



The Sizewell C Project

8.12 Ch Mitigation Route Map Third Addendum

September 2021

Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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1 INTRODUCTION

- 1.1.1 In order to demonstrate that all necessary controls and mitigation have been identified and secured for the Application a Mitigation Route Map has been prepared and submitted to the examination. The Mitigation Route Map:
- provides an audit trail of the controls and mitigation measures on which the Environmental Statement, and related assessment documents rely on to avoid, reduce and if possible offset significant impacts of the development; and
 - sets out the way in which they have been, or will be, translated into clear and enforceable controls; either via requirements in the development consent order (DCO) (including the deemed marine licence), the deed of obligation or other consent regimes.
- 1.1.2 This **Mitigation Route Map Third Addendum** is submitted with the Request for Proposed Change 19 and sets out where the **Mitigation Route Map** (Doc Ref. 8.12(C)) submitted at Deadline 7 would be updated by the change. The Proposed Change 19 is described in **Part 1 of the Proposed Further Changes to the Application** (Doc Ref. 9.92 Ch). If Proposed 19 is accepted by the Examining Authority, the Mitigation Route Map will be updated to incorporate the amendments shown in this Mitigation Route Map Third Addendum.
- 1.1.3 Unless specifically stated, where a document reference is provided, it refers to the document series. Refer to the **Navigation Document** (Doc Ref. 1.3(N)) for the latest revision number.

2 UPDATES TO MITIGATION ROUTE MAP ARISING FROM PROPOSED CHANGE 19

Ref	Site	Topic	Mitigation type (IEMA)	Effect	Mitigation / commitment (including specific location and any monitoring required)	Phase (Construction, Operation and/or removal and reinstatement)	Securing Mechanism (references to submission documents)	Source	Related mitigation (cross-reference)
MDS-NV11	Main development site	Noise and Vibration	Primary		Desalination Plant <ul style="list-style-type: none"> Noise-generating plant will all be either containerised or within noise hoarding or similar. Seawater intake pumps will be within the wet well and therefore inaudible at the surface. 	Construction	Requirement 8 (MDS: temporary construction)	Fourth ES Addendum, Section 3.5, paragraph 3.5.8	
MDS-CGH10	Main development site	Coastal geomorphology and hydrodynamics	Primary	To minimise impacts on coastal geomorphology and hydrodynamics from the desalination plant	Desalination Plant <ul style="list-style-type: none"> Using the Horizontal Direct Drilling (HDD) method for both pipelines under the beach and intertidal such that the intake and outfall heads are the only features in the marine environment; Locating the heads seaward of the outer longshore bar and beyond the main areas of longshore transport such that they do not interact with either the major physical features or marine processes of the geomorphology receptor. A small area of concrete mattress may be required to mitigate scour around the pipe connecting the drilled tunnel to each head, which would limit the development of scour at these locations. 	Construction	Requirement 8 (MDS: temporary construction)	Fourth ES Addendum, Section 3.7, paragraph 3.7.10	
MDS-MWQ14	Main development site	Marine water quality and sediments	Primary	To minimise impacts on Marine water quality and sediments from the desalination plant	Desalination Plant <ul style="list-style-type: none"> A trenchless construction method, the Horizontal Direct Drilling (HDD) method for both pipelines under the beach and intertidal such that the intake and outfall heads are the only features in the marine environment; Intake and outfall locations have been selected to avoid overlap with the construction outfall discharge; 	Construction	Requirement 8 (MDS: temporary construction) WDA Construction Permit	Fourth ES Addendum, Section 3.8, paragraph 3.8.11	

Ref	Site	Topic	Mitigation type (IEMA)	Effect	Mitigation / commitment (including specific location and any monitoring required)	Phase (Construction, Operation and/or removal and reinstatement)	Securing Mechanism (references to submission documents)	Source	Related mitigation (cross-reference)
					<ul style="list-style-type: none"> Chlorine dosing flow controlled at the intake head and angled inwards to prevent emissions to the environment; Process and maintenance chemicals would not be discharged, except for phosphorus derived from use of a membrane descaling chemical. Aqueous discharges from chemical treatment will be tankered off-site for disposal. This will include monthly and quarterly maintenance of the 'Clean-In-Place' wastewater from the SWRO and prefiltration (ultrafiltration) systems; A diffuser head will be employed on the brine concentrate discharge to increase mixing and minimise increases in local salinity and influence on the seabed. 				
MDS-MWQ15.	Main development site	Marine water quality and sediments	Tertiary	To minimise the impact of desalination plant outfall discharges on marine water quality.	<p><u>Management and monitoring of discharges via the desalination plant outfall</u></p> <p>Discharges made via the desalination plant outfall would be treated to the limits set by, managed and monitored in accordance with a Water Discharge Activity permit from the Environment Agency.</p>	Construction	WDA Construction Permit	Fourth ES Addendum, Section 3.8, paragraph 3.8.12	
MDS-MEF20	Main development site	Marine Ecology and Fisheries	Primary	To minimise impacts on marine ecology from the desalination plant	<p><u>Desalination Plant</u></p> <ul style="list-style-type: none"> A trenchless construction method using Horizontal Direct Drilling (HDD) for both intake and outfall pipelines under the beach and through the intertidal reduces surface disturbance and ensures that the intake and outfall heads are the only artificial features introduced into the marine environment i.e., no surface laying pipes; Fitting a passive wedge-wire cylinder (PWWC) screen approximately 60cm in diameter and 1.6m in length, with a mesh of approximately 2mm. This screen will prevent ingress of glass eels and other early life stages of fish and larger invertebrates. The headworks would be positioned orthogonal to 	Construction	Requirement 8 (MDS: temporary construction) WDA Construction Permit	Fourth ES Addendum, Section 3.9, paragraph 3.9.12	

NOT PROTECTIVELY MARKED

Ref	Site	Topic	Mitigation type (IEMA)	Effect	Mitigation / commitment (including specific location and any monitoring required)	Phase (Construction, Operation and/or removal and reinstatement)	Securing Mechanism (references to submission documents)	Source	Related mitigation (cross-reference)
					<p>tidal currents to reduce the tidal forcing against the screens and minimise approach velocities.</p> <ul style="list-style-type: none"> Chlorine dosing would be flow controlled at the intake head and angled inwards to prevent emissions to the environment. Process and maintenance chemicals will not be discharged, with the exception of phosphorus derived from use of a membrane descaling chemical. Aqueous discharges from chemical treatment will be tankered off-site for disposal. This will include monthly and quarterly maintenance of the ‘Clean-In-Place’ wastewater from the SWRO and prefiltration (ultrafiltration) systems. Diffuser heads would be fitted on the outfalls to enhance initial mixing and minimise discharge plumes. 				

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