Connah's Quay Low Carbon Power

Environmental Statement Volume II
Chapter 18: Marine Heritage

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18.1 Introduction

Overview

18.1.1 This chapter of the Environmental Statement (ES) presents an assessment of the likely significant environmental effects of the Connah's Quay Combined Cycle Gas Turbine (CCGT) fitted with Carbon Capture Plant (CCP) (hereafter referred to as the Proposed Development) with respect to Marine Heritage during the construction, operation (including maintenance), and decommissioning phases of the Proposed Development. A description of the Proposed Development, including details of maximum parameters, is set out in **Chapter 4: The Proposed Development** (**EN010166/APP/6.2.4**).

18.1.2 The Proposed Development has evolved and changed since the PEIR was produced. As a result of these changes, not all previously described development activities would take place, and thus the impact upon marine heritage has been minimised. Therefore, this chapter has been substantially updated since the PEIR Stage to reflect the design as set out in **Chapter 4: The Proposed Development** (**EN010166/APP/6.2.4**).

18.1.3 This chapter is supported by the following figures in **ES Volume III** (**EN010166/APP/6.3**):

- **Figure 3-3: Areas described in the ES**;
- **Figure 18-1: Marine Cultural Heritage Study Area**; and
- **Figure 18-2: Marine Heritage Assets**.

18.1.4 This chapter is supported by the following appendices in **ES Volume IV** (**EN010166/APP/6.4**):

- **Appendix 1-A: Scoping Report**;
- **Appendix 1-B: Scoping Opinion**;
- **Appendix 2-B: Scoping Opinion Responses**;
- **Appendix 7-A: Legislative, Policy and Guidance Framework for Technical Topics**;
- **Appendix 17-A: Terrestrial Heritage Desk Based Assessment** and
- **Appendix 18-A: Marine Heritage Desk-Based Assessment**.

18.1.5 The **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**) is also relevant to this chapter.

Legislation, Policy and Guidance

18.1.6 Legislation, planning policy, and guidance relating to marine heritage and pertinent to the Proposed Development are listed in **Table 18-1**. Further detail regarding these can be found in **Appendix 7-A: Legislative, Policy and Guidance Framework for Technical Topics** (**EN010166/APP/6.4**).

Table 18-1: Legislation, Planning Policy, and Guidance relating to Marine Heritage

Type	Legislation, Policy and Guidance
Legislation	• Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 18-1); • Protection of Wrecks Act 1973 (Ref 18-2); • Protection of Military Remains Act 1986 (Ref 18-3); • Merchant Shipping Act 1995 (Ref 18-4); • Marine and Coastal Access Act 2009 (Ref 18-5); • Historic Environment (Wales) Act 2023 (Ref 18-6); • The Applications for Scheduled Monument Consent (Wales) Regulations 2024 (Ref 18-7); • The Scheduled Monuments (Partnership Agreements) (Wales) Regulations 2024 (Ref 18-8); • The United Nations Educational, Scientific and Cultural Organisation (UNESCO) Convention 2001 (Ref 18-9); and • The United Convention on the Law of the Sea (UNCLOS) (Ref 18-10).
National Planning Policy	• The Overarching National Policy Statement (NPS) for Energy (EN-1) (Ref 18-11); • The NPS for Natural Gas Electricity Generating Infrastructure (EN-2) (Ref 18-12); • The NPS for Natural Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (Ref 18-13); • The NPS for Electricity Networks Infrastructure (EN-5) (Ref 18-14); • Planning Policy Wales (PPW) (Ref 18-15); • The Welsh National Marine Plan 2019) (Ref 18-16); • UK Marine Policy Statement 2011 (Ref 18-17); • Future Wales: The National Plan to 2040 (Ref 18-18); and • The Technical Advice Note (TAN) 24: The Historic Environment (Ref 18-19).
Local Planning Policy	• Flintshire County Council (FCC) Local Development Plan (LDP) (2015-2030) (Ref 18-20).
National Guidance	• The International Council on Monuments and Sites (ICOMOS), Charter on the Protection and Management of the Underwater Cultural Heritage (Ref 18-21);

Type	Legislation, Policy and Guidance
	• Cadw, Caring for Coastal Heritage (1999) (Ref 18-22); • Cadw, Caring for Military Sites of the Twentieth Century (2009) (Ref 18-23); • Cadw, Conservation Principles for the Sustainable Management of the Historic Environment in Wales (2011) (Ref 18-24); • Cadw, Heritage Partnership Agreements in Wales (2021) (Ref 18-25); • Cadw, Setting of Historic Assets in Wales (2017) (Ref 18-26); • Cadw, Managing the Marine Historic Environment of Wales (2020) (Ref 18-27); • Dredging and Port Construction: Interaction with Features of Archaeological or Heritage Interest (PIANC, 2014) (Ref 18-28); • The Assessment and Management of Marine Archaeology in Port and Harbour Development (Historic England 2016) (Ref 18-29); • CIfA Standard and Guidance for Archaeological Advice by Historic Environment Services (2020) (Ref 18-30); • CIfA Standard and Guidance for Historic Environment Desk-based Assessment (2020) (Ref 18-31); • Heritage Impact Assessment Wales (2017) (Ref 18-32); • Managing Historic Character in Wales (2017) (Ref 18-33); • HM Government (2009) Our Seas – a shared resource: High level marine objectives (Ref 18-34); and • Joint Nautical Archaeology Policy Committee (JNAPC) (2006) Code of Practice for Seabed Development (Ref 18-35).

18.2 Consultation and Scope of Assessment

Consultation

EIA Scoping Opinion

18.2.1 A request for an Environmental Impact Assessment (EIA) Scoping Opinion was sought from the Secretary of State (SoS) through the Planning Inspectorate (PINS) in February 2024 as part of the EIA Scoping Process. The EIA Scoping Opinion was adopted on 20 March 2024 (see **Appendix 1-B: Scoping Opinion** (**EN010166/APP/6.4**)).

18.2.2 Key issues raised in the EIA Scoping Opinion are summarised and responded to in **Table 18-2** and **Appendix 2-B: Scoping Opinion Responses** (**EN010166/APP/6.4**). All issues have been considered during the EIA process.

Statutory Consultation

18.2.3 No responses relevant to marine heritage were received in response to Statutory consultation.

Targeted Consultation

18.2.1 Following Statutory Consultation changes were made to the heights of the proposed absorber and HRSG stacks and the Applicant undertook further targeted consultation. This consultation included a Supporting Information Report which detailed the environmental considerations associated with these changes. This Targeted Consultation was held between Thursday 8 May to Friday 6 June 2025. Responses to this targeted consultation are presented in the **Consultation Report** (**EN010152/APP/5.1**) and **Table 18-3** below outlines how and where these comments have been addressed within this chapter.

Additional Relevant Engagement

18.2.2 A summary of consultation undertaken outside of the EIA Scoping process in relation to the marine heritage assessment is provided in **Table 18-4.**

18.2.3 Engagement has taken place with the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) and Clwyd-Powys Archaeological Trust (CPAT) regarding the requirement for baseline surveys and the scope of the desk-based assessment (DBA), as well as on mitigation strategies and methodologies. This has been summarised in **Table 18-4.**

Table 18-2: Scoping Opinion Responses

Comment ID	Consultee	Comment (or summary of comment)	Response
3.10.2	PINS	'*The Scoping Report proposes to scope out an assessment of the direct impacts on known and potential marine cultural heritage receptors on previously disturbed sediment during construction on the basis that no known marine heritage has been identified within the Proposed Development site, and construction activities will occur on previously disturbed mobile intertidal sediments which have been disturbed by installation of the original outflow. The Inspectorate is content that significant effects on marine cultural heritage during construction, for the reasons noted above, are not likely and this matter can be scoped out*.'	This position on scoping out of impacts to previously disturbed sediment is acknowledged and reflects the assessment approach presented in this chapter.
3.10.4	PINS	'*The Scoping Report notes that significant effects from operational activities and maintenance dredging are unlikely on the basis that these activities will take place in areas where the dredging impact has already occurred.* *The Inspectorate is content that significant effects on marine cultural heritage during construction and operation are not likely and this matter can be scoped out*.'	This position on scoping out effects during operational activities and maintenance dredging on marine heritage is acknowledged and reflects the assessment approach presented in this chapter.
3.10.3	PINS	'*The Scoping Report proposes to scope out an assessment of the indirect impacts on marine heritage receptors due to altered sediment or hydrological processes on the basis that changes to hydrodynamics and sedimentary*	This position on scoping out indirect impacts on marine heritage is acknowledged and reflects the assessment approach presented in this chapter.

Comment ID	Consultee	Comment (or summary of comment)	Response
		processes during construction and operation are expected to be negligible. *The Inspectorate is content that significant effects on marine cultural heritage during construction and operation are not likely and this matter can be scoped out*.'	
3.10.5	PINS	'*The Inspectorate agrees that there is not expected to be any potential impacts to buried marine archaeology during the decommissioning and therefore this matter can be scoped out. The Inspectorate directs the Applicant to comments in ID 2.1.12 which should be addressed in the ES in relation to decommissioning*.'	Impacts of decommissioning on marine heritage have been scoped out of the assessment presented in Section 18.6 of this chapter. This is on the basis that the decommissioning works would be limited to filling of the pipework, with the cooling water infrastructure remaining in-situ.
3.10.6	PINS	'*The Applicant should seek to agree a methodology with relevant consultation bodies including Cadw and Flintshire Council. Cadw have highlighted as part of their representation that the Historic Environment (Wales) Act is to be enacted in the near future, updating a number of guidance and policy documents. The EIA methodology should be based upon the most up to date methodology.*'	The assessment presented in Section 18.6 of this chapter has taken account of the most up to date legislation and policy including the Historic Environment (Wales) Act 2023, and the methodology follows current best practice and guidance. The ES has taken into account updates to the Historic Environment (Wales) Act (Technical engagement has been undertaken with relevant consultees including Cadw and CPAT (the archaeological advisors to Flintshire County Council).
N/A	Cadw	'*It should be noted that the Historic Environment (Wales) Act 2023 will have been enacted before the EIA is completed and that many associated documents, will be updated in accordance with the Act*.'	The *Historic Environment (Wales) Act 2023* is referenced in **Table 18-1**. The Act came into full effect on 4 November 2024.

Comment ID	Consultee	Comment (or summary of comment)	Response
			It is expected that associated regulations and guidance will continue to be updated to reflect the Act and this assessment has taken into account the most up to date legislation, methodology and guidance at the time of writing.
N/A	FCC	Flintshire County Council indicated that for marine and intertidal archaeology and related ship or aircraft wrecks the applicant should consult [redacted] (Marine Investigator) [redacted] regarding this scope and future assessment at the Royal Commission on the Ancient and Historical Monuments of Wales.	Engagement has been undertaken with RCAHMW in order to confirm the scope and methodology for the assessment of impacts to marine heritage assets.
N/A	FCC	Flintshire County Council indicated that they normally expect all of the following sources to have been consulted to inform the baseline data: Designated asset data from Cadw (http://historicwales.gov.uk) Archaeological records held by the National Monuments record RCAHMW Archaeological records held by Clwyd-Powys Archaeological Trust HER (via direct consultation with the HER team [redacted] and not just relying on Archwilio data). Relevant Conservation Area details from Flintshire County Council. Maps, plans and documents held in the Flintshire Archives https://www.newa.wales/	The assessment has utilised the relevant sources listed. A full list is presented in **Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**).

Comment ID	Consultee	Comment (or summary of comment)	Response
		Maps, plans and documentary sources held at National Library of Wales including The Maps of Wales https://places.library.wales/home Records held on the Portable Antiquities Scheme database here https://finds.org.uk/ Readily available and relevant primary and secondary published sources and unpublished archaeological reports. Findings of other environmental topics (landscape, peat, water, soils, noise, & vibration).	
N/A	FCC	'*With regard to reporting and archiving of any archaeological reports produced by the archaeological consultants/contractors for this assessment it should be noted that a high resolution digital pdf will be required by the CPAT Historic Environment Record to be sent via HEDDOS https://cpat.org.uk/heddos.html in accordance with the Welsh Archaeological Trusts HER submission guidelines here https://cpat.org.uk/curatorial-services/historic-environment-record/#page-content And the full digital archive will need to be forwarded to the National Monuments Record, RCAHMW, Aberystwyth and/or the Archaeology Data Service in accordance with their submission guidelines*.'	The Desk-Based Assessment ((**Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**)) will be deposited with the HER when the ES has been submitted in accordance with the requirements of CPAT and in line with their guidance. The full digital archive will be deposited with Archaeology Data Service and submitted to the National Monuments Record and RCAHMW where appropriate.
N/A	FCC	'*We will need to approve a Written Scheme of Investigation (WSI) document (sometimes called a project design) before any new assessment*	An **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**) detailing

Comment ID	Consultee	Comment (or summary of comment)	Response
		work commences and WSI's will be required for any additional geophysics and evaluation trenching also. All WSI's and resulting final reports must include a Data 3 Management Plan (updated for final report), Archive Selection Strategy, Archive Content List and Archive Deposition Location Statement.'	mitigation strategies identified for both terrestrial heritage and marine heritage has been prepared and agreed with CPAT and RCAHMW. The **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**) includes a Data Management Plan, Archive Selection Strategy, Archive Content List and Archive Deposition Location Statement. There is then a requirement in the **Draft DCO** (**EN010166/APP/3.1**) which requires a written scheme for the investigation of areas of archaeological interest to be approved by FCC, such detail to be in general accordance with the **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**).
N/A	FCC	'*We would welcome further direct correspondence and communication with the archaeological consultants/contractor who are engaged to complete the cultural heritage assessment as part of an iterative design process, and we would also wish to see copies of any cultural heritage assessment reports completed as the design process moves forward. We would expect to be consulted on the draft final ES cultural heritage chapter before it is submitted for examination*.'	Correspondence and communication has continued following the EIA scoping process. The chapter has not been supplied for further consultation before submission, because changes to design means the impacts would now be minor to negligible.

Table 18-3: Targeted Consultation

Consultee	Summary of Comment	Response
Flint Town Council	The Council expects: - Transparent, accountable mitigation strategies for all identified environmental risks—including noise and vibration (e.g., from pile driving) in relation to nearby Listed Buildings; - Clear summaries of these assessments for public understanding; Full details of compensation mechanisms available to adversely affected residents and businesses, including: - How compensation will be calculated, - Who will administer the scheme, - How the public will be made aware of it. Additionally, the Council requests: - Clarification on how often the project's environmental performance will be reviewed, and How local residents will be kept informed of those findings.	Details of all mitigation and monitoring proposed is included within the **Commitments Register** (**EN010166/APP/6.10**).

Table 18-4: Additional Relevant Engagement

Consultee	Date and Nature of Consultation	Summary of Response	How and where addressed
CPAT, RCAHMW	1/05/2024 – the Applicant emailed CPAT and RCAHMW to request the to review the WSI for the DBA and for the walkover/Unmanned Aerial Vehicle (UAV) survey. Response received from RCAHMW 2 May 2024,	CPAT and RCAHMW approved the WSI for the DBA and walkover/UAV survey.	No changes were required to the WSI for the DBA and UAV survey.
RCAHMW	01/05/2024 - the Applicant emailed RCAHMW with a draft WSI for the DBA, covering the DBA, geoarchaeological assessment of available geotechnical data and potential walkover survey.	RCAHMW had no comments on the methodology for the DBA, apart from the fact that NMR data is now available through DataMapWales. Additionally, they noted that for completeness of the approach, it would be good to undertake a walkover survey (or UAV survey), to be sure that there are no historical assets in the area of the Proposed Development.	No changes to DBA methodology.
CPAT	01/05/2024 - the Applicant emailed CPAT with a draft WSI for the DBA, covering the DBA, geoarchaeological assessment of available geotechnical data and potential walkover survey.	No response was received regarding changes to DBA methodology.	No changes to DBA methodology.
RCAHMW	05/06/2024 - the Applicant emailed RCAHMW to discuss the	RCAHMW had no concerns about the methodology.	An archaeologist was present during the UAV survey, to ensure

Consultee	Date and Nature of Consultation	Summary of Response	How and where addressed
	methodology for the archaeological walkover/UAV survey.		that if any archaeological material was encountered during the survey, it would be recorded to an appropriate level.
CPAT	05/06/2024 - the Applicant emailed CPAT to discuss the methodology for the archaeological walkover/UAV survey.	CPAT responded to approve the methodology for the survey.	An archaeologist was present during the UAV survey, to ensure that if any archaeological material was encountered during the survey, it would be recorded to an appropriate level.
RCAHMW	04/07/2024 - the Applicant emailed RCAHMW regarding the results of the walkover/UAV survey - no previously unrecorded archaeological material was observed. Methodology and results will be included in the DBA.	RCAHMW acknowledged the update.	The desk-based assessment (**Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**)) has been updated with the walkover survey methodology and results.
CPAT	04/07/2024 - the Applicant emailed CPAT regarding the results of the walkover/UAV survey - no previously unrecorded archaeological material was observed. Methodology and results will be included in the DBA.	CPAT acknowledged the update, and approved reporting in the DBA.	The desk-based assessment (**Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**)) has been updated with the walkover survey methodology and results.
CPAT	29/08/2024 - the Applicant emailed CPAT regarding results of	CPAT agreed with the recommendation but wanted to	An **Overarching Written Scheme of Investigation for Terrestrial**

Consultee	Date and Nature of Consultation	Summary of Response	How and where addressed
	the walkover/UAV survey and mitigation recommendations in the PEIR for informing the ES.	add that in case of an unexpected archaeology discovery, the archaeological contractor/consultant associated with the Proposed Development is contacted first and attend the site.	**and Marine Heritage Mitigation (EN010166/APP/6.8)**, which includes a protocol for unexpected archaeological discoveries (PAD) has been developed as part of the ES, in line with the recommendation from CPAT and RCHAMW.
RCAHMW	29/08/2024 - the Applicant emailed CPAT regarding results of the walkover/UAV survey and mitigation recommendations in the PEIR for informing the ES.	RCHAMW agreed with CAPT.	An **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**), which includes a PAD has been developed as part of the ES, in line with the recommendation from CPAT and RCHAMW.
RCAHMW	29/05/2025 – the Applicant emailed RCAHMW to provide an update on the reduction of works within the Water Connection Corridor and to provide an update on the works within the Surface Water Outfall Area. The Applicant also set out the proposed content of the WSI.	RCHAMW acknowledged the update	The assessment presented in Section 18.6 aligns with the correspondence. The **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**), has been prepared in accordance with the correspondence.
Planning Archaeologist, CPAT (Heneb)	27th June, Email Correspondence	An email was sent by AECOM to confirm the draft WSI shared for comment was aligned to	The version of the WSI shared is consistent with the **Overarching Written Scheme of Investigation**

Consultee	Date and Nature of Consultation	Summary of Response	How and where addressed
Senior Investigator (Marine), RCAHMW		requirements and expectations of CPAT and RCHMW. Emails were received in response to confirm the draft WSI was appropriate and agreeable.	**for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**).

Scope of the Assessment

18.2.4 This assessment has considered assets located within the Water Connection Corridor, both above and below MHWS, and the 1 km buffer (defined study area) as indicated on **Figure 18-1: Marine Cultural Heritage Study Area** (**EN010166/APP/6.3**). **Chapter 17: Terrestrial Heritage** (**EN010166/APP/6.2.17**)**,** and associated appendices, provide an assessment of effects of the Proposed Development on terrestrial heritage.

18.2.5 In line with the EIA Scoping Opinion (**Appendix 1-B: Scoping Opinion** (**EN010166/APP/6.4**)) the following aspects have not been considered within the scope of the assessment in **Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**) or this chapter:

- direct and indirect impacts on known and unknown (previously unrecorded) marine cultural assets on previously disturbed sediment during construction; and
- impacts during decommissioning.

18.2.6 In line with the EIA Scoping Opinion, the following aspects are scoped in:

- direct and indirect impacts on unknown (previously unrecorded) marine heritage resources during construction of the Proposed Development.

18.2.7 Whilst it was agreed to scope out an assessment of operational effects within the EIA Scoping Opinion, further design development and information has been made available, and it is considered appropriate to present an assessment of the potential effects during this phase.

18.3 Assessment Methodology

18.3.1 This section sets out the scope and methodology for the assessment of the impacts of the Proposed Development on marine heritage. This chapter has been conducted according to appropriate professional standards and the guidance set out in **Table 18-1**. Further details of the assessment methodology are set out in **Chapter 2: Assessment Methodology** (**EN010166/APP/6.2.2**).

18.3.2 This chapter encompasses marine heritage assets, which includes marine archaeological remains / deposits, seabed features, prehistoric landscapes, seabed or riverbed prehistory, intertidal heritage assets, maritime and aviation features including shipwrecks and aircraft crash sites and associated material / debris, and the Historic Seascape Character.

18.3.3 The data used for **Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**) and this chapter was requested from the UK Hydrographic Office (UKHO), CPAT Historic Environment Record (HER) and RCAHMW. The details of the data are provided in **Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**).

Impact Assessment

Sensitivity

18.3.4 The sensitivity of an asset is a function of its capacity to accommodate change and reflects its ability to recover if it is affected. With regards to marine heritage, receptor sensitivity is typically assessed using the following factors:

- *adaptability or vulnerability* - the degree to which an asset can avoid or adapt to an effect;
- *tolerance* - the ability of an asset to accommodate temporary or permanent change without significant adverse impact;
- *recoverability* - the temporal scale over and extent to which an asset will recover following an effect; and
- *value* - a measure of the asset's importance, rarity and worth.

18.3.5 The value of marine heritage assets is defined in **Table 18-5**.

Table 18-5: Sensitivity / Value Criteria for Marine Heritage assets

Sensitivity / Value	Sensitivity / Value Criteria
High	• Rare or above average example and / or with significant potential to contribute to knowledge and / or engagement. Assets with a demonstrable international or national dimension to their importance are likely to fall within this category; • wrecked ships and aircraft that are protected under the Protection of Wrecks Act 1973, Historic Environment (Wales) Act 2023 or Protection of Military Remains Act 1986 with an international dimension to their importance, plus as-yet undesignated sites that are demonstrably of equivalent archaeological value; and • known submerged prehistoric sites and landscapes with the confirmed presence of largely in situ artefactual material or palaeogeographic features with demonstrable potential to include artefactual and/or palaeoenvironmental material, possibly as part of a prehistoric site or landscape.
Medium	• Average example and / or moderate potential to contribute to knowledge and understanding and / or engagement; • includes wrecks of ships and aircraft that do not have statutory protection or equivalent significance, but have moderate potential based on a formal assessment of their importance in terms of build, use, loss, survival, and investigation; and • prehistoric deposits with moderate potential to contribute to an understanding of the palaeoenvironment.
Low	• Below average example and / or low potential to contribute to knowledge and understanding and / or engagement;

Sensitivity / Value	Sensitivity / Value Criteria
	• includes wrecks of ships and aircraft that do not have statutory protection or equivalent significance, but have low potential based on a formal assessment of their importance in terms of build, use, loss, survival and investigation; and • prehistoric deposits with low potential to contribute to an understanding of the palaeoenvironment.
Very low	• Poor example and / or little or no potential to contribute to knowledge and understanding and / or engagement. Assets with little or no surviving archaeological interest.

Magnitude

18.3.6 The magnitude of impact upon known and potential marine heritage assets ranges from high to negligible, and is defined by the following factors:

- *scale of change (severity)* – the degree of change to or from the baseline environment relative to existing environmental conditions caused by the impact being described;
- *spatial extent* – the extent of an impact is the full area over which an impact occurs; and
- *duration and frequency* – a measure of how long the impact is expected to last and how often the impact would occur (it may be continuous or periodic).

18.3.7 Within this assessment, the magnitude of impact is defined by the criteria presented in **Table 18-6**.

Table 18-6: Magnitude of Impact Criteria for Marine Heritage

Magnitude	Magnitude Criteria
High	Changes such that the heritage value of the asset is totally altered or destroyed. Comprehensive change to elements of setting that would result in harm to the asset and our ability to understand and appreciate its heritage significance.
Medium	Change such that the heritage value of the asset is significantly altered or modified. Changes such that the setting of the asset is noticeably different, affecting significance changes in our ability to understand and appreciate the heritage value of the asset.
Low	Changes such that the heritage value of the asset is slightly affected. Changes to the setting that have a slight impact on significance resulting in changes in our ability to understand and appreciate the heritage value of the asset.
Very low	Changes to the asset that hardly affect heritage value.

Magnitude	Magnitude Criteria
	Changes to the setting of an asset that have little effect on significance and no real change in our ability to understand and appreciate the heritage value of the assets

18.3.8 With regards to assessing the value of shipwrecks, the following criteria can also be used to assess a receptor in terms of its value, as set out in Cadw's Managing the Marine Historic Environment of Wales (Ref 18-29):

- evidential value;
- historical value;
- aesthetic value; and
- communal value.

Significance of Effect

18.3.9 The significance of the effect on marine heritage receptors is assessed by considering the value of the asset and the magnitude of impact as shown in **Table 18-7**. Effects can be neutral, adverse or beneficial.

18.3.10 Major or moderate effects are deemed to be 'significant' for the purposes of the EIA Regulations, in accordance with standard EIA practice. Minor and negligible effects are deemed to be 'not significant' and may not be important or relevant to the decision-making process, although they may be matters of local concern.

18.3.11 Where the ES identifies that there would be no change to a heritage asset, this is classified as 'no impact' and 'no effect.'

18.3.12 If appropriate, additional mitigation is proposed, as set out in Section 18.7, where significant effects are predicted. It is noted that mitigation does not reduce the magnitude of the impact where the impact relates to physical loss but may reduce the effect if used to offset or compensate for an adverse effect.

Table 18-7: Significance of Effects Matrix

Magnitude of Impact	Sensitivity of Receptor			
	High	**Medium**	**Low**	**Very Low**
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very Low	Minor	Negligible	Negligible	Negligible

Rochdale Envelope

18.3.13 The setting of design parameters using the Rochdale Envelope approach is described in **Chapter 2: Assessment Methodology** (**EN010166/APP/6.2.2**). The maximum parameters for the principal components of the Proposed Development are set out in the **Design Principles Document** (**EN010166/APP/7.8**) and are illustrated on the **Works Plans** (**EN010166/APP/2.4**) and the **Parameter Plans** (**EN010166/APP/2.5**). These parameters, together with assumptions regarding the future plans for the existing Connah's Quay Power Station set out in **Chapter 2: Assessment Methodology** (**EN010166/APP/6.2.2**) have been used to inform the representative worst-case scenario that has been assessed in this chapter, in order to provide a robust assessment of the impacts and likely significance of environmental effects of the Proposed Development at its current stage of design.

18.3.14 Marine heritage could be impacted by removal or damaging of the known and unknown (previously unrecorded) marine heritage assets within the footprint of the Proposed Development. Within the Order limits, as defined in **Figure 3-3: Areas Described within the ES** (**EN010166/APP/6.3**), the only activities with the potential to impact marine heritage are the works in the Water Connection Corridor and the Proposed Surface Water Outfall Area. All other areas of the Order limits are considered within **Chapter 17: Terrestrial Heritage** (**EN010166/APP/6.2.17**). Further information is provided in Section 18.4 where the study area is described.

18.3.15 As described in **Chapter 5: Construction Management and Programme** (**EN010166/APP/6.2.5**), the works within the Water Connection Corridor are limited to the refurbishment and upgrades to existing intake structures, to provide new 2 mm eel screens on the 28 existing cooling water intakes as well as undertake minor repairs to surface concrete, metalwork and timbers. These works would be undertaken by divers and a support boat and/or barge. A working area would be established using scaffolding attached to the existing protection structure and would not require interaction with the riverbed. As described in **Chapter 4: The Proposed Development** (**EN010166/APP/6.2.4**), during operation a jet washing and/or air blast system would be required to keep the intake and outfall structure clear. These systems would only be used at falling tide to return the removed silt to the estuary sediment.

18.3.16 As described in **Chapter 5: Construction Management and Programme** (**EN010166/APP/6.2.5**) the existing Connah's Quay Surface Water Outfall may require maintenance. This area is located within the study area. Further, within the Existing Surface Water Outfall Area a new and permanent outfall structure for surface water drainage discharge from the Main Development Area (the Proposed Surface Water Outfall) would be constructed via trenchless construction methods or with open excavation. In order to construct the required pipeline an excavation is required and would cover an area of up to 650 m^2 with an overall approximate depth of 2 m within the Surface Water Outfall Area.

Assessment Assumptions and Limitations

Historic environment records and archives

18.3.17 The secondary information used to compile this report derives from a variety of sources. It is assumed that the HER data, as well as that derived from other secondary sources, are reasonably accurate.

18.3.18 It is acknowledged that the records held by the UKHO, RCAHMW, HER, and the other sources used in this assessment are not a record of all surviving heritage assets, rather a record of the discovery of a wide range of archaeological and historical components of the marine historic environment. The information held within these datasets does not therefore preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown. In particular, this relates to buried archaeological features.

18.3.19 The data supplied by the UKHO, RCAHMW and HER were obtained in March 2024 and are considered current for the purposes of this informing the preparation of the baseline.

Geotechnical data

18.3.20 A part of data collection for the DBA is looking into geoarchaeological data. For the DBA a geoarchaeological assessment has been undertaken. A total of 105 previous Ground Investigations (GI) (Ref 18-36, Ref 18-37, Ref 18-38, Ref 18-39, Ref 18-40) were reviewed with the aim of identifying deposits of archaeological and geoarchaeological significance in the study area. The data reviewed for the geoarchaeological assessment included geotechnical GI undertaken between 1962 and 1991. Only the data from 1991 included spatial data and therefore the deposit modelling is based on this data. For the remainder of the sources, the exact location of the GI interventions is uncertain, however, the majority appear to be outside of the specific study area.

18.3.21 The GI data were acquired in 1991, prior to the construction of the existing Connah's Quay Power Station. Since then, the existing Connah's Quay Power Station Site has been developed and therefore some of the deposits have been impacted, and there are areas that now comprise made-ground. However, where deposits have not been impacted, they retain the geoarchaeological and archaeological potential identified through the assessment.

18.4 Baseline Conditions and Study Area

18.4.1 This section presents a summary of the marine heritage study area and the baseline conditions. The supporting analysis undertaken to develop this baseline is provided in **Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**).

Study Area

18.4.2 The study area used within this chapter comprises the Water Connection Corridor (both above and below MHWS) with a 1 km buffer (the study area) as shown on **Figure 18-1: Marine Cultural Heritage Study Area**

(**EN010166/APP/6.3**). This study area was chosen to provide sufficient spatial context from existing historic environment records in order to develop a baseline for this assessment.

Existing Baseline

18.4.3 The existing baseline has been developed through a combination of desk study and field surveys. All the known and designated sites are discussed in this section.

Desk Study

18.4.4 A desk study of the following data was undertaken in the desk-based assessment (**Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**)):

- UKHO data for charted wrecks and obstructions;
- National Heritage List maintained by Cadw comprising data of designated heritage assets including sites protected under the PMRA 1986 and the PWA 1973;
- National Monuments Record of Wales maintained by Coflein and derived from information by RCAHMW, comprising data for terrestrial and marine archaeological sites, finding spots and archaeological events;
- Lle Geo-Portal;
- the relevant HERs particularly from CPAT;
- relevant mapping including Admiralty Charts, historic maps and Ordnance Survey;
- relevant documentary sources and grey literature held by Wessex Archaeology, and those available through the Archaeological Data Service and other websites; and
- Welsh Research Frameworks.

18.4.5 Within the footprint of the Water Connection Corridor and the Surface Water Outfall Area there are no designated marine sites, no known shipwreck sites, no known aviation sites, no prehistoric sites, and no recorded marine and aviation losses.

18.4.6 A search of records in the UKHO, RCAHMW and HER dataset revealed seven assets within the study area, as shown on **Figure 18-2: Marine Heritage Assets** (**EN010166/APP/6.3**).

18.4.7 The RCAHMW dataset consists of two assets in the study area. The first asset **1001** (located approximately 740 m from the Water Connection Corridor) is a post medieval beacon that marks the western end of a revetment or training wall. The second asset **1002** (located approximately 530 m from the Water Connection Corridor) comprises the Connah's Quay road bridge, which was constructed in 1996.

18.4.8 The HER dataset consists of five assets in the study area. The first asset **1003** (located approximately 580 m from the Water Connection Corridor) is a post medieval breakwater, constructed in 1839. The second asset **1004**

(located approximately 1040 m from the Water Connection Corridor) is a post-medieval flood defense embankment or reclamation embankment. The third and fourth assets **1005** and **1007** (located approximately 1120 m from the Water Connection Corridor) consist of a modern water management reservoir and the last asset **1006** is a modern port or river embankment.

18.4.9 All of these known assets are located outside of the Water Connection Corridor and the Surface Water Outfall area, and although they are within the wider study area, they are not anticipated to be impacted by the Proposed Development and are therefore not discussed further. There is potential for unknown (previously unrecorded) marine heritage assets to survive within areas of potential impact. These receptors are set out in **Table 18-8**.

Table 18-8: Sensitive Receptors within the Existing Baseline

Sensitive Receptor	Value (unknown until discovery, but could be)	Potential to be discovered in areas of impact
Potential shipwreck and aircraft crash site material	High	Low
Potential prehistoric sites and find spots, palaeoenvironmental evidence, and evidence of early use of the coastal/intertidal area (for example fish traps).	High	Low
Potential late post-medieval and modern industry-related construction and infrastructure	Medium to Low	Low

18.4.10 Potential marine heritage assets are considered to be of high value until proven otherwise, based on the precautionary principle. However, based on their relatively recent date, potential late post-medieval and modern industry-related construction and infrastructure are considered to be of medium to low value.

Shipwreck material

18.4.11 There are no known shipwreck sites in the Water Connection Corridor and study area. It is expected that there is a low potential for encountering unrecorded (previously unknown) shipwreck material within the Water Connection Corridor or Surface Water Outfall area and a medium potential for encountering unrecorded (previously unknown) shipwreck material in the study area.

Aircraft material

18.4.12 No aircraft remains are known in the Water Connection Corridor, Surface Water Outfall area or study area. There is a low potential for encountering unrecorded (previously unknown) aircraft material in the Water Connection Corridor and Surface Water Outfall area, and a medium potential for

encountering unrecorded (previously unknown) aircraft material in the study area.

Prehistoric landscapes

18.4.13 The landscape consisting of water, coastal marshland, sand and sandbanks create an environment where ancient land surfaces from the later prehistoric period can be preserved and evidence of past landscapes and human interactions can be preserved. However, the geoarchaeological assessment has indicated that the sediments assessed within the study area were of low archaeological potential. There remains low potential for the discovery of peat (which would be of high archaeological potential) in the Water Connection Corridor and Surface Water Outfall area, and medium potential in the wider study area, as peat deposits have been encountered beyond the study area. Additionally, the alluvium could preserve shipwreck material.

Industry related construction and old infrastructure

18.4.14 There are currently no known or designated intertidal assets in the Water Connection Corridor and the study area. There is a low potential for encountering unknown (previously unrecorded) intertidal assets in the Water Connection Corridor and a medium to low potential for encountering unknown (previously unrecorded) intertidal assets in the study area.

Future Baseline

18.4.15 In the absence of the Proposed Development, there would be no change to known and potential marine heritage receptors, beyond those caused by natural physical processes and natural deterioration. It is expected that over the next 50 to 100 years, the sandbanks in the Dee Estuary will continue to shift. There would likely be changes to the sediments covering and uncovering unknown (previously unrecorded) wooden / iron shipwrecks or submerged prehistoric sites. The coastal marshland, sand and sandbanks create an environment where ancient land surface from the prehistoric period can be persevered. The shifting of the sandbanks can expose these ancient landscapes and make them vulnerable to decay.

18.5 Development Design and Embedded Mitigation

Design development

18.5.1 The Proposed Development has been designed, as far as possible, to avoid or minimise impacts and effects on marine heritage through the process of design development. As part of the process the Applicant has refined the proposals for cooling water infrastructure within the Water Connection Corridor and these works are now limited to refurbishment and upgrades rather than the provision of new cooling water infrastructure, which has minimised impacts on marine heritage assets.

Embedded Mitigation

The Proposed Development has been designed, as far as possible, to avoid or minimise impacts and effects on marine heritage through the process of design development, and by embedding measures into the design of the Proposed Development.

Construction

18.5.2 As detailed in the **Framework Construction Environmental Management Plan (CEMP)** (**EN010166/APP/6.5**) the works in the Water Connection Corridor would be carried out at low tide, when the existing intake structures are exposed and accessible by foot. For some works there may need to be a barge positioned alongside the intake infrastructure, which would remain floating at all times (i.e. no jack-up barge would be involved in any aspect of eel screen replacement). There would be no interaction with the riverbed during the construction works.

18.5.3 It is expected that the Proposed Surface Water Outfall will be installed into an extension of the existing headwall via trenchless construction methods or open excavation. Should open excavation be required it would be limited to areas to the edge of the saltmarsh and outside of the existing mudflat habitat and undertaken either by hand or use of mini diggers. In addition, any large plant required for the lifting of trench support panels etc. such as cranes and/or long reach excavators must also be located on the access road to the northern side of the existing Connah's Quay Power Station fence line and must not enter areas of saltmarsh. Materials storage and location of plant would to be limited to the area between the existing headwall and the existing access road to the northern side of the existing Connah's Quay Power Station fence line or this access road itself within the Surface Water Outfall Area, or otherwise within the Main Development Area.

Operation

18.5.4 During the operation of the Proposed Development, there would be periods of maintenance of the cooling water infrastructure, it is assumed these maintenance works would be undertaken in a similar manner to construction works and working methods as defined above would be employed to ensure there would be no interaction with the riverbed. This commitment is captured in **Appendix 4-A: Operation and Maintenance Mitigation Register** (**EN010166/APP/6.4**).

Decommissioning

18.5.5 Whilst decommissioning is scoped out of the assessment, it is noted that a Decommissioning Environmental Management Plan (DEMP) would be produced in time for the decommissioning phase.

18.5.6 At the end of its operational life, decommissioning activities are assumed to be limited to filling of the pipework, with the cooling water infrastructure remaining in-situ. The final details of the required works would be detailed in the DEMP.

18.6 Assessment of Likely Impacts and Effects

18.6.1 Taking into account the embedded mitigation measures set out in Section 18.5 above, the potential impacts and effects of the Proposed Development have been assessed using the methodology in Section 18.3 of this chapter and **Chapter 2: Assessment Methodology** (**EN010166/APP/6.2.2**).

18.6.2 Within the footprint of the Water Connection Corridor there are no designated marine sites, no known shipwreck sites, no known aviation sites, no prehistoric sites, and no recorded marine and aviation losses. Additionally, due to the proposed nature of the development activities, no impact from the Proposed Development is to be expected.

18.6.3 Although there are no known assets in the Water Connection Corridor or the study area, there is a low potential for unknown (previously unrecorded) marine heritage assets to be discovered in the Water Connection Corridor and medium potential for unknown marine heritage assets to be discovered in the study area. Impacts on marine heritage assets are always high. This is because marine heritage assets are a finite, non-renewable source, with no potential for recovery. The expected impacts for the construction, operation and decommissioning phases of the Proposed Development are discussed in the paragraphs below.

Construction

Water Connection Corridor

18.6.4 According to the desk-based assessment, walkover survey, and orthophoto assessment (**Appendix 18-A: Marine Heritage Desk-Based Assessment** (**EN010166/APP/6.4**)), there are no known marine heritage assets in the vicinity of the Order limits. There is always a chance, however, to encounter unknown marine heritage assets.

18.6.5 Works within the Water Connection Corridor would not require interaction with the riverbed; all material and plant (if required, as the majority of the work is expected to require only hand tools) would be stored within the support barge and a working area would be established. As there is no expected interaction with the riverbed, there would be no direct impacts on unknown (previously unrecorded) marine heritage assets within the Water Connection Corridor. The value of unknown marine heritage assets is identified as high (until proven otherwise), however, due to construction methodologies, there would be no impact, resulting in a finding of **No Effect**, which is considered **not significant**.

18.6.6 **Chapter 16: Physical Processes** (**EN010166/APP/6.2.16**) identifies that any changes to estuary bed / river bed morphology are expected to be minor and not significant. Therefore, it is expected that there would be no indirect impacts on previously unrecorded marine heritage assets within the Water Connection Corridor as a result of changes to estuary bed / river bed morphology. As a worst-case, any effects would be considered to have a very low impact magnitude. This impact on assets of potentially high value would result in a **minor adverse** effect, which is considered **not significant**.

Surface Water Outfall Area

18.6.7 As set out in technical report, there are no known marine heritage assets in the vicinity of the Surface Water Outfall Area. However, there is potential for previously unknown features to be present, such as shipwreck material, aviation material and evidence of activities on the riverside, as well as peat lenses. Due to the nature of the expected works within the Surface Water Outfall Area, of excavation to an approximate depth of 2 m, there could be

potential for direct physical impacts on previously unknown marine heritage assets.

18.6.8 At the Surface Water Outfall, there has been some previous impact from the existing outfall. However, sediments that have not previously been impacted are likely to consist of alluvium, according to nearby borehole data.

18.6.9 There are no known marine heritage assets within the study area. However, there is a medium potential for such remains to survive within the study area and medium potential for encountering marine heritage assets within the study area. Should prehistoric evidence, peat layers, maritime or aviation assets or intertidal assets be identified, they could be considered to be of high value until proven otherwise. The magnitude of impact could be high, leading to **major adverse effects**, which would be considered **significant**. However, as noted in Section 18.5 above, the excavation would take place locally and in the top 2 m of sediment. Therefore, the chances of encountering unknown marine heritage assets would be low and the chances of encountering peat layers would be low.

18.6.10 In terms of indirect impacts, there could be localised erosion along the Kelsterton Brook as a result of flows from the new outfall, which could lead to the exposure of previously unrecorded assets. The potential for erosion losses from the additional discharge has been explored. The discharge rate of the Proposed Surface Water Outfall is modelled to be 420 l/s with a velocity of 0.9 m/s. The velocities provided relate to the flow in the pipe which discharges into the concrete outfall structure that is approximately 2.5 m wide. These velocities will therefore be further reduced in the short section of the outfall structure to less than 0.5 m/s at the exit point, even for the most extreme case provided meaning erosion is unlikely. Exposure could lead to permanent damage to potential archaeological features (which should be considered to be of high value until proven otherwise). Although any erosion would be localised, the magnitude could be medium, which would lead to **major adverse** effects, which would be considered **significant**.

Operation

Water Connection Corridor

18.6.11 During the operational phase a compressed air blasting system and, if required, a jet washing system would be used to perform maintenance operations. The use of retrievable screens for mechanical cleaning may be required if the air blasting system and jet washing system may not be suitable for maintaining a clean flow through the screens. A compressed air blast / jet washing system would be used to clear any build-up of silt on the intake screens. The jet blasting would be undertaken to a limited spatial extent and would be undetectable from background levels on the subsequent flood tide.

18.6.12 Whilst it is likely that there would be no direct or indirect impacts from the use of these systems on marine heritage assets and/or paleoenvironmental layers, as a worst-case these impacts would be considered to be very low magnitude. This impact on assets of potentially high value would result in a **minor adverse** effect, which is considered **not significant**.

Surface Water Outfall

18.6.13 As with construction, there could be localised erosion along the Kelsterton Brook as a result of low flows from the new outfall, which could lead to the exposure of previously unrecorded assets. Exposure could lead to permanent damage to potential archaeological features (which should be considered to be of high value until proven otherwise). Although the erosion would be localised, the magnitude could be medium, which would lead to **major adverse** effects, which would be considered **significant**.

18.7 Additional Mitigation and Enhancement Measures

18.7.1 In the Water Connection Corridor no potential significant effects on known or unknown marine heritage assets and archaeological remains have been identified and therefore no specific additional mitigation measures have been identified. However, there is always a potential for unknown (previously unrecorded) marine heritage assets to be encountered.

18.7.2 In the wider study area, including at the Surface Water Outfall Area, there is a medium potential for encountering shipwreck material, aviation material, peat layers, prehistoric evidence and intertidal heritage assets, and therefore potential for significant effects without additional mitigation.

18.7.3 An **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**) has been prepared to cover terrestrial heritage assets and has been extended to cover marine heritage. The measures set out in this document relevant to marine heritage include a watching brief during excavation works at the Surface Water Outfall Area and a walkover to assess erosion once the outfall is operational, and a protocol for unexpected archaeological discoveries (PAD) to be implemented during construction works when an archaeologist is not present. The **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**) has been agreed with RCAHWM and CPAT.

18.7.4 A watching brief is a formal programme of archeological monitoring in which a qualified archeologist monitors the proposed works. The purpose of the watching brief is to monitor the proposed works for potential marine heritage assets and to support the project team in handling and documenting any type of marine heritage asset.

18.7.5 The purpose of the PAD is to ensure that unexpected discoveries – including submerged prehistoric material, shipwreck material, aircraft remains, and any other archaeological material – are addressed in a timely and appropriate matter. This measure does not replace the process of archaeological assessment and evaluation but rather acts as a safety net in the event of unexpected discoveries during the course of development works.

18.7.6 In the event of unexpected marine heritage discoveries, the implementation of the PAD process set out within the **Overarching Written Scheme of Investigation for Terrestrial and Marine Heritage Mitigation** (**EN010166/APP/6.8**) could also lead to beneficial effects, for example the

publication (or deposition of grey literature reports with a suitable archive) of the results of additional assessments (i.e. the investigation of any previously unknown shipwreck, aircraft, or prehistoric material) would enable understanding of these marine heritage assets in the wider community.

18.8 Summary of Residual Effects

18.8.1 With the implementation of the mitigation measures outlined above, the significance of effects of the development on marine heritage receptors is expected to be **minor adverse** (**not significant**) or **No Effect**.

18.8.2 **Table 18-9** and **Table 18-10** summarise the residual effects of the Proposed Development in relation to marine heritage. In summary, there are no significant residual effects associated with construction, operation (including maintenance) or decommissioning of the Proposed Development. The impact on any potential assets that may be discovered during works would need to be assessed on a case-by-case basis to determine value, magnitude of impact and significance of effect.

Table 18-9: Summary of Residual Effects (Construction)

Receptor	Sensitivity (value)	Magnitude of Impact (prior to Additional Mitigation)	Classification of Effect (prior to Additional Mitigation)	Additional Mitigation/Enhancement Measure	Magnitude of Impact after Additional Mitigation	Residual Effect
Previously unrecorded marine heritage assets (Water Connection Corridor) – direct effects	High	No Impact	No Effect	WSI and PAD	No Impact	No Effect (not significant)
Previously unrecorded marine heritage assets (Water Connection Corridor) – indirect effects	High	Low	Minor	WSI and PAD	Low	Minor adverse (not significant)
Previously unrecorded marine heritage assets (Surface Water Outfall Area) – direct effects	High	Low	Major adverse	WSI and PAD	Low	Minor adverse (not significant)
Previously unrecorded marine heritage assets (Surface Water Outfall Area) – indirect effects	High	Low	Major adverse	WSI and PAD	Low	Minor adverse (not significant)

Table 18-10: Summary of Residual Effects (Operation)

Receptor	Sensitivity (value)	Magnitude of Impact (prior to Additional Mitigation)	Classification of Effect (prior to Additional Mitigation)	Additional Mitigation/Enhancement Measure	Magnitude of Impact after Additional Mitigation	Residual Effect
Previously unrecorded marine heritage assets (Water Connection Corridor)	High	Very low	Minor adverse	WSI and PAD	Very low	Minor adverse (not significant)
Previously unrecorded marine heritage assets (Surface Water Outfall Area)	High	Very low	Major adverse	WSI and PAD	Very low	Minor adverse (not significant)

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