment	Good (2019)
Specific pollutants	N/A
Chemical	Fail (2019)
Priority hazardous substances	Fail (2019)
Priority substances	Good (2019)
Other pollutants	Does not require assessment

Table 3-6: WFD Classifications of Sussex East Water Body

Classification Item	Sussex East Water Body (Coastal)
Water Body ID	GB640704540002
Hydromorphological designation	Heavily modified
Ecological	Moderate (2019)
Biological quality elements	Good (2019)
Physico-chemical quality elements	High (2019)
Hydromorphological Supporting Elements	N/A
Hydrological Regime	N/A

Classification Item	Sussex East Water Body (Coastal)
Supporting elements (Surface Water)	Moderate (2019)
Mitigation Measures Assessment	Moderate or less (2019)
Specific pollutants	High (2019)
Chemical	Fail (2019)
Priority hazardous substances	Fail (2019)
Priority substances	Good (2019)
Other pollutants	Does not require assessment

Table 3-7: WFD Classifications of Kent South Water Body

Classification Item	Kent South Water Body (Coastal)
Water Body ID	GB640704540001
Hydromorphological designation	Heavily modified
Ecological	Moderate
Biological quality elements	Good
Physico-chemical quality elements	Good
Hydromorphological Supporting Elements	N/A
Hydrological Regime	N/A
Supporting elements (Surface Water)	Moderate
Mitigation Measures Assessment	Moderate or less (2019)
Specific pollutants	High
Chemical	Fail (2019)
Priority hazardous substances	Fail (2019)
Priority substances	Good (2019)
Other pollutants	Does not require assessment

3.4.6 The Works Area is underlain by the Kent Romney Marsh groundwater body. A summary of the WFD status of this groundwater body is provided in **Table 3-8**.

Table 3-8: WFD Classifications of Kent Romney Marsh Groundwater Body

Classification Item	Kent Romney Marsh (Groundwater) (all classifications from 2014)
Water Body ID	GB40702G503900
Overall Water Body	Poor
Quantitative	Poor
Quantitative Status element	Poor
Quantitative Dependent Surface Water Body Status	Good
Quantitative Groundwater Dependent Terrestrial Ecosystem (GWDTEs) test	Good
Quantitative Saline Intrusion	Poor

Classification Item	Kent Romney Marsh (Groundwater) (all classifications from 2014)
Quantitative Water Balance	Good
Chemical (GW)	Poor
Chemical Status element	Poor
Chemical Dependent Surface Water Body Status	Poor
Chemical Drinking Water Protected Area	Good
Chemical GWDTEs test	Good
Chemical Saline Intrusion	Poor
General Chemical Test	Good
Supporting elements (Groundwater)	N/A
Prevent and Limit Objective	Active
Trend Assessment	No trend

Baseline Characteristics against WFD Quality Elements

Biological Quality Elements

Marine Ecology

3.4.7 No designated sites fall within the initial 8km Study Area for marine ecology. However, there are five designated sites which protect mobile species which have been considered in this assessment, based on the Study Areas provided in Paragraph 1.2.3 and **Table 1-1**. These designated sites and their relevant reason(s) for designation are listed in **Table 3-9**, along with distances to the Marine Works.

Table 3-9: Designated Sites Within the Study Area

Site Name	Relevant Reason(s) for Designation	Approximate Distance from Works Area (km)
Southern North Sea Special Area of Conservation (SAC)	Harbour porpoise (*Phocoena phocoena*)	52
Medway Estuary Marine Conservation Zone (MCZ) – Zone 2	Smelt (*Osmerus eperlanus*)	55
Dolphin Head Highly Protected Marine Area (HPMA)	Grey seal (*Halichoerus grypus*) and Harbour porpoise	121
The Wash and North Norfolk Coast SAC	Harbour seal (*Phoca vitulina*)	213
Humber Estuary SAC	Grey seal	283

3.4.8 There are no areas within the Study Area that are designated as protected under the WFD, such as shellfish waters or Sensitive Areas – Eutrophic Coastal. The nearest sites are the Shellfish Waters around 50km to the north, which fall outside of the marine ecology Study Area of 8km and are therefore out of the Proposed Works' zone of influence.

Intertidal Habitats

3.4.9 The Marine Works are situated entirely within the subtidal area off Dungeness Beach. No access would be required to the intertidal area during the Marine Works. However, due to the location of the Marine Works and the potential for some indirect impact pathways to affect the intertidal area (i.e. airborne pollutant deposition, airborne noise affecting seals hauled-out on Dungeness Beach), intertidal habitat has been included within the baseline for completeness.

3.4.10 The intertidal habitat at Dungeness primarily consists of a shingle beach with a mixture of soft sediment and gravel and cobbles. The specific habitat types include:

- A2.1 – littoral coarse sediment; and
- A2.2 – littoral sand and muddy sand.

3.4.11 These intertidal habitats do not fall within the footprint of the Marine Works. Other intertidal habitats present include infralittoral fine sand (A5.23) and infralittoral muddy sand (A5.24).

3.4.12 There are no Annex I habitats present in the intertidal area adjacent to the Marine Works.

Subtidal Habitats

3.4.13 The Marine Works are largely situated within subtidal soft sediment (A5.2 – sublittoral sand) and high energy circalittoral seabed (refer to **Figures 13-1: EU Sea Map (2023) in a 8 km radius** and **Figure 13-2: EU Sea Map 2023 - Habitats inside the Proposed Works Boundary** of the EIA Scoping Report). Other subtidal habitats which are present in the wider Study Area include:

- Circalittoral fine sand (A5.25) or circalittoral muddy sand (A5.26);
- High energy circalittoral seabed and circalittoral coarse sediment (A5.14);
- Circalittoral sandy mud (A5.35);
- Deep circalittoral mud (A5.37); and
- Deep circalittoral coarse sediment (A5.15).

3.4.14 Subtidal benthic surveys will be undertaken in the vicinity of the Marine Works to confirm the presence and absence of different sediment habitat types. The survey results will be considered in the marine ecology assessment to be included in the ES.

Freshwater Ecology

3.4.15 There has been no Environment Agency freshwater fish surveying within the Study Area or the Romney Marsh South Operational Catchment in the past 10 years[14]. Within the catchment there is one river macrophytes sample

[14] Environment Agency (2025) Ecology & Fish Data Explorer. Available at: https://environment.data.gov.uk/ecology/explorer/ [Accessed 31/10/2025].

point, however, this is located on the Guldeford Sewer near Rye which has no clear hydrological links to the Study Area.

3.4.16 There are no river invertebrate sample points within the Study Area, although there are six in the wider operational catchment area. All six are located on sewers and drains in and around the town of Lydd, around 4km north-west of the Study Area.

Physico-chemical Quality Elements

3.4.17 Baseline water quality within the Study Area is available via the Environment Agency's Water Quality Archive website[15]. Relevant monitoring sites are detailed in **Table 3-10** together with a brief summary of the data available.

Table 3-10: Summary of Water Quality Monitoring Sites in the Vicinity of the Proposed Works

Water Body	Sampling Point	ID	Proximity to Study Area	Summary
Long Pit	Long Pit	SO-E0004661	North side of Long Pit, at NGR TR 07969 18877	76 samples taken between 2005 and 2025, 37 determinands in total, including physico-chemical, bacteria, organics and metals.
The English Channel (i.e. Sussex East WFD (Coastal) Water Body)	Dungeness B C/W Outlet	SO-E0000106	South of Dungeness B, at NGR TR 08200 16500	273 samples taken between 2000 and 2025, 19 determinands in total. In the past 5 years only temperature, grease and chlorine have been surveyed.
Inflow to Dungeness B	Dungeness B C/Water Inlet	SO-E0017012	South of Dungeness B, at NGR TR 08180 16740	266 samples taken between 2000 and 2025, only temperature taken.
The English Channel (i.e. Sussex East WFD (Coastal) Water Body)	Dungeness A STW	SO-E0017057	South of Dungeness B, at NGR TR 08302 16440	225 samples taken between 2000 and 2025, 16 determinands in total. In the past 5 years only biochemical oxygen demand (BOD) and suspended solids have been surveyed.
Burrows Pit	Burrows Pit	SO-E0004737	Approx. 100m north-west of the Study Area, at NGR TR 06900 18300	54 samples taken between 2007 and 2025, 19 determinands in total, including physico-chemical and organic compounds.

Hydromorphological Quality Elements

3.4.18 In November, a walkover of the Dungeness B site and the surrounding area was undertaken to inform the water environment baseline, focussing on both

[15] Environment Agency (2025) Water Quality Archive. Available at: https://environment.data.gov.uk/water-quality/view/landing [Accessed 31/10/2025].

the condition and quality of water features. A brief summary of the hydromorphological condition of each of the waterbodies is provided below.

3.4.19 Long Pit is situated directly north of the Area A of the Works Area, and comprises part of Area C of the Works Area, and forms one of the elongated waterbodies characteristics of former gravel extraction areas at Dungeness. The lake is narrow and linear, with an earth embankment dividing it approximately halfway along its length. Gravel substrate was visible in accessible shallow margins, suggesting relatively coarse bed material. Vegetation lines both sides of the lake, comprising a mix of marginal and terrestrial plants and there was no significant in-channel aquatic vegetation was observed within the visible sections.

3.4.20 Burrows Pit lies to the northwest of the Area A of the Works Area and is one of the larger lake features in the immediate surroundings. It forms part of the network of waterbodies within the Dungeness NNR. The lake supports continuous marginal vegetation around its perimeter, potentially providing habitat for a range of wetland species. The presence of managed vegetation suggests ongoing maintenance, likely by the reserve management body.

3.4.21 The Sussex East WFD Water Body lies immediately south of Area A and comprises part of Area D of the Works Area. A substantial engineered embankment separates Area Afrom the coastal frontage, the embankment appears benched and is surfaced with shingle, consistent with coastal protection works in this area. Additionally, large rock armour (possible riprap) is positioned on the landward-facing slope, likely serving as erosion protection.

3.4.22 Dengemarsh Sewer is positioned northwest of Area A of the Works Area, with the watercourse running parallel to Dengemarsh Road before discharging to the English Channel. Upstream, the watercourse is heavily modified, with steep engineered banks and clear separation from the surrounding floodplain. There was reed growth present along channel margins but appeared limited to narrow strips and the bed substrate consisted mainly of gravels with minimal aquatic vegetation. The downstream section of the sewer had similar channel characteristics to the upstream section. Additionally, localised over-widening and deepening appear at various points, influencing flow distribution. Bridges and culverts were also noted to disrupt flow patterns, creating localised turbulence and impoundment zones. Near the coastline, flows are controlled by an in-channel flume structure, likely used to regulate levels and discharge rates. The watercourse becomes fully culverted prior to reaching the outfall into the English Channel. The outfall structure itself is large and is constructed of concrete and sheet piling. This confirms significant modification at the tidal interface.

3.5 Summary of WFD Screening Assessment

3.5.1 Two coastal water bodies, one surface water body and one groundwater body are located within the 1km zone of influence of the Proposed Works and have been ‘screened in’ for WFD assessment (refer to **Table 3-1**). Burrows Pit Water Body has been screened out, however, due to its proximity just outside the Study Area - this will be reviewed during future

walkover surveys which will determine if there are any potential impact pathways, or whether this water body should also be screened in.

3.5.2 The Proposed Works' activities have been screened for potential WFD risks, considering the likely design and standard mitigation. Based on the current understanding of the Proposed Works, all activities have been screened in. However, by its very nature the Proposed Works may result in the cessation of existing impacts associated with now redundant structures or abstraction and discharge of cooling waters, treated foul and process waters. Existing impacts to identified receptors may take time to recover following the Proposed Works. Although a highly regulated and safe industry, the decommissioning of a former nuclear power station also removes a significant environmental hazard, whilst creating opportunities for environmental enhancement.

4. WFD Scoping

4.1.1 The WFD scoping stage defines the level of detail required for further WFD assessment. This includes identifying risks to the WFD receptors from the Proposed Works components that have been screened in as detailed in **Table 3-2**. This includes Long Pit (GB30745064), the two nearby coastal water bodies, and Kent Romney Marsh Groundwater Body (GB40702G503900). The fluvial (Dengemarsh Sewer) has been screened out on the basis of the screening assessment presented in **Section 3.2**.

4.2 Freshwater Lake Water Body Scoping

Long Pit (GB30745064)

4.2.1 The scoping assessment (Stage 2) is presented in **Table 4-1** for freshwater lake water bodies, i.e. Long Pit.

Table 4-1: WFD Scoping of the Proposed Works' Components Activities Against WFD Quality Elements for Freshwater Lake Waterbodies

WFD Elements	Scoping Outcome	Justification
Biological Quality Elements		
Fish	In	Possible increase in fine sediment and organic material to water bodies and potential chemical spillages during demolition could affect water quality and therefore impact fish/invertebrates. However, cessation of the need for the abstraction of cooling water (already ceased), and the removal of redundant structures with habitat restoration, may remove existing adverse impacts and thus result in improvements in water and habitat quality.
Invertebrates	In	
Macrophytes and Phytobenthos Combined	In	Fine sediment from Works Area runoff can smoother macrophytes and temporarily increase turbidity that can affect potential for photosynthesis. Chemical herbicides may also be used to control weed growth on earth stockpiles etc. However, cessation of the need for the abstraction of cooling water, and the removal of redundant structures with habitat restoration, may remove existing adverse impacts and thus result in improvements in water and habitat quality.

WFD Elements	Scoping Outcome	Justification
Physico-chemical Quality Elements		
Thermal conditions	Out	Back-up cooling water is no longer abstracted from the Long Pit (abstraction licence surrendered) and was never discharged to this location. As such, no change in thermal conditions is anticipated, with removal of redundant structures (with habitat restoration) not anticipated to affect thermal conditions.
Oxygenation conditions	In	Possible increase in fine sediment and organic material delivered to water bodies from demolition activities, chemical spills or changes in flow due to temporary impoundments or blockages could result in a localised impact on dissolved oxygen conditions. However, cessation of the need for the abstraction of cooling water, and the removal of redundant structures with habitat restoration, may remove existing adverse impacts and thus result in improvements in water and habitat quality.
Salinity	Out	Although the use of de-icing salts on impermeable surfaces during demolition and cold weather cannot be ruled out, it is unlikely to be applied frequently and would only have a temporary and localised impact on salinity in receiving watercourses.
Acidification status	In	Should a significant chemical spillage occur during demolition there is the potential for the pH of the receiving watercourse to be temporarily altered. There is a potential risk that recycled concrete used for void infill could leach alkaline water into adjacent soils or receiving waterbodies
Nutrient conditions	In	Runoff from demolition activities may increase sediment loads and organic material to watercourses. There is also the potential for spillages of foul wastewater from welfare facilities.
Additional pollution sources	In	Should a significant chemical spillage/leakage occur during demolition, such as hydraulic fluid or diesel fuel from large plant equipment, there is the potential for the water quality of the receiving watercourse to be temporarily altered.

4.3 Coastal Water Body Scoping

4.3.1 A scoping assessment (Stage 2) is required to determine which coastal and estuarine receptors may be impacted by the Proposed Works and therefore need to be assessed in the WFD impact assessment (Stage 3). These receptors are defined in accordance with the Environment Agency Clearing the Waters Guidance[16] and are based on the water body's quality elements; the receptors include:

- Hydromorphology;
- Water quality;
- Biology – habitats;
- Biology – fish; and
- Protected Areas.

[16] Environment Agency (2023) Water Framework Directive assessment: estuarine and coastal waters. Available at: https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters [Accessed 31/10/2025].

4.3.2 The scoping assessment also considers invasive non-native species (INNS).

4.3.3 As the scoping assessment outlined in the Clearing the Waters Guidance is designed for coastal and estuarine water bodies, it is applied here to the coastal water bodies only.

Sussex East Water Body (GB640704540002)

4.3.4 The footprint of the Proposed Works falls partially within the catchment of the Sussex East Coastal WFD water body and includes two discharge locations within the water body.

4.3.5 The Sussex East Coastal water body is a Heavily Modified Water Body that is currently at Moderate Ecological Potential. There are currently no mitigation measures identified in the South East RBMP for this water body. It has an objective of Good Ecological Potential by 2027.

Hydromorphology

4.3.6 Hydromorphology refers to the physical characteristics of water bodies. Hydromorphological quality elements include the size, shape and structure of the water body, and the flow and quantity of water and sediment. Impacts on hydromorphology include changes to morphological conditions (for example variation in the structure of the seabed and intertidal zone) and tidal patterns (for example dominant currents, freshwater flow and wave exposure). Hydromorphology is only a WFD quality element for high status water bodies, but significantly influences other elements, particularly biological ones, and thus is an important part of the assessment.

4.3.7 The Proposed Works are due to include the installation of two new discharge lines; however, these would be installed within the existing outfall structures (and would utilise the existing environmental permits) meaning there would be minimal impact on the seabed. Additionally, an intake in the same area would be capped (within the terrestrial area of the Works Area), although all infrastructure would remain in place and lie dormant.

4.3.8 The scoping assessment of the potential effects to hydromorphology is provided in **Table 4-2**. The risk criteria in the table are taken from the Environment Agency guidance on WFD assessment for estuarine and coastal waters[16].

Table 4-2: Scoping Assessment of Risks to Hydromorphology for the Sussex East Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Hydromorphology Risk Issue(s)
Could impact on the hydromorphology (e.g. morphology or tidal patterns) of a water body at high status.	n/a - water body not at high status.	n/a - water body not at high status.	n/a - water body not at high status.
Could significantly impact the hydromorphology (i.e. bed morphology and substrate) of any water body.		✓	Whilst it has been identified that changes to seabed morphology could occur as a result of discharge flow from the

Risk	Requires Impact Assessment	Impact Assessment Not Required	Hydromorphology Risk Issue(s)
Activity is in a water body that is heavily modified for the same use as your activity.		✓	outfall pipes, and through direct effects associated with the presence of a jack-up barge this would be at a local level that is unlikely to alter the overall status of the water body.

Water Quality – Physico-Chemical Quality Elements

4.3.9 Impacts to ecological water quality relates to effects on any of the following: water clarity, temperature, salinity, oxygen levels, nutrients, microbial patterns for longer than a spring neap tidal cycle (approximately 14 days). In addition, if the water body has a history of harmful algae or a phytoplankton status of Moderate, Poor or Bad, this needs to be considered.

4.3.10 If not mitigated during Proposed Works, there could be impacts on the Sussex East coastal water body chemical status from diffuse urban pollutants in surface water runoff, or as a result of accidental chemical spillages, which would potentially be discharged via the potential outfall to Sussex East.

4.3.11 Phytoplankton status has not been classified for the Sussex East coastal water body. There is no monitoring of harmful algae, which it is assumed to indicate that this is not a particular risk for this water body. As such, further consideration of phytoplankton and harmful algae has been scoped out from further consideration in the WFD impact assessment, as summarised in **Table 4-3**.

Table 4-3: Scoping Assessment of Risks to Physico-chemical Quality Elements in the Sussex East Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Water Quality Risk Issue(s)
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns. continuously for longer than a spring neap tidal cycle (about 14 days).	✓		Impacts on the Sussex East coastal water body from mobilisation of sediments, diffuse urban pollutants in surface water runoff or process water effluent, or as a result of accidental spillages, which may be discharged via the outfalls to Sussex East.
Is in a water body with a phytoplankton status of moderate, poor or bad.		✓	There is no monitoring of harmful algae and it is therefore assumed that this is not a particular risk for this water body. As such, further consideration of phytoplankton and harmful algae has been scoped out from further consideration in

Risk	Requires Impact Assessment	Impact Assessment Not Required	Water Quality Risk Issue(s)
			the WFD impact assessment.
Is in a water body with a history of harmful algae.		✓	N/A as per above comment.

Water Quality – Chemical Status

4.3.12 During the Proposed Works if not mitigated there could be impacts on the Sussex East coastal water body chemical status from diffuse urban pollutants in surface water runoff, or as a result of accidental chemical spillages, or discharges of treated process wastewater which are discharged via the outfalls.

4.3.13 The scoping assessment for chemical status is summarised in **Table 4-4**.

Table 4-4: Scoping Assessment of Risks to Chemical Status in the Sussex East Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Water Quality Risk Issue(s)
The chemicals are on the Environmental Quality Standards Directive (EQSD) list.	✓		Potential for a range of chemicals to be discharged to the Sussex East coastal water body from diffuse urban pollutants in surface water runoff or process water effluent, or as a result of accidental spillages.
It disturbs sediment with contaminants above CEFAS Action Level 1.		✓	Very minimal seabed work proposed, with works within the existing outfall structure, meaning minimal sediment disturbance would occur. This has the possibility of being scoped in at a later date once further details regarding installation methods are known.

Biology – Habitats

4.3.14 A number of habitats have been highlighted in the Environment Agency Clearing the Waters guidance[16] as being of higher and lower sensitivity based on their resistance to, and recovery rate, from human pressures. **Table 4-5** outlines the higher and lower sensitivity habitats associated with the Sussex East coastal water body (based on the Environment Agency WFD water body summary table), which have the potential to be impacted during operation by discharges from the potential outfall causing chemical changes in water quality and deposition of air pollutants.

Table 4-5: Higher and Lower Sensitivity Habitats found in the Sussex East Coastal Water Body

Higher Sensitivity Habitats	Area (ha)	Lower Sensitivity Habitats	Area (ha)
Mussel beds	184.26	Cobbles, gravel and shingle	2,287.30
Subtidal kelp beds	494.62	Intertidal soft sediment	8,95.66
		Subtidal rocky reef	1,345.31
		Subtidal soft sediments	7,705.34
		Rocky shore	178.57

4.3.15 Habitats should be included as part of the WFD impact assessment if the footprint of the activity is any of the following[16], noting that this also includes the footprint of thermal or sediment plumes:

- 0.5km^2 or larger in area within the estuarine or coastal water body;
- 1% or more of the water body's area; and
- Within 500m of any higher sensitivity habitat or covering 1% or more of any lower sensitivity habitat area.

4.3.16 Magic Map[17] has been used to confirm the proximity of the noted sensitive habitats to the Proposed Works. The nearest Higher Sensitivity Habitat (Saltmarsh at Rye) is over 13km away.

4.3.17 In accordance with this Environment Agency guidance, the habitats outlined in **Table 4-6** have been scoped into the WFD impact assessment on account of the potential plumes of pollutants to be produced by the Proposed Works if not mitigated.

Table 4-6: Scoping Assessment of Risks to Biological Habitat in the Sussex East Coastal Water Body

Footprint is:	Requires Impact Assessment	Impact Assessment Not Required	Biological Habitat Risk Issue(s)
0.5km^2 or larger.	✓		Potential for pollutant plumes to exceed 0.5km^2. This is expected to be discharged in line with existing permits but is scoped in on a precautionary basis.
1% or more of the water body's area.		✓	The Works Area would not exceed 1% or more of the water body's area.
Within 500m of any higher sensitivity habitat.		✓	Over 13km to nearest higher sensitivity habitat.
1% or more of any lower sensitivity habitat.		✓	The Works Area would not exceed 1% or more of any lower sensitivity habitat.

[17] Defra (n.d.) Magic Map Application. Available at: https://magic.defra.gov.uk/magicmap.aspx. [Accessed 31/10/2025].

Fish

4.3.18 There could be impacts from discharging treated process waters to the Sussex East coastal water body which could affect fish movement or contaminants in surface water runoff or process water discharge that may affect fish population health in the short term (risk of chemical spillages or failures in long term treatment systems) or longer term (spillages and routine discharges from the Proposed Works). The scoping assessment of risk to fish is provided in **Table 4-7**.

Table 4-7: Scoping Assessment of Risks to Biological Fish in the Sussex East Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Biological fish risk issue(s)
Could impact on normal fish behaviour like movement, migration, or spawning (e.g. creating a physical barrier, noise, chemical change or change in depth or flow).	✓		Outfalls in Sussex East at Dungeness could cause the release of pollutants in surface water runoff or discharge of process water effluent to the water body although this will be in line with existing permits. Furthemore, in the long term the cessation of abstraction/discharges of cooling water and treated foul or process water may result in direct and indirect beneficial impacts on fish.
Could cause entrainment or impingement of fish.		✓	No abstractions are proposed within the Sussex East coastal water body, therefore, entrainment or impingement of fish is unlikely to occur.

Water Framework Directive Protected Areas

4.3.19 The location of the Proposed Works in relation to the following WFD Protected Areas has been considered (see **Chapter 19: Water Environment and Flood Risk** of the EIA Scoping Report for baseline details of relevant Protected Areas):

- Special Areas of Conservation (SACs);
- Special Protection Areas (SPAs);
- Shellfish waters;
- Bathing waters; and
- Nutrient sensitive areas.

4.3.20 The outcome of the scoping assessment for WFD Protected Areas is shown in **Table 4-8**.

Table 4-8: Scoping Assessment of WFD Protected Areas in the Sussex East Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Biological Fish Risk Issue(s)
Activity is within 2km of any WFD Protected Area.	✓		Activity is within 2km of WFD Protected Areas – i.e. it overlaps the Dungeness, Romney Marsh and Rye Bay SPA.

Invasive Non-Native Species

4.3.21 There are no anticipated effects regarding INNS due to the Proposed Works. The scoping assessment of risks from INNS is summarised in **Table 4-9**.

Table 4-9: Scoping Assessment of Risks from INNS in the Sussex East Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Biological Fish Risk Issue(s)
Activity may introduce or spread INNS to a water body.		✓	The Marine Works do not involve the placement of any new materials which will be exposed to the marine environment for a prolonged period of time, which any INNS could colonise. Furthermore, as part of embedded mitigation measures, all vessels would be required to comply with International Convention for the Control and Management of Ships' Ballast Water and Sediments to prevent the spread of marine INNS, and IMO Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species. Therefore, the risk of introduction and spread of INNS is considered highly unlikely and this impact pathway is scoped out.

Summary

4.3.22 A summary of the receptors and relevant WFD quality elements that have been scoped into the WFD impact assessment for the Sussex East Coastal Water Body is shown in **Table 4-10**.

Table 4-10: Scoping Outcome for the Sussex East Coastal Water Body

Receptor	Relevant WFD Quality Element(s)	Potential Risk to Receptor
Hydromorphology	Hydromorphological elements	Although existing outlet infrastructure within the Sussex East Coastal Water Body would be used during the Initial Decommissioning Works, the removal of redundant structure

Receptor	Relevant WFD Quality Element(s)	Potential Risk to Receptor
		following this period is likely to result in a beneficial impact on coastal morphology (sub-tidal), but at a local level that is unlikely to alter the overall status of the water body.
Water Quality	Physico-chemical and chemical water quality elements	Impacts arising from diffuse urban pollutants in surface water runoff or process water effluent, or as a result of accidental spillages, which may be discharged via the outfalls to Sussex East Coastal Water Body. However, this is anticipated to be in line with existing permitted limits but is scoped in on a precautionary basis.
Biology: Habitats	Habitats and benthic invertebrates	Potential pollutant plumes during operation could affect marine ecology within Sussex East, although any operational discharge will be in line with existing permitted limits. In the longer term there could be beneficial impacts from the removal of redundant structures and cessation of water abstraction/discharges.
Biology: Fish	Fish	Fish behaviour could be affected by chemical change in the water body although this will be in line with existing permitted limits. In the longer term there could be beneficial impacts.
Protected Areas	N/A	Activity is within 2km of WFD protected areas (i.e. it overlaps Dungeness, Romney Marsh and Rye Bay SPA).

Kent South Water Body (GB640704540001)

4.3.23 The Kent South WFD water body is scoped in due to a 12km tidal excursion from the Proposed Works, noting that there are no plans for any infrastructure additions or changes to the water body. The Kent South water body is a Heavily Modified Water Body that is currently at Moderate Ecological Potential. There are currently no mitigation measures identified in the South East RBMP for this water body. It has an objective of Good Ecological Potential by 2027.

Hydromorphology

4.3.24 The Proposed Works has no plans for any infrastructure additions or changes to the waterbody, indicating that there would be minimal impact on the seabed.

4.3.25 The scoping assessment of the potential effects to hydromorphology is provided in **Table 4-11**. The risk criteria in the table are taken from the Environment Agency guidance on WFD assessment for estuarine and coastal waters[16].

Table 4-11: Scoping Assessment of Risks to Hydromorphology for the Kent South Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Hydromorphology Risk Issue(s)
Could impact on hydromorphology (e.g. morphology or tidal patterns) of a water body at high status.	n/a - water body not at high status.	n/a - water body not at high status.	n/a - water body not at high status.
Could significantly impact the hydromorphology (i.e. bed morphology and substrate) of any water body.		✓	The Proposed Works has no plans for any infrastructure additions or changes to the waterbody meaning there would be minimal impact on the seabed. Therefore, the Proposed Works are unlikely to alter the overall status of the water body.
Activity is in a water body that is heavily modified for the same use as your activity.		✓	

Water Quality – Physico-Chemical Quality Elements

4.3.26 If not mitigated during construction and operation, diffuse urban pollutants in surface water runoff (or as a result of accidental chemical spillages) could potentially be discharged via the potential outfall to Sussex East water body. The 12km tidal excursion between the Sussex East and Kent South water bodies would mean that pollutants would dilute and disperse, resulting in minimal impact on Kent South. There are also no plans for any Proposed Works infrastructure additions that would directly impact upon the Kent South water body.

4.3.27 Phytoplankton is classified as Good status for the Kent South coastal water body. There is no monitoring of harmful algae which it is assumed to indicate that this is not a particular risk for this water body. As such, further consideration of phytoplankton and harmful algae has been scoped out from further consideration in the WFD impact assessment – refer to **Table 4-12**.

Table 4-12: Scoping Assessment of Risks to Physico-chemical Quality Elements in the Kent South Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Water Quality Risk Issue(s)
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days).		✓	The 12km tidal excursion would dilute and disperse the potential discharged pollutants in the Sussex East water body to the Kent South water body, resulting in minimal impact. There are also no plans for any Proposed Works infrastructure additions that

Risk	Requires Impact Assessment	Impact Assessment Not Required	Water Quality Risk Issue(s)
			would directly impact Kent South.
Is in a water body with a phytoplankton status of moderate, poor or bad.		✓	N/A - phytoplankton status is Good.
Is in a water body with a history of harmful algae.		✓	There is no monitoring of harmful algae, which it is assumed to indicate that this is not a particular risk for this water body.

Water Quality – Chemical Status

4.3.28 During the Proposed Works if not mitigated there could be impacts on Sussex East coastal water body from diffuse urban pollutants in surface water runoff, or as a result of accidental chemical spillages, or discharges of treated process wastewater which are discharged via the outfalls. The 12km tidal excursion between the Sussex East and Kent South water bodies would mean that pollutants would dilute and disperse resulting in minimal impact on the chemical status of Kent South. There are also no plans for any Proposed Works infrastructure additions that would directly impact upon the Kent South water body. The scoping assessment for chemical status is summarised in **Table 4-13**.

Table 4-13: Scoping Assessment of Risks to Chemical Status in the Kent South Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Water Quality Risk Issue(s)
The chemicals are on the Environmental Quality Standards Directive (EQSD) list		✓	The 12km tidal excursion would dilute and disperse any discharged chemicals in the Sussex East water body to the Kent South water body, resulting in minimal impact. There are also no plans for any infrastructure additions that would directly impact Kent South.
It disturbs sediment with contaminants above CEFAS Action Level 1		✓	The Proposed Works has no plans for any infrastructure additions or changes to the waterbody meaning there would be minimal impact on the seabed. The 12km tidal excursion would dilute and disperse any discharged chemicals in the Sussex East water body to the Kent South water body, resulting in minimal impact.

Biology – Habitats

4.3.29 A number of habitats have been highlighted in the Environment Agency Clearing the Waters guidance[16] as being of higher and lower sensitivity based on their resistance to, and recovery rate, from human pressures. **Table 4-14** outlines the higher and lower sensitivity habitats associated with the Kent South coastal water body (based on the Environment Agency WFD water body summary table), which have the potential to be impacted from the 12km tidal excursion between Sussex East and Kent South.

Table 4-14: Higher and Lower Sensitivity Habitats Found in the Kent South Coastal Water Body

Higher Sensitivity Habitats	Area (ha)	Lower Sensitivity Habitats	Area (ha)
Chalk reef	1,067.69	Cobbles, gravel and shingle	3,078.94
		Intertidal soft sediment	1,231.84
		Subtidal rocky reef	3,778.02
		Subtidal soft sediments	12,509.14
		Rocky shore	179.12

4.3.30 Habitats should be included as part of the WFD impact assessment if the footprint of the activity is any of the following[16], noting that this also includes the footprint of thermal or sediment plumes:

- 0.5km^2 or larger in area within the estuarine or coastal water body;
- 1% or more of the water body's area; and
- Within 500m of any higher sensitivity habitat or covering 1% or more of any lower sensitivity habitat area.

4.3.31 Magic Map[17]has been used to confirm the proximity of the noted sensitive habitats to the Proposed Works. The nearest Higher Sensitivity Habitat (Saltmarsh are Rye) is over 13km away.

4.3.32 In accordance with this Environment Agency guidance, the habitats outlined above have been scoped into the WFD impact assessment on account of the potential plumes of pollutants to be produced by the Proposed Works (**Table 4-15**).

Table 4-15 Scoping Assessment of Risks to Biological Habitat in the Kent South Coastal Water Body

Footprint is:	Requires Impact Assessment	Impact Assessment Not Required	Biological Habitat Risk Issue(s)
0.5km^2 or larger.	✓		Potential for pollutant plumes to exceed 0.5km^2. Discharge is expected to be discharged in line with existing permits, but is scoped in on a precautionary basis.
1% or more of the water body's area.		✓	The Works Area is not located within the coastal water body.

Footprint is:	Requires Impact Assessment	Impact Assessment Not Required	Biological Habitat Risk Issue(s)
Within 500m of any higher sensitivity habitat.		✓	Over 13km to nearest higher sensitivity habitat
1% or more of any lower sensitivity habitat.		✓	The Works Area is not located within the coastal water body.

Fish

4.3.33 The 12km tidal excursion between Sussex East and Kent South coastal water bodies would mean that pollutants from chemical spillages or process waters would dilute and disperse resulting in minimal impact on fish movement or fish population health in the Kent South coastal water body. There are also no plans for any infrastructure additions that would directly impact Kent South. The scoping assessment of risk to fish is provided in **Table 4-16**.

Table 4-16 Scoping Assessment of Risks to Biological Fish in the Kent South Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Biological Fish Risk Issue(s)
Could impact on normal fish behaviour like movement, migration, or spawning (e.g. creating a physical barrier, noise, chemical change or change in depth or flow).		✓	The 12km tidal excursion between the Sussex East and Kent South coastal water bodies would mean that pollutants from the risk of chemical spillages or the release of plumes from process waters would dilute and disperse resulting in minimal impact on fish movement or fish population health in the Kent South coastal water body. In the long term the cessation of abstraction/ discharges of cooling water and treated foul or process water may result in direct and indirect beneficial impacts on fish.
Could cause entrainment or impingement of fish.		✓	No abstractions are proposed within the Kent South coastal water body, therefore, entrainment or impingement of fish is unlikely to occur.

Water Framework Directive Protected Areas

4.3.34 The location of the Works Area in relation to the following WFD Protected Areas has been considered (see **Chapter 19: Water Environment and Flood Risk** of the EIA Scoping Report for baseline details of relevant Protected Areas):

- SACs;
- SPAs;
- Shellfish waters;
- Bathing waters; and
- Nutrient sensitive areas.

4.3.35 The outcome of the scoping assessment for WFD Protected Areas is shown in **Table 4-17**.

Table 4-17 Scoping Assessment of WFD Protected Areas in the Kent South Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Biological Fish Risk Issue(s)
Activity is within 2km of any WFD Protected Area.	✓		Activity is within 2km of WFD Protected Areas – i.e. it overlaps Dungeness, Romney Marsh and Rye Bay SPA.

Invasive Non-Native Species

4.3.36 There are no anticipated effects regarding INNS due to the Proposed Works. The scoping assessment of risks from INNS is summarised in **Table 4-18**.

Table 4-18: Scoping Assessment of Risks from INNS in the Sussex East Coastal Water Body

Risk	Requires Impact Assessment	Impact Assessment Not Required	Biological Fish Risk Issue(s)
Activity may introduce or spread INNS to a water body.		✓	The Marine Works do not involve the placement of any new materials which will be exposed to the marine environment for a prolonged period of time, which any INNS could colonise. Furthermore, as part of embedded mitigation measures, all vessels would be required to comply with International Convention for the Control and Management of Ships' Ballast Water and Sediments to prevent the spread of marine INNS, and IMO Guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species. Therefore, the risk of introduction and spread of INNS is considered highly unlikely and this impact pathway is scoped out.

Summary

4.3.37 A summary of the receptors and relevant WFD quality elements that have been scoped into the WFD impact assessment for the Kent South Coastal Water Body is shown in **Table 4-19**.

Table 4-19: Scoping Outcome for the Kent South Coastal Water Body

Receptor	Relevant WFD Quality Element(s)	Potential Risk to Receptor
Hydromorphology	Hydromorphological elements	The Proposed Works has no plans for any infrastructure additions or changes to the waterbody meaning there would be minimal impact on the seabed. Therefore, the Proposed Works are unlikely to alter the overall status of the water body.
Water Quality	Physico-chemical and chemical water quality elements	Impacts on the Kent South Coastal Water Body arising from diffuse urban pollutants in surface water runoff or process water effluent, or as a result of accidental spillages, which may be discharged via the outfalls to Sussex East Coastal Water Body. However, discharges are anticipated to be in line with existing permitted limits but are scoped in on a precautionary basis.
Biology: Habitats	Habitats and benthic invertebrates	Potential pollutant plumes during operation could affect marine ecology within the Kent South Coastal Water Body. In the longer term there could be beneficial impacts from the removal of redundant structures and cessation of water abstraction/ discharges.
Protected Areas	N/A	Activity is within 2km of WFD Protected Areas (i.e. it overlaps Dungeness, Romney Marsh and Rye Bay SPA).

4.4 Groundwater Body Scoping

Kent Romney Marsh (GB40702G503900)

4.4.1 The scoping stage assessment for groundwater bodies is presented in **Table 4-20**.

Table 4-20: WFD Scoping of the Proposed Works' Activities Against WFD Quality Elements for Groundwater Bodies

WFD Elements	Scoping Outcome	Justification
Groundwater Quality Elements		
Quantitative elements	Out	No activities which would excavate below 1m, and therefore the Proposed Works are unlikely to impact groundwater conditions.
Chemical elements	In	No activities which excavate below 1m, and therefore the Proposed Works are unlikely to impact groundwater conditions. However, there may be temporary risks during the Initial Decommissioning Works and construction works from surface water runoff and the risk of chemical spillages if surface water runoff is allowed to infiltrate to ground. Additionally, there is a potential impact on the groundwater chemical elements due to possible void filling.

5. Conclusions

5.1.1 This WFD Screening and Scoping Assessment has been prepared to identify potentials risks of the Proposed Works to the status and objectives of relevant WFD water bodies. At this stage it has been determined that the Long Pit WFD water body, the Kent Romney Marsh Groundwater Body, the Kent South Coastal Water Body and the Sussex East Coastal Water Body should be screened in for further assessment by virtue of their proximity to the works and the potential for impacts.

5.1.2 A scoping review has also been undertaken to identify which WFD elements may be at risk from Proposed Works activities. Overall, the risks of impacts to WFD water bodies and compliance with WFD objectives is considered to be low, and it is likely that WFD risks can be designed out or mitigated. However, until further information regarding the Proposed Works is available and there is more certainty regarding what impacts may occur, it is not possible to determine the scope of any additional mitigation that may be required to augment design measures already included to ameliorate potential impacts. Therefore, until this clarity is available, risks to WFD objectives cannot be ruled out. Additionally, the beneficial impacts of decommissioning the former power station, opportunities for restoration and habitat enhancement, and the removal of a potentially significant hazard also need to be considered. This assessment therefore concludes that a WFD Impact Assessment will need to be undertaken to demonstrate WFD compliance and support opportunities for long term environmental enhancement where possible. A summary of this conclusion is given in **Table 5-1**.

Table 5-1 Summary of WFD Screening and Scoping Report

Waterbody	WFD Elements	Scoped In/Out
Dengemarsh Sewer (GB107040013450), River	**Overall**	Out
Long Pit (GB30745064), Lake	**Overall**	In
	Fish	In
	Invertebrates	In
	Macrophytes and Phytobenthos Combined	In
	Thermal conditions	Out
	Oxygenation conditions	In
	Salinity	Out
	Acidification status	In
	Nutrient conditions	In
	Additional pollution sources	In
Burrows Pit (GB30745060), Lake	**Overall**	Out
Kent Romney Marsh (GB40702G503900), Groundwater	**Overall**	In

Waterbody	WFD Elements		Scoped In/Out
		Quantitative elements	Out
		Chemical elements	In
Sussex East (GB640704540002), Coastal		**Overall**	In
	Hydromorphology		In
	Water Quality - physico-chemical quality		In
	Water Quality – chemical status		In
	Biology – Habitats		In
	Fish		In
	Water Framework Directive Protected Areas		In
	Invasive Non-Native Species		Out
Kent South (GB640704540001), Coastal	**Overall**		In
	Hydromorphology		In
	Water Quality - physico-chemical quality		In
	Water Quality – chemical status		In
	Biology – Habitats		In
	Fish		Out
	Water Framework Directive Protected Areas		In
	Invasive Non-Native Species		Out

Appendix 20A Marine Heritage Gazetteer

Historic Environment Record ID	Site Name	Description	National Grid Reference	Date
TR 01 NE 248	Unidentified seabed obstruction reported by fishermen. Possibly indicative of wreckage or a submerged feature	Unidentified seabed obstruction reported by fishermen. Possibly indicative of wreckage or a submerged feature.	TR 0500 1673	Later Prehistoric/Modern
TR 01 NE 264	1279 wreck of cargo vessel which stranded at Lydd	The wreck of a cargo vessel which stranded at Lydd. It was laden with timber, iron, textiles, and other goods, she was a wooden sailing vessel. Dated to 1279.	TR 0965 1866	Medieval
TR 01 NE 250	1286 wreck of Spanish cargo vessel which stranded at Dunge Marsh. Location unknown	13th century Spanish cargo vessel. Bound for Spain but became stranded and was plundered by locals.	TR 0969 1694	Medieval
TR 11 NW 9	Unknown	Late post-medieval steamship. Complete wreck with good sonar height. Aft of bridge to stern is intact and on even keel	TR 10994 17097	Post-Medieval
TR 01 NE 29	Metoka	Fully rigged American vessel wrecked in 1852 the Metoka. Crew lost and was stranded in the East Bay of Dungeness.	TR 0992 1696	Post-Medieval
TR 11 NW 7	Unknown	Little is known but this wreck is possibly complete and has a profile of a warship- likely a Destroyer	TR 11616 16225	Post-Medieval/Modern
TR 01 NE 249	Unknown Danish wreck, 1589	16th century Danish cargo vessel which ran aground and was plundered by locals.	TR 0969 1694	Late Medieval
TR 11 NW 6	Unknown	Old wreck - pre-WWI - and apparently sank following a collision for'd as cut in two - both parts lying close together on even keel. It has also been reported as a submarine with seaplane on its deck, but this is not confirmed.	TR 10772 15789	Post-medieval
TR 11 NW 11	Milbanke	This wreck is broken in two, approximately amidships, the aft section is intact. Cargo is lead ingots, probably of Spanish origin, and recovered in 1986. Thought to be the Milbanke.	TR 10515 15377	Post-medieval

Historic Environment Record ID	Site Name	Description	National Grid Reference	Date
TR 11 SW 4	Unknown	No description of the wreck other than Sonar heights.	TR 10099 14275	Post-medieval
TR 01 SE 8	Unknown	Surveyed old steamer 22ft high with a cargo of railway metals	TR 09522 14781	Post-medieval
TR 01 SE 7	Unknown	An unidentified wreck.	TR 08789 14070	Post-medieval
TR 01 SE 6	Unknown	An unidentified wreck. Possibly the Sierra Bravia	TR 08694 13855	Post-medieval
TR 01 SE 5	Unknown	An unidentified wreck. Seabed fairly rough. Length from side scan sonar shadow 150ft	TR 09014 13337	Post-medieval
TR 01 NE 10	Steel pontoons	Steel pontoons were previously recorded as having been washed ashore at this location, although subsequent surveys have been unable to locate the remains.	TR 05240 16743	Post-medieval
TR 01 NE 166	Unknown	A possible Twentieth Century pontoon is visible on vertical aerial photographs of 1941 in shallow water on the beach to the east of the Coastguard Lookout at the Dengemarsh Gut Shafts. It was no longer visible at this location by the time of the next available vertical aerial photograph of 1946.	TR 07010 16473	Post-medieval
TR 01 NE 169	Gwendoline	The partially disintegrating remains of what appears to be a probably post-medieval maritime vessel- The Gwendoline- are visible on vertical and oblique aerial photographs of 1941 as a structure between Dungeness and the Dengemarsh Gut Shafts. It was originally recorded at this location in 1929. By the time of the vertical aerial photographs of 1973 no remains of the vessel were visible	TR 07633 16559	Post-medieval
TR 01 NE 137	Wave	Vessel lost in wind conditions. A British Barque from 1887.	TR 097 170	Post-medieval
TR 01 NE 13	Brittiana	A British sailing vessel- the Brittania- was wrecked in 1764.	TR 0968 1695	Post-medieval

Historic Environment Record ID	Site Name	Description	National Grid Reference	Date
TR 01 NE 14	Pride of the Dee	A merchant ship carrying cargo bound for Dublin. 18th century.	TR 0968 1695	Post-medieval
TR 01 NE 15	Nassau	Wreck of British transport vessel the Nassau. 18th century	TR 0968 1695	Post-medieval
TR 01 NE 18	Neptune	Wreck of British vessel the Neptune. Wrecked in 18th century.	TR 0968 1695	Post-medieval
TR 01 NE 19	Catherine Griffiths	19th century British sailing vessel.	TR 0968 1695	Post-medieval
TR 01 NE 20	Nymph	1818 wreck of British craft which stranded near Dungeness while en route from London for Valparaiso.	TR 0968 1695	Post-medieval
TR 01 NE 21	Commerce	19th century British Brig dated to 1841.	TR 0968 1695	Post-medieval
TR 01 NE 22	Maria	Wooden sailing vessel named the Maria. Dated to 1842	TR 0968 1695	Post-medieval
TR 01 NE 23	Frances	British Schooner dated to 1842, Known as the Frances.	TR 0968 1695	Post-medieval
TR 01 NE 24	Beverley	British sailing vessel known as the Beverley. Wrecked 1842.	TR 0968 1695	Post-medieval
TR 01 NE 25	Bacchus	British Schooner dated to 1850, Known as the Bacchus.	TR 0968 1695	Post-medieval
TR 01 NE 26	Yung Frau Yantyn	Merchant Galliot known as Yung Frau Yantyn. Dated to 19th century	TR 0968 1695	Post-medieval
TR 01 NE 27	Melpomene	19th century merchant brig the Melpomene.	TR 0968 1695	Post-medieval
TR 01 NE 28	Budget	19th century French brig the Budget.	TR 0968 1695	Post-medieval
TR 01 NE 30	Isis	19th century British Schooner the Isis	TR 0968 1695	Post-medieval
TR 01 NE 31	Providentia	Swedish merchant Schooner the Providentia.	TR 0968 1695	Post-medieval
TR 01 NE 32	Laural	19th century wooden sailing vessel the Laurel.	TR 0968 1695	Post-medieval
TR 01 NE 33	Thomas and Ann	19th century sailing vessel the Thomas and Ann	TR 0968 1695	Post-medieval
TR 01 NE 34	Falcon	19th century merchant sailing vessel the Falcon	TR 0968 1695	Post-medieval
TR 01 NE 36	Mazagran	19th century sailing vessel the Mazagran	TR 0968 1695	Post-medieval
TR 01 NE 37	Louise Emile	German merchant vessel. 19th century known as the Louise Emile.	TR 0968 1695	Post-medieval

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TR 01 NE 38	Kate	British Schooner 19th century known as the Kate.	TR 0968 1695	Post-medieval
TR 01 NE 39	Unidentified	Unknown 19th century merchant schooner.	TR 0968 1695	Post-medieval
TR 01 NE 40	Ariadne	British sailing vessel known as the Ariadne. 19th century	TR 0968 1695	Post-medieval
TR 01 NE 41	Eugene	Merchant schooner the Eugene. 19th century	TR 0968 1695	Post-medieval
TR 01 NE 42	Zelima	Merchant schooner the Zelima. 19th century	TR 0968 1695	Post-medieval
TR 01 NE 43	Forsoget	19th century Norwegian sailing vessel the Forsoget.	TR 0968 1695	Post-medieval
TR 01 NE 44	Despina	19th century merchant barque the Despina.	TR 0968 1695	Post-medieval
TR 01 NE 45	Dauphin	19th century French sailing vessel the Dauphin.	TR 0968 1695	Post-medieval
TR 01 NE 46	Louise Emile	19th century sailing vessel the Louise Emile,	TR 0968 1695	Post-medieval
TR 01 NE 47	Prosperitas	19th centry fully rigged merchant ship the Prosperitas	TR 0968 1695	Post-medieval
TR 01 NE 48	Harmony	19th century merchant schooner the Harmony.	TR 0968 1695	Post-medieval
TR 01 NE 49	Enchantress	19th century merchant barque the Enchantress.	TR 0968 1695	Post-medieval
TR 01 NE 50	Ida	19th century merchant steamship the Ida.	TR 0968 1695	Post-medieval
TR 01 NE 52	William Hutt	19th century steamship the William Hutt which sank after collision	TR 0968 1695	Post-medieval
TR 01 NE 53	Cuatro Hermanas	19th century Spanish merchant brig the Cuatro Hermanas. Lost in wind conditions	TR 0968 1695	Post-medieval
TR 01 NE 54	Jane May	19th century English sailing vessel the Jane May. Lost due to Captain error- intoxication.	TR 0968 1695	Post-medieval
TR 01 NE 55	Fox	19th century merchant smack the Fox.	TR 0968 1695	Post-medieval
TR 01 NE 56	Rotterdam Packet	19th century wooden smack the Rotterdam Packet.	TR 0968 1695	Post-medieval
TR 01 NE 57	Amelia	19th century british barque the Amelia.	TR 0968 1695	Post-medieval
TR 01 NE 58	Mary Ann	19th century merchant sloop the Mary Ann	TR 0968 1695	Post-medieval
TR 01 NE 59	Isabella and Jane	19th century sailing brig the Isabella and Jane	TR 0968 1695	Post-medieval

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TR 01 NE 60	Commodore	19th century merchant schooner the Commodore. Lost in wind conditions	TR 0968 1695	Post-medieval
TR 01 NE 61	Terra Nova	19th century mercant brig the Terra Nova.	TR 0968 1695	Post-medieval
TR 01 NE 62	Iola Willie	19th century sailing barque the Iola Willie. Lost due to wind conditions	TR 0968 1695	Post-medieval
TR 01 NE 63	Cruz 5	19th century Spanish merchant barque the Cruz 5.	TR 0968 1695	Post-medieval
TR 01 NE 64	Elvira	Merchant barque the Elvira. 19th century in date.	TR 0968 1695	Post-medieval
TR 01 NE 65	Anne	19th century British merchant vessel the Anne. Lost due to Captain error.	TR 0968 1695	Post-medieval
TR 01 NE 66	Princess of Wales	19th century merchant brig the Princess of Wales. Lost due to weather and wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 67	Sisters	19th century wooden sailing vessel the Sisters.	TR 0968 1695	Post-medieval
TR 01 NE 68	Quintus	19th century merchant vessel the Quintus. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 70	Eugenie	19th century wooden sailing vessel the Eugenie.	TR 0968 1695	Post-medieval
TR 01 NE 71	Ann and Margaret	19th century merchant schooner the Ann and Margaret. Lost due to wind conditions	TR 0968 1695	Post-medieval
TR 01 NE 74	Alice Jane	19th century English schooner the Alice Jane.	TR 0968 1695	Post-medieval
TR 01 NE 75	Garland	19th century merchant schooner the Garland. Lost due to poor weather and wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 76	Jane Goudie	19th century British sailing vessel the Jane Goudie.	TR 0968 1695	Post-medieval
TR 01 NE 77	City of Delhi	19th century merchant sailing vessle the City of Delhi. Fully rigged, bound from Singapore, and sunk due to colision.	TR 0968 1695	Post-medieval
TR 01 NE 78	Courier	19th century merchant brig the Courier.	TR 0968 1695	Post-medieval
TR 01 NE 80	Helen Knapp	19th century British merchant vessel the Helen Knapp. Lost due wind and weather conditions.	TR 0968 1695	Post-medieval

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TR 01 NE 81	Liberia	19th century merchant vessel the Liberia. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 83	Norfolk Hero	19th century British merchant vessel the Norfolk Hero. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 84	Ione	19th century English mechant vessel the Ione. Lost due Masters error.	TR 0968 1695	Post-medieval
TR 01 NE 85	Mary Catherine	19th century English Schooner the Mary Catherine. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 86	Topsy	19th centuyr sailing vessel the Topsy. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 87	Sandringham	19th century merchant snow the Sandringham. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 88	Pelikann	19th century French fishig vessel the Pelikann. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 89	Victorine	19th century merchant schooner the Victorine. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 90	Exertion	19th century merchant sailing vessel the Exertion. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 91	Alabama	19th century merchant barque the Alabama. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 92	Spindrift	19th century fully rigged merchantman the Spindrift. Lost due to Master error.	TR 0968 1695	Post-medieval
TR 01 NE 93	Johann Herman	19th century merchant sailing vessel the Johann Herman. Lost due to weather conditions.	TR 0968 1695	Post-medieval
TR 01 NE 94	Aakanden	19th century merchatn brig the Aakaden. Lost due to weather.	TR 0968 1695	Post-medieval
TR 01 NE 95	Edinburgh	19th century British cutter the Edinburgh.	TR 0968 1695	Post-medieval
TR 01 NE 96	Eleanor	19th century Welsh schooner the Eleanor. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 97	Thomas Hubbuck	19th century merchant schooner the Thomas Hubbuck. Lost due to wind.	TR 0968 1695	Post-medieval

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TR 01 NE 98	Laura Williams	19th century merchant schooner the Laura Williams. Lost due to weather and wind.	TR 0968 1695	Post-medieval
TR 01 NE 99	Albert	19th century British sailing vessel the Albert. Lost due to weather and wind.	TR 0968 1695	Post-medieval
TR 01 NE 100	Busy Bee	19th century British barge the Busy Bee.	TR 0968 1695	Post-medieval
TR 01 NE 101	Gresham	19th century fully rigged merchantman the Gresham. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 102	Flora	19th century wood sailing vessel the Flora. Lost due to heavy seas and wind.	TR 0968 1695	Post-medieval
TR 01 NE 103	Electra	19th century merchant steamer the Electra. Lost due to a collision with other ship.	TR 0968 1695	Post-medieval
TR 01 NE 104	Morning Star	19th century merchant brig the Morning Star. Lost due to weather.	TR 0968 1695	Post-medieval
TR 01 NE 105	Dart	19th century English Schooner the Dart.	TR 0968 1695	Post-medieval
TR 01 NE 106	Fury	19th century merchant brig the Fury.	TR 0968 1695	Post-medieval
TR 01 NE 107	Speculateur	19th century English brig the Speculateur. Lost due to weather and wind.	TR 0968 1695	Post-medieval
TR 01 NE 108	William and Thomas	19th century sailing vessel the William and Thomas. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 109	Northfleet	19th century fully rigged merchant ship the Northfleet. Another ship collided with this vessel whilst the Northfleet was anchored.	TR 0968 1695	Post-medieval
TR 01 NE 110	Iver Hirtfelt	19th century sailing vessel the Iver Hirfelt. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 111	Redente	19th century sailing vessel the Redente. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 112	Europa	19th century sailing vessel the Europa. Lost due to wind,	TR 0968 1695	Post-medieval
TR 01 NE 113	Charles Edwin	19th century English schooner the Charles Edwin. Lost due to wind conditions	TR 0968 1695	Post-medieval
TR 01 NE 114	Star	19th century merchant schooner the Star. Lost due to wind conditions	TR 0968 1695	Post-medieval

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TR 01 NE 115	Sir Robert Peel	19th century English steamer the Sir Robert Peel. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 116	Milbanke	19th century English vessel the Millbanke.	TR 0968 1695	Post-medieval
TR 01 NE 117	Vice-Admiral	19th century British vessel the Vice-Admiral. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 118	Le Bon St Joseph	19th century French sailing vessel the Le Bon St Joseph. Lost due to wind	TR 0968 1695	Post-medieval
TR 01 NE 119	St Malo	19th century fully rigged merchantman the St Malo.	TR 0968 1695	Post-medieval
TR 01 NE 120	Bijou	19th century English sailing yacht the Bijou.	TR 0968 1695	Post-medieval
TR 01 NE 121	Venus	19th century fishing smack the Venus. Lost due to wind	TR 0968 1695	Post-medieval
TR 01 NE 122	Edinburgh	19th century British smack the Edinburgh. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 123	Seagull	19th century merchant barque the Seagull. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 124	Seelust	19th century merchant schooner the Seelust. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 125	Fanny	19th century fishing lugger the Fanny.	TR 0968 1695	Post-medieval
TR 01 NE 126	Anna Maria	19th century merchant schooner the Anna Maria.	TR 0968 1695	Post-medieval
TR 01 NE 127	Chimaera	19th century merchant shcooner the Chimaera.	TR 0968 1695	Post-medieval
TR 01 NE 128	Concordia	19th century merchant brignantine the Concordia. Lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 129	Laura	19th century merchant schooner the Laura. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 130	Excel	19th century Lugger the Excel. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 131	Evelyn	19th century merchant schooner the Evelyn. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 132	Emma	19th century merchant schooner the Emma. Lost due to wind conditions.	TR 0968 1695	Post-medieval

Historic Environment Record ID	Site Name	Description	National Grid Reference	Date
TR 01 NE 133	Notre Dame de Bon Secours	19th century fishing lugger the Notre Dame de Bon Secours. Lost due to collision during bad weather.	TR 0968 1695	Post-medieval
TR 01 NE 134	Norma	19th century Russian merchant schooner the Norma. Lost due to wind	TR 0968 1695	Post-medieval
TR 01 NE 135	Van Diemen	19th century merchant barque the Van Diemen. Lost due to wind,	TR 0968 1695	Post-medieval
TR 01 NE 136	Valhalla	19th century merchant brig the Valhalla. Lost due to wind.	TR 0968 1695	Post-medieval
TR 01 NE 138	Nereid	19th century merchant steamer the Nereid. Lost due to collison with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 139	Killochan	19th century fully rigged merchant ship the Killochan. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 140	Pride of the Dee	19th century merchant schooner the Pride of Dee. Lost due to collision with other ship and wind	TR 0968 1695	Post-medieval
TR 01 NE 141	Margaret Jane	19th century merchant schooner the Margaret Jane. Lost due to collison with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 142	Grundloven	19th century merchant barque the Grundloven. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 143	Venus	19th century merchant ketch the Venus. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 145	Patrician	20th century merchant shcooner the Patrician. Lost due to collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 146	Unknown	20th century British ferry bridge.	TR 0968 1695	Post-medieval
TR 01 NE 147	Ringleader	20th century British schooner the Ringleader. Lost due to wind	TR 0968 1695	Post-medieval
TR 01 NE 148	Jolly Bacchus	19th century sailing vessel the Jolly Bacchus. Cargo ship from Jamaica to London and a hold of rum.	TR 0968 1695	Post-medieval
TR 01 NE 149	Johanne Marie	19th century Norwegian barque the Johanne Marie. Lost due to wind conditions.	TR 0968 1695	Post-medieval

Historic Environment Record ID	Site Name	Description	National Grid Reference	Date
TR 01 NE 150	Harmonie	19th century Norwegian brig the Harmonie. Stranded and lost due to wind conditions.	TR 0968 1695	Post-medieval
TR 01 NE 161	Mary Galley	18th century Dutch merchantman the Mary Galley. Lost due to heavy weather causing it to run aground and wreck.	TR 0968 1695	Post-medieval
TR 01 NE 165	Valhalla	19th century Norwegian merchantman the Valhalla.	TR 0968 1695	Post-medieval
TR 01 NE 170	Unknown wreck	17th century wreck of Dutch cargo vessel.	TR 0968 1695	Post-medieval
TR 01 NE 175	Tokufuku Maru	19th century Japanese merchant ship the Tokufuku Maru.	TR 0968 1695	Post-medieval
TR 01 NE 176	Unknown Cargo Vessel wreck	17th century wreck of a cargo vessel. Run aground then plundered by local men.	TR 0968 1695	Post-medieval
TR 01 NE 180	Unknown	18th century French merchant dogger. Name unknown.	TR 0968 1695	Post-medieval
TR 01 NE 181	Unknown	18th century Dutch merchant hoy. Name unknown	TR 0968 1695	Post-medieval
TR 01 NE 182	Young abraham	18th century British cargo vessel the Young Abraham.	TR 0968 1695	Post-medieval
TR 01 NE 183	Carl august	19th century merchant vessel the Carl August.	TR 0968 1695	Post-medieval
TR 01 NE 184	Britannia	19th century vessel the Britannia.	TR 0968 1695	Post-medieval
TR 01 NE 185	Eliza constantia	19th century Swedish merchant galliot the Eliza Constantia.	TR 0968 1695	Post-medieval
TR 01 NE 186	Regina	19th century vessel lost due to wind and poor weather.	TR 0968 1695	Post-medieval
TR 01 NE 187	Star	19th century English vessel the Star. Lost after running aground.	TR 0968 1695	Post-medieval
TR 01 NE 188	Carl	19th century vessel the Carl. Lost due to poor weather and wind.	TR 0968 1695	Post-medieval
TR 01 NE 189	Peter Elizabeth	19th century vessel the Peter Elizabeth. Lost after running aground.	TR 0968 1695	Post-medieval
TR 01 NE 190	Catherine griffiths	19th century vessel the Catherine Griffiths.	TR 0968 1695	Post-medieval
TR 01 NE 191	Expedition	18th century merchant vessel the Expedition. Lost due to strong wind.	TR 0968 1695	Post-medieval

Historic Environment Record ID	Site Name	Description	National Grid Reference	Date
TR 01 NE 192	Durango	19th century merchant steamship the Durango. Lost after a collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 193	Durange	19th century merchant steamship the Durange. Lost after collision with another ship.	TR 0968 1695	Post-medieval
TR 01 NE 194	Catharine the second	18th century cargo vessel the Catharine the Second. Lost after running aground.	TR 0968 1695	Post-medieval
TR 01 NE 195	Little Sally	18th century vessel lost after running aground. Known as the Little Sally.	TR 0968 1695	Post-medieval
TR 01 NE 196	Minerva	19th century Swedish cargo vessel the Minerva.	TR 0968 1695	Post-medieval
TR 01 NE 197	Unknown	19th century merchant vessel. Lost due to bad weather.	TR 0968 1695	Post-medieval
TR 01 NE 198	Providentia	19th century vessel the Providentia.	TR 0968 1695	Post-medieval
TR 01 NE 199	James and Mary	19th century vessel the James and Mary. Lost due to bad weather.	TR 0968 1695	Post-medieval
TR 01 NE 200	Nymph	19th century British cargo vessel the Nymph.	TR 0968 1695	Post-medieval
TR 01 NE 201	Commerce	19th century British sailing vessel the Commerce.	TR 0968 1695	Post-medieval
TR 01 NE 202	William and Ann	18th century British sailing vessel the William and Ann. Ran aground.	TR 0968 1695	Post-medieval
TR 01 NE 203	Eendraght	18th century cargo vessel the Eendraght. Ran aground	TR 0968 1695	Post-medieval
TR 01 NE 228	PRODROMOS	20th century cargo steamer the Prodromos. Collided with another vessel.	TR 0968 1695	Post-medieval
TR 01 NE 246	Clipper	19th century British cargo vessel the Clipper. Lost after deliberate damage to hold for insurance claim	TR 0969 1694	Post-medieval
TR 01 NE 247	Indus	19th century English cargo vessel the Indus. Became stranded due to wind conditions.	TR 0969 1694	Post-medieval
TR 01 NE 251	1667 wrecks of 3 Flemish cargo vessels which stranded at Dungeness.	17th century Flemish cargo vessel- three in total. Ran aground.	TR 0969 1694	Post-medieval
TR 01 NE 252	Two Brothers	18th century cargo vessel the Two Brothers.	TR 0969 1694	Post-medieval

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TR 01 NE 253	Delfin	19th century Swedish brig the Delfin. Collided with another ship and was lost.	TR 0969 1694	Post-medieval
TR 01 NE 254	Surprise, 1830	19th century cargo vessel the Surprise. Lost due to weather.	TR 0969 1694	Post-medieval
TR 01 NE 255	1827 wreck of English collier	19th century English collier. Lost due to bad winds.	TR 0969 1694	Post-medieval
TR 01 NE 256	Ariel, 1797	18th century cargo vessel the Ariel.	TR 0969 1694	Post-medieval
TR 01 NE 257	1725 wreck of cargo vessel which stranded near Dungeness	18th century cargo vessel lost after running aground.	TR 0969 1695	Post-medieval
TR 01 NE 160	St Antonio Depadua	18th century vessel the St Antonio Depadua	TR 0885 1998	Post-medieval
TR 01 NE 159	Hope	18th century British vessel the Hope.	TR 0886 1997	Post-medieval
TR 01 NE 168	Alice	The remains of Latvian Warship ALICE, which was rammed by a German ship in 1928.	TR 0691 1628	Modern
TR 01 NE 167	Roseburn	The remains of a British merchant ship the Roseburn. Sunk by tornado fire and gunfire from an E boat.	TR 0686 1615	Modern
TR 01 NE 144	Antje	20th century merchant shcooner the Antje. Lost due to wind.	TR 0968 1695	Modern
TR 01 NE 151	Salybia	20th century British steamship the Salybia. Torpedoed and sunk by German U boats.	TR 0968 1695	Modern
TR 01 NE 152	Perseverance	20th century French fishing vessel the Perserverance. Stranded and lost due to wind conditions.	TR 0968 1695	Modern
TR 01 NE 153	Industry	20th century British ketch the Industry. Foundered when moored due to wind conditions.	TR 0968 1695	Modern
TR 01 NE 154	Marinette	20th century French schooner the Marinette.	TR 0968 1695	Modern
TR 01 NE 155	Marcia	20th century British motor vessel the Marcia.	TR 0968 1695	Modern
TR 01 NE 156	Gazelle	20th century British barge the Gazelle, attacked by German submarine.	TR 0968 1695	Modern
TR 01 NE 157	Alice	19th century Russian steamship the Alice.	TR 0968 1695	Modern
TR 01 NE 158	Charente	20th century Norwegian steamship the Charente.	TR 0968 1695	Modern