WFD Compliance Assessment

OGN 72 Appendix 2 WFD Compliance Assessment template

- **In completing this template for a WFD compliance assessment, refer to OGN72 (link) for definitions, processes and further links to useful websites.**

If there are any problems or issues with the information in this desk instruction, you must report it to the responsible Manager Team member named as the owner and guidance.development@cyfoethnaturiolcymru.gov.uk

Version History			
Document Version	**Date Published**	**Summary of Changes**	**Authorised by**
1	September 2020	Document created and ready for trialling	
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WFD Compliance Assessment template

Contents

Figure 1: Stage 1 Screening

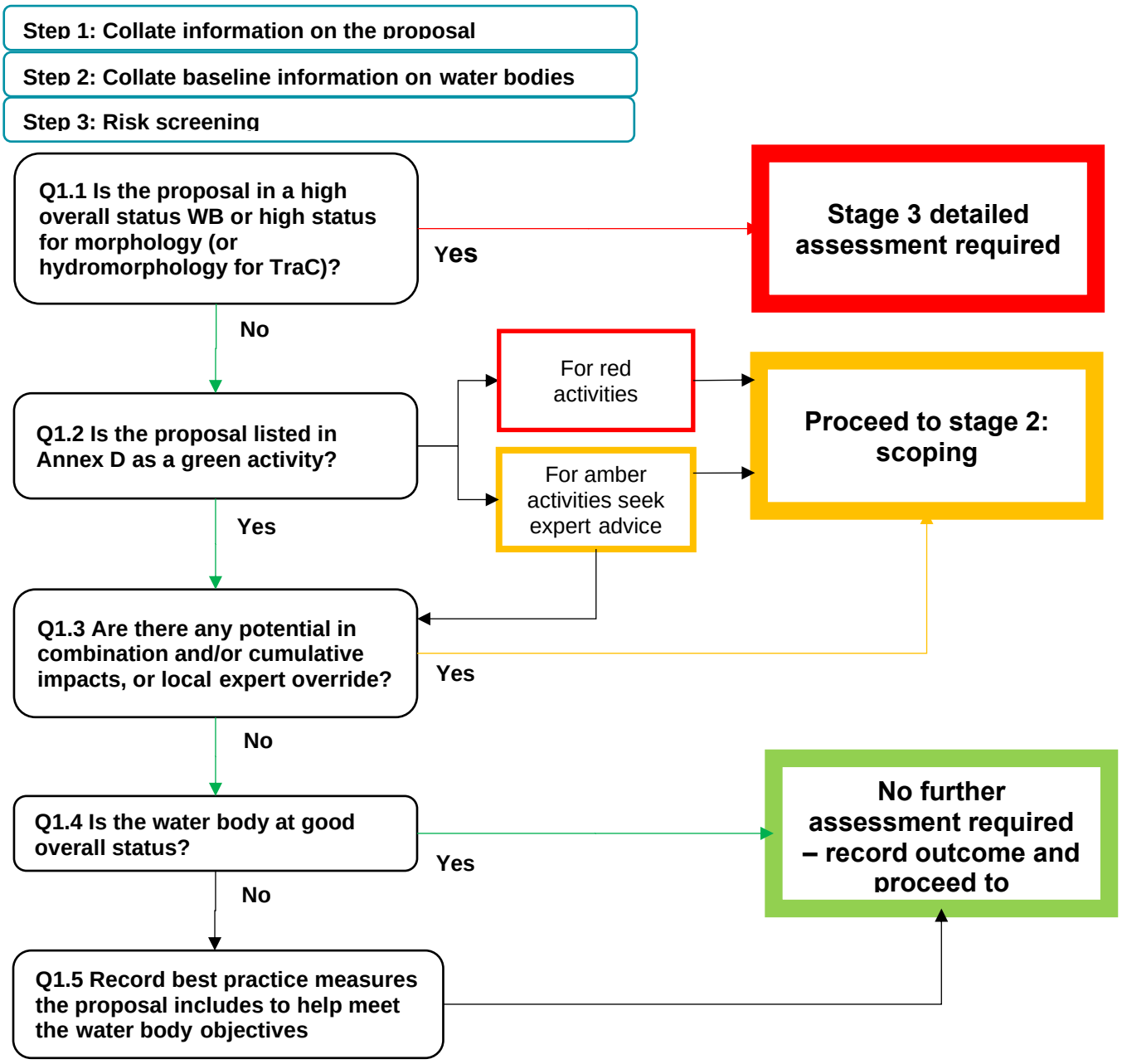
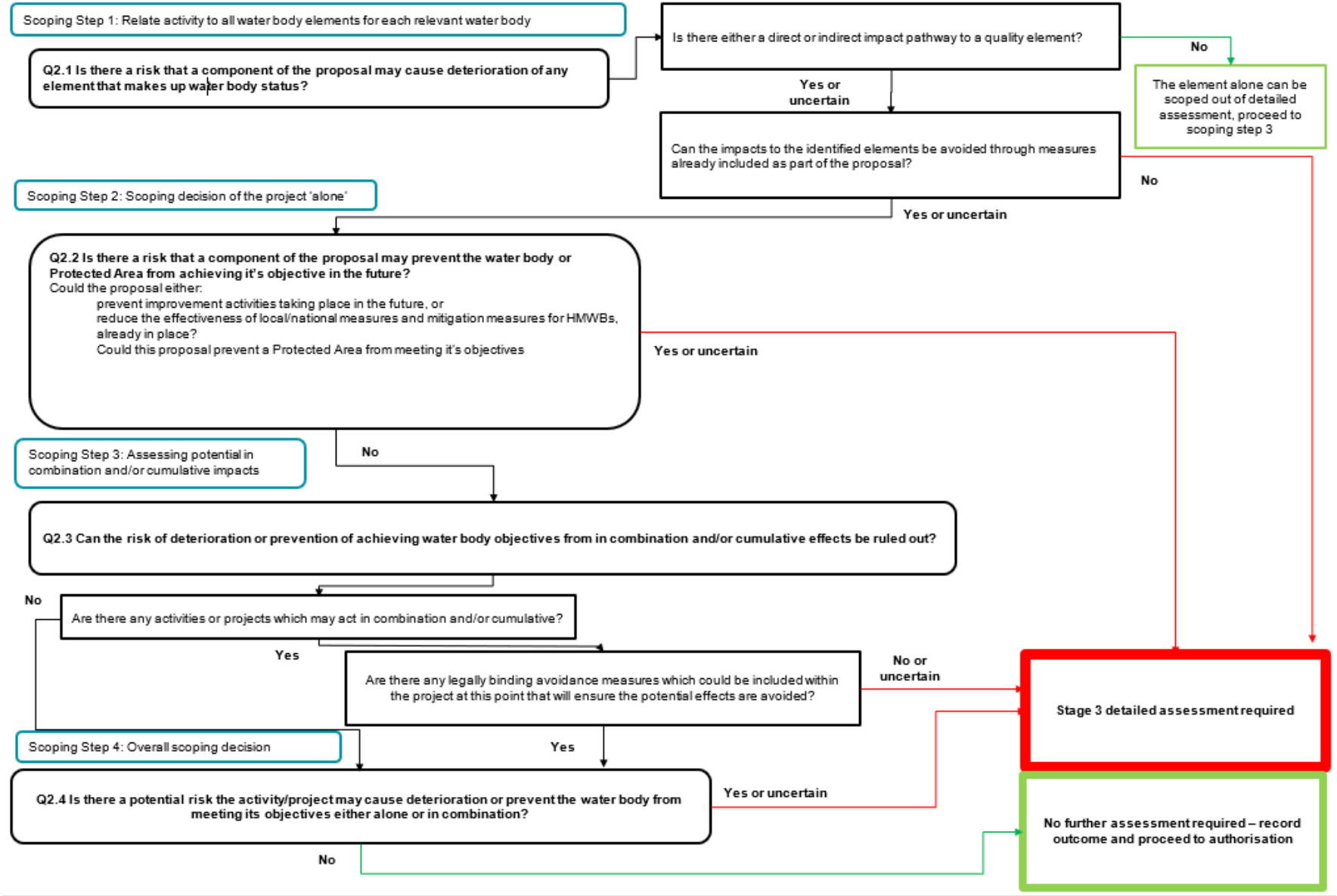


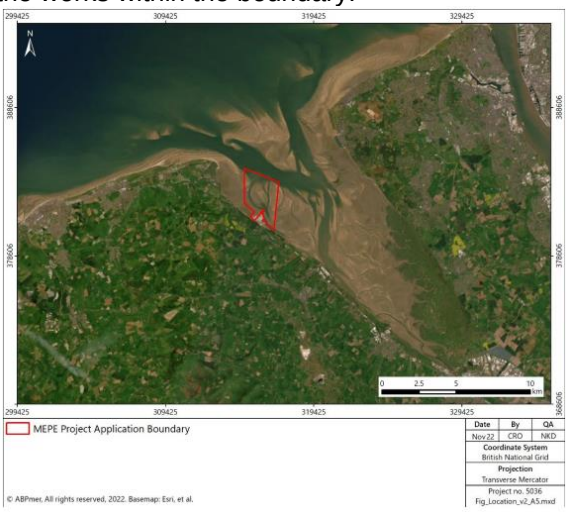
Figure 2: Stage 2 Scoping



WFD Compliance Assessment of *Mostyn Energy Park Extension (MEPE)*

Stage 1 step 1: proposal details.

a): Project details where an external party has applied to NRW for any form of authorisation		
Project details	**Application reference number (if applicable)**	CML2283
	Date application received	Received 13/12/2022, considered duly made on the 17/01/2023
	Applicant details	The Port of Mostyn Ltd
	Activity proposed	Mostyn Energy Park Extension (MEPE) The key elements of the proposed project are detailed below; while further detail can be found within the ES – (chapter 2 and 3) Construction of 360 m length of new quay, involving a reclamation (approximately 3.5 ha) to provide a continuous berthing frontage for the construction and O&M requirements of the offshore wind sector; Capital dredging to create a new berth pocket alongside new quay wall, dredge the berths along the existing quay and the main navigation channel; Reuse a selected proportion of the suitable capital dredge arisings as engineering fill material for the reclamation and dispose of the remainder at the existing Mostyn Deep disposal site (IS102); relocation of four existing dolphins (piles) to create a berth for Service Operation Vessels (SOVs) to provide O&M requirements of the offshore wind sector; Maintenance dredging for the new berth, existing berths, navigational channel and harbour area; Disposal of maintenance dredge material at the existing marine disposal sites at Mostyn Deep (IS102) and Mostyn Breakwater (IS103) and/or pumped ashore to be used in other projects. Use of reclaimed area as a storage/laydown area; and The application had initially included the potential construction of a RoRo linkspan however in email dated 3 October 2024 it was confirmed that the construction of the linkspan is no longer required. In addition, works at Mostyn Scrape Back was presented as part of the initial proposal as environmental enhancement, however following the conclusion of the HRA, the environmental enhancement work are now proposed to contribute to provide an area for compensation alongside work at the Warwick foreshore remedial site. Further details surrounding the compensation measures are detailed with ABPmer Report (September 2024).

	Relevant legislation	Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017
	List other permissions that may be required where known	N/A
	Location (include map where appropriate)	The Marine Energy Park Extension project is situated adjacent to the Port of Mostyn on the Welsh Side of the Dee Estuary. Boundary of works can be seen in the figure below. Figure 3.1 and 3.2 of chapter 3 Project Methodology of the ES provides further detail of the works within the boundary. 
	Application documents *Include: Project purpose and background, site map, scaled plan, site photographs and working method statement.*	Marine Licence application form (2 forms provided, 1 Marine Works and 1 Dredge Application Form). See supporting documents below as part of the ES.
	Environmental Statement	Yes Environmental Statement: Non-Technical Summary Environmental Statement Chapter 1: Introduction Environmental Statement Chapter 2: Proposed Development Environmental Statement Chapter 3: Project Methodology Environmental Statement Chapter 4: Legislative and Consenting Framework Environmental Statement Chapter 5: Impact Assessment Approach Environmental Statement Chapter 6: Physical Processes Environmental Statement Chapter 7: Water and Sediment Quality

		Environmental Statement Chapter 8: Nature Conservation and Marine Ecology Environmental Statement Chapter 9: Fisheries Environmental Statement Chapter 10: Commercial and Recreational Navigation Environmental Statement Chapter 11: Flood Risk and Drainage Environmental Statement Chapter 12: Cultural Heritage and Marine Archaeology Environmental Statement Chapter 13: Cumulative and In-combination Effects Environmental Statement Chapter 14: Summary Environmental Statement Appendix 1.1: EIA Competency Statement Environmental Statement Appendix 4.1: Marine Plan Conformance Assessment in NRW template Environmental Statement Appendix 6.1: Waste Hierarchy Assessment Environmental Statement Appendix 6.2: Model Calibration Report Environmental Statement Appendix 7.1: Water Framework Directive Assessment Environmental Statement Appendix 7.2: Sediment sample plan analysis results in NRW template Environmental Statement Appendix 8.1: Benthic Ecology Survey Report Environmental Statement Appendix 8.2: Fish and Marine Mammals Surveys Environmental Statement Appendix 8.3: Coastal Bird Surveys Environmental Statement Appendix 8.4: Underwater Noise Assessment Environmental Statement Appendix 8.5: Habitats Regulations Assessment Environmental Statement Appendix 10.1: Navigational Risk Assessment Terminology Environmental Statement Appendix 11.1: Flood Consequence Assessment Environmental Statement Appendix 12.1: Marine Archaeology Desk-Based Assessment Further Information was submitted; Further Information Report (ABPmer August 2023) Appendix A MEPE comment log 21 Jul 2023 NRW Advisory signposting document Updated Marine Works Application form dated 1 September 2023 Updated Dredge and disposal Application form dated 30 August 2023 Tracked changed version of each of the above application forms. Submitted supporting reference documents; ERM Breakwater Environmental Statement HRW_EX4630 Sep 2002 Maintenance of Navigation Channel monitoring protocols Mostyn channel monitoring protocols Dec 08

		Mostyn Dock ES update final issued 18.09.02 Port of Mostyn ES 24.10.2007 Further Information was submitted; Further Information Report (ABPmer March 2024) Appendix A MEPE comment log 27 March 2024 On the 2 August 2024, NRW provided the applicant with the opportunity to provide information to meet the requirements of Article 6(4) of the Habitat Directive, namely, there are no feasible alternative solutions, there is overriding public interest for the plan to proceed, and that necessary compensation can be secured. On the 20 September the applicant submitted ABPmer Report (document reference R4606) providing the requested information.
	List ongoing maintenance requirements. All structures will require maintenance	As detailed above - Maintenance dredging for the new berth, existing berths, navigational channel and harbour area will be required; Disposal of maintenance dredge material at the existing marine disposal sites at Mostyn Deep (IS102) and Mostyn Breakwater (IS103) and/or pumped onshore.
	Timing of works	Capital dredging of the navigation channel may extend throughout the duration of the licence as illustrated within the Further Information Report (ABPmer 2023). Maintenance dredging will be ongoing at the site, the licence applied for is for a duration of 7 years.
	Pre-application correspondence	Scoping received from MLT reference SC2107 Table 1 within Appendix 7.1 of the ES summarises consultation taken prior to determination associated with the WFD
	Are the works located within a WFD waterbody? Or do they have the potential to impact upon a WFD water body? Waterbodies include surface waters (rivers, lakes, transitional waters, and coastal waters out to 1 nautical mile) and groundwaters	Yes
	NRW team responsible for drafting this WFD Compliance Assessment **report, and name of lead officer**	Marine Licensing Team
	Date of assessment	**12 November 2024**

Stage 1, step 2: Collate baseline information on all water bodies at risk from the proposal.

Date of classification information: Cycle 3

WB ID	Water body name	WB type	Management catchment	HMWB	Overall water body status	Ecological status	Chemical status	Hydro-morphology status*	Relevance to the proposal
GB531106708200	Dee (N Wales)	Transitional	Dee Estuary	Yes	Moderate	Good	Moderate	Not high	Proposal is: • in the water body
GB641011650000	North Wales	Coastal	Western Wales	Yes	Moderate	Moderate	Moderate	N/A	Proposal is: • Hydrologically linked/close proximity (approx. 2km)

**where there is no information, or a null value then assume it is at good status for morphology (or hydromorphology for TraC water bodies)

The potential for the proposal to affect the following water bodies was also initially considered, but can be ruled out without further consideration:

As detailed within Appendix 7.1 of the ES, given the nature and scale of activities (i.e., piling, dredging and disposal within transitional water body), it is considered unlikely that there would be a significant non-temporary effect on the Dee Carboniferous Coal Measures groundwater water body, which lie beneath the southern bank of the Dee Estuary. It is noted that this groundwater water body covers a large proportion of the Dee River Basin District, and thus the MEPE Project is considered unlikely to cause deterioration in status at the water body level. Therefore, groundwater water bodies have been screened out of the assessment and will not be discussed further.

In consultation response dated 7 March 2023 NRW A advised that the WFD assessment considers upstream river WFD water bodies due to the potential for the project to impact migratory fish species (including trout, Atlantic salmon, European eels, river and sea lamprey). As detailed with Appendix 7.1 of the ES Y Garth River water body and Nant Sir Roger (Dee estuary) river water bodies drain into the Dee Estuary. These water bodies are beyond the normal tidal limit (NTL) or behind a sluice/weir. The Further Information Report (ABPmer August 2023) notes that effect of piling and dredging and disposal are considered within section 4.3.1

and 4.3.2 of Appendix 7.1 of the ES (WFD), and is also considered below in relation to the Dee (N. Wales) transitional water body and North Wales coastal waterbody. The proposal is not expected to lead to a deterioration of the assessed fish elements within the Dee (N. Wales) transitional water body or North Wales coastal water body, nor prevent these water bodies from meeting their WFD objectives. As deterioration can be ruled on the migratory fish element of the nearest waterbodies to the proposed work, it is also therefore possible to screen out the further upstream WFD river waterbodies.

Stage 1, Step 3: Risk Screening

Question number	Risk screening questions	Name of activity	Screening decision – delete as appropriate
Q1.1	**Is the proposal in a water body at high status or high status for morphology** or hydromorphology?	N/A	~~**Yes – complete detailed assessment for each water body**~~ **No** – go to Q1.2
Q1.2	**Is the activity listed in Annex D as a green activity?** Complete new row for each activity	Maintenance Dredging	~~**Yes** – go to Q1.3~~ **No – complete scoping assessment for each water body** For amber activities then seek expert advice
		Disposal of sediment	
		Construction of new quay wall, including capital dredging	~~**Yes** – go to Q1.3~~ **No – complete scoping assessment for each water body** For amber activities then seek expert advice
		Construction of RoRo linkspan and relocation of existing dolphins	~~**Yes** – go to Q1.3~~ **No – complete scoping assessment for each water body** For amber activities then seek expert advice

Question number	Risk screening questions	Name of activity	Screening decision – delete as appropriate
~~Q1.3~~	~~Are there any potential cumulative/in combination impacts? Or is there Local Expert Override*?~~	~~**Yes/No**~~	~~**Yes – complete scoping assessment for each water body**~~ ~~**No** – go to Q1.4~~
~~Q1.4~~	~~Is the water body at Good overall status?~~	~~**Yes/No**~~	~~**Yes, no further WFD assessment needed - Go to Authorisation**~~ ~~**No** - Go to Q1.5~~
~~Q1.5~~	~~Record best practice measures that the works include to help achieve the objectives of the water body.~~	~~**Include all measures then proceed to Authorisation section**~~ ~~*For example, a biosecurity plan to ensure the project/activity doesn't introduce or spread Invasive Non-Native Species.*~~	

**Expert judgement may be required i.e. for complex or cumulative interactions; or a particularly sensitive site/activity (including target water bodies).*

Stage 2: Scoping Assessment for: GB531106708200 - Dee (N Wales)

Each component of the works should be included, for example: a hydropower scheme may include in-channel impoundment, creation of depleted reach, and bank reinforcement for turbine house. Include vegetation removal/management as a scheme component. Where there is a lack of confidence on whether there is potential risk to an element then these should be scoped in for further assessment.

Stage 2, step 1 – relate activity to all water body elements for each relevant water body

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
Transitional and Coastal water bodies	Choose one of the following: **Direc**t – risk of direct impact **Indirect** – risk of indirect impact **N/A – no impact pathway** **N/A – other** – include additional text to explain	Further detail on potential impacts. Where N/A is included then provide detail to explain.	**Colour text in green if all impacts can be avoided through measures already included in the scheme. Or red for schemes which require detailed assessment**
Hydromorphology – hydromorphology constitutes both 'hydrology' and 'geomorphology' and describes the physical characteristics and processes of a water body. ***Could the proposal lead to changes in:***			
• morphological conditions, for example depth variation, the seabed and intertidal zone structure	Direct – risk of direct impact	There is a potential impact pathway to morphological conditions as a result of the capital and maintenance dredging, disposal of material and the presence of the new quay wall and dredge pocket.	Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
		Impact of the works on hydromorphology has been considered with ES Chapter 6 Physical processes and further presented in relation the WFD in Appendix 7.1 Water Framework Directive assessment which concludes; Slight changes in flow speed are predicted to extend around 2km up-estuary of the Port and down-estuary across the Mostyn Channel and Salisbury Bank are predicted. The largest predicted magnitude of change is anticipated within the berth pocket itself (particularly towards the northern end). Hydrodynamic forcing within (and adjacent to) the proposed MEPE facility will only be marginally altered and, therefore, changes in the sediment pathways will be small. Predicted changes to future sediment transport are greatest within the proposed dredge pocket and deepened approach channel, which may require future maintenance dredging to ensure sufficient under keel clearance for vessels on berth. Outside the proposed berth pocket and approach channel, the proposed development has limited impact on the baseline sediment transport pathways. Overall the proposed development is not predicted to result in any significant changes in hydromorphology, and therefore is not expected to lead to a deterioration of this element. Therefore, impacts to morphological conditions can be scoped out.	
• tidal patterns, for example, dominant currents	N/A – no impact pathway		Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
• freshwater flow	N/A – no impact pathway		Scoped out
• wave exposure	Yes - direct	As detailed within Appendix 7.1 of the ES (WFD assessment); Marginal changes to significant wave height (Hs) are likely to result from the MEPE facility and approach channel deepening. The extent of impact is generally constrained to the areas within, and adjacent to, the dredge works. For the assessed extreme event, slight changes in wave height (typically less than ±5-10 % of baseline values) are predicted to extend around 500 m either side of the approach channel and around 200 m up-estuary of the proposed berth pocket. The largest predicted magnitude of change is within the reclamation area (as a result of the reclaim itself) and within the dredged berth pocket/approach channel. Therefore, due to the small levels of change, impacts can be scoped out.	Scoped out
Is the proposal in a HMWB?	Yes, the waterbody is designated as heavily modified - 'navigation, ports and harbours'.		If yes, then scope in for detailed assessment.
Water quality An activity can modify the flow of water, introduce artificial materials or remove sediment and/or vegetation. These can all affect the water quality – particularly physio-chemical aspects of water quality - such as levels of dissolved oxygen, nutrients and ammonia. Include water quality in the detailed assessment if the activity could affect:			
• water clarity (turbidity or suspended particulate matter concentration)	Yes – direct impact	Impact of the works on turbidity and suspended sediment quality has been considered with ES Chapter 6 Physical processes, ES Chapter 7 Water Quality and further	Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
		presented in relation the WFD in Appendix 7.1 Water Framework Directive assessment which concludes; That increase in suspended sediment concentration (SSC) could occur as a result of piling, dredging and disposal activities. It is acknowledged that the SSC levels during the disposal of dredged material will initially be high however given the high natural levels within the estuary, and high tidal flow the levels are expected to reduce below natural storm disturbance condition quickly and measurable plume from each disposal operation is only likely to persist for a single tidal cycle with concentration returning back to background levels. Based on the above the proposed development is not predicted to result in any significant changes in water clarity/turbidity, and therefore is not expected to lead to a deterioration of this element. Therefore, impacts to this element can be scoped out.	
• thermal conditions (including shading)	N/A – no impact pathway predicted.		Scoped out
• oxygen levels – dissolved oxygen conditions	Yes – direct impact pathway	Chapter 7 Water Quality section 7.7.1 and 7.7.6 consider potential changes to dissolved oxygen concentration as a result of increased SSC during both construction and operation phase. Any reduction in dissolved oxygen concentration will be localised, short lived and replenished over the subsequent tidal cycle, therefore changes to dissolved oxygen	Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
		concentration during both construction and operation are not considered significant and therefore are not expected to lead to deterioration of this element.	
• nutrients - dissolved inorganic nitrogen	Yes - direct	As presented within in Appendix 7.1 Water Framework Directive assessment which concludes that the amount of nutrients introduced into the water column by dredging will be small relative to other sources in the estuary, such as from agricultural surface run-off. The scale of temporary increases in nutrient levels during dredging is therefore likely to be small. Any change will be short-lived and within the range of natural variability in the study area. Therefore, no deterioration on this element is predicted.	Scoped out
• microbial patterns	N/A – no impact pathway predicted		Scoped out
• salinity/conductivity	N/A – no impact pathway predicted		Scoped out
• is in a water body with a phytoplankton or opportunistic macroalgae status of moderate, poor or bad	Indirect	No, phytoplankton classification is currently good. As detailed above potential impact on dissolved oxygen and turbidity has been ruled out, therefore no significant impact is predicted.	Scoped out
• is in a water body with a history of harmful algae (where there is an existing designation for the area, information should be available; however, local water quality officers will be able to help).	Indirect	There is a history of harmful algae at the proposed location. As detailed above in relation to nutrient, the proposed works are not predicted to have a significant impact on nutrient levels during the proposed operation. Therefore, potential changes to nutrient concentrations in the water column during dredging is unlikely to result in algal bloom.	Scoped out
Chemicals - A detailed assessment will also be required if the activity uses or releases chemicals, for example, through sediment disturbance or building works. This is necessary when either the:			

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
• chemicals are on the Environmental Quality Standards Directive (EQSD) list	direct	Potential impact through risk of pollution incident including accidental spills.	General pollution prevention best practice measure would be secured through licence conditions, in addition the applicant has proposed the production of, and adherence to a Construction Environment Management Plan. Scoped out.
• activity disturbs sediment with contaminants (for estuarine and coastal above Cefas Action Level 1).	**Direct** – risk of direct impact	As detailed in Environmental Statement Appendix 7.1 (WFD assessment); There is a potential for sediment-bound to be disturbed and dispersed during dredging and piling. A summary of sediment analysis has been provided. There are instances where concentrations are above Cefas Guidance Action Level 1 however there are no instances where these exceed Action Level 2. Overall, the uplift in contaminant concentrations is anticipated to be minimal, and unlikely to present a significant issue at the water body level. It is, therefore, considered unlikely that the proposed dredging activity would cause even a short-term deterioration in water quality with regards to contaminants.	Scoped out
• or, if the activity releases chemicals on the EQSD list and has a mixing zone, like a discharge pipeline or outfall, follow the Environment	**N/A – no impact pathway**		Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
Agency's surface water pollution risk assessment guidance. This is part of the Environmental Permitting Regulations guidance.			
Biology Identify if the activity or project could impact on the abundance or composition of the biological elements listed below: Biological elements for transitional (T) and coastal (C) waters under the directive are: • Benthic invertebrates (T, C) • Fish (T) • Phytoplankton (T, C) • Macroalgae (T, C) • Angiosperms (T, C) ***Could the proposal lead to:***			
• changes to the composition and abundance of aquatic flora	N/A – no impact pathway		Scoped out
• changes to the composition and abundance of benthic invertebrate fauna	Direct – risk of direct impact	There is a potential impact pathway to benthic invertebrate fauna from the proposed project; • Changes to habitats as a result of sedimentation • Changes in subtidal habitat as a result of removal of seabed • Habitat loss	Scoped In for detailed assessment
For TraC water bodies - scope in if the footprint (where footprint can be direct or a plume i.e. chemical or thermal; for dredging multiply the area by 1.5x) of your activity is:			
• 0.5km^2 or larger	No – the footprint of the works totals 0.41km^2.		Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: Dee (N Wales) Water body ID: GB531106708200			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
• 1% or more of the water body's area	No – the footprint comprises 0.4% of water body.		Scoped out
• Within 500m of any higher sensitivity habitat (see table below)	**Direct** – risk of direct impact	There is a potential impact to mussel beds including blue and horse mussel, also saltmarsh is within 500m.	Scoped In for detailed assessment
• 1% or more of any lower sensitivity habitat (see table below)	**Direct** – risk of direct impact	Footprint covers 6% of soft subtidal sediment.	Scoped In for detailed assessment
Fish fauna (Transitional water bodies only): could the proposal lead to:			
• changes to the composition, abundance and age structure of fish fauna	**Direct** – risk of direct impact	Potential impact on fish features due to; • Direct loss or change of habitat • Changes in water and sediment quality • And underwater noise and vibration during construction There is potential for fish to become entrained during the use of the cutter suction dredger or trailer suction hopper dredger (TSHD). However, the scale of such impacts is considered negligible given the regular maintenance dredging activity that is already undertaken at the Port of Mostyn.	Scoped In for detailed assessment
• an impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)	**Direct** – risk of direct impact		Scoped In for detailed assessment
• entrainment or impingement of fish	**Direct** – risk of direct impact		Scoped out
• refuge/predation areas	**n/a**		Scoped out
Or: is the proposal in an estuary and could affect fish in the estuary; is outside the estuary but could delay or prevent fish entering it; or, could affect fish migrating through the estuary	**Direct** – risk of direct impact		Scoped In for detailed assessment

Info for TraC water bodies
Extract from EA Clearing the water for All
Higher and lower sensitivity habitats for TraC water bodies

Higher sensitivity habitats [2]	Lower sensitivity habitats [3]
chalk reef	cobbles, gravel and shingle
clam, cockle and oyster beds	intertidal soft sediments like sand and mud
intertidal seagrass	rocky shore
maerl	subtidal boulder fields
mussel beds, including blue and horse mussel	subtidal rocky reef
polychaete reef	subtidal soft sediments like sand and mud
saltmarsh	
subtidal kelp beds	
subtidal seagrass	

[2] Higher sensitivity habitats have a low resistance to, and recovery rate, from human pressures.
[3] Lower sensitivity habitats have a medium to high resistance to, and recovery rate from, human pressures.

Scoping table for Transitional and Coastal water bodies

Water body name: North Wales
Water body ID: GB641011650000

Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
Transitional and Coastal water bodies	Choose one of the following: **Direc**t – risk of direct impact **Indirect** – risk of indirect impact **N/A – no impact pathway** **N/A – other** – include additional text to explain	Further detail on potential impacts. Where N/A is included then provide detail to explain.	**Colour text in green if all impacts can be avoided through measures already included in the scheme. Or red for schemes which require detailed assessment**

Scoping table for Transitional and Coastal water bodies Water body name: North Wales Water body ID: GB641011650000			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
Hydromorphology – hydromorphology constitutes both 'hydrology' and 'geomorphology' and describes the physical characteristics and processes of a water body. ***Could the proposal lead to changes in:***			
• morphological conditions, for example depth variation, the seabed and intertidal zone structure	**Direc**t – risk of direct impact	The proposed construction and dredge falls within the Dee (N.Wales) waterbody which has been considered above, however the Mostyn Deep disposal site overlaps with North Wales waterbody. As discussed above Impact of the works on hydromorphology has been considered with ES Chapter 6 Physical processes and further presented in relation the WFD in Appendix 7.1 Water Framework Directive assessment which concludes, changes are predicted to be small and relatively localised to the port. Overall the proposed development is not predicted to result in any significant changes in hydromorphology, and therefore is not expected to lead to a deterioration of this element. Therefore, impacts to morphological conditions can be scoped out.	Scoped out
• tidal patterns, for example, dominant currents	**N/A – no impact pathway**		Scoped out
• freshwater flow	**N/A – no impact pathway**		Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: North Wales Water body ID: GB641011650000			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
• wave exposure	**Direct**	As detailed within Appendix 7.1 of the ES (WFD assessment); Marginal changes to significant wave height (Hs) are likely to result from the MEPE facility and approach channel deepening. The extent of impact is generally constrained to the areas within, and adjacent to, the dredge works. Therefore, due to the small levels of change, and the location of the dredge and land reclamation outside the waterbody impacts can be scoped out.	Scoped out
Is the proposal in a HMWB?	Yes, recorded as HMWB due to coastal protection.		Scoped in.
Water quality An activity can modify the flow of water, introduce artificial materials or remove sediment and/or vegetation. These can all affect the water quality – particularly physio-chemical aspects of water quality - such as levels of dissolved oxygen, nutrients and ammonia. Include water quality in the detailed assessment if the activity could affect:			
• water clarity (turbidity or suspended particulate matter concentration)	Yes – direct impact	Impact of the works on turbidity and suspended sediment quality has been considered with ES Chapter 6 Physical processes, ES Chapter 7 Water Quality and further presented in relation the WFD in Appendix 7.1 Water Framework Directive assessment which concludes; That increase in suspended sediment concentration (SSC) could occur as a result of piling, dredging and disposal activities.	Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: North Wales Water body ID: GB641011650000			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
		It is acknowledged that the SSC levels during the disposal of dredged material will initially be high however given the high natural levels within the estuary, and high tidal flow the levels are expected to reduce below natural storm disturbance condition quickly and measurable plume from each disposal operation is only likely to persist for a single tidal cycle with concentration returning back to background levels. Based on the above the proposed development is not predicted to result in any significant changes in water clarity/turbidity, and therefore is not expected to lead to a deterioration of this element. Therefore, impacts to this element can be scoped out.	
• thermal conditions (including shading)	N/A – no impact pathway predicted.		Scoped out
• oxygen levels – dissolved oxygen conditions	Yes – direct impact pathway	Chapter 7 Water Quality section 7.7.1 and 7.7.6 consider potential changes to dissolved oxygen concentration as a result of increased SSC during both construction and operation phase. Any reduction in dissolved oxygen concentration will be localised, short lived and replenished over the subsequent tidal cycle, therefore changes to dissolved oxygen concentration during both construction and	Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: North Wales Water body ID: GB641011650000			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
		operation are not considered significant and therefore are not expected to lead to deterioration of this element.	
• nutrients - dissolved inorganic nitrogen	Yes - direct	As presented within WFD in Appendix 7.1 Water Framework Directive assessment which concludes that the amount of nutrients introduced into the water column by dredging will be small relative to other sources in the estuary, such as from agricultural surface run-off. The scale of temporary increases in nutrient levels during dredging is therefore likely to be small. Any change will be short-lived and within the range of natural variability in the study area. Therefore, no deterioration on this element is predicted.	Scoped out
• microbial patterns	N/A – no impact pathway predicted		Scoped out
• salinity/conductivity	N/A – no impact pathway predicted		Scoped out
• is in a water body with a phytoplankton or opportunistic macroalgae status of moderate, poor or bad	Indirect	Yes, phytoplankton classification is currently moderate. As detailed above potential impact on dissolved oxygen and turbidity has been ruled out, therefore no significant impact is predicted.	Scoped out
• is in a water body with a history of harmful algae (where there is an existing designation for the area, information should be available; however, local water quality officers will be able to help).	Indirect	Harmful algae history unknown. As detailed above in relation to nutrient. The proposed works are not predicted to have a significant impact on nutrient levels during the proposed operation. Therefore, potential changes to nutrient concentrations in the water column	Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: North Wales Water body ID: GB641011650000			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
		during disposal is unlikely to result in algal bloom.	
Chemicals - A detailed assessment will also be required if the activity uses or releases chemicals, for example, through sediment disturbance or building works. This is necessary when either the:			
• chemicals are on the Environmental Quality Standards Directive (EQSD) list	**Direct**	Potential impact through risk of pollution incident including accidental spills.	General pollution prevention best practice measure would be secured through licence conditions, in addition the applicant has proposed the production of, and adherence to a Construction Environment Management Plan. Scoped out.
• activity disturbs sediment with contaminants (for estuarine and coastal above Cefas Action Level 1).	**Direct** – risk of direct impact	As detailed in Environmental Statement Appendix 7.1 (WFD assessment); There is a potential for sediment-bound to be disturbed and dispersed during dredging and piling. A summary of sediment analysis has been provided. There are instances where concentrations are above Cefas Guidance Action Level 1 however there are no instances where these exceed Action Level 2. Overall, the uplift in contaminant concentrations is anticipated to be minimal, and unlikely to present a significant issue at the water body level. It is, therefore, considered unlikely that the proposed dredging activity would cause even a short-term deterioration in water quality with regards to contaminants.	Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: North Wales Water body ID: GB641011650000			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
• or, if the activity releases chemicals on the EQSD list and has a mixing zone, like a discharge pipeline or outfall, follow the Environment Agency's surface water pollution risk assessment guidance. This is part of the Environmental Permitting Regulations guidance.	**N/A – no impact pathway**		Scoped out
Biology Identify if the activity or project could impact on the abundance or composition of the biological elements listed below: Biological elements for transitional (T) and coastal (C) waters under the directive are: • Benthic invertebrates (T, C) • Fish (T) • Phytoplankton (T, C) • Macroalgae (T, C) • Angiosperms (T, C) ***Could the proposal lead to:***			
• changes to the composition and abundance of aquatic flora	N/A – no impact pathway		Scoped out
• changes to the composition and abundance of benthic invertebrate fauna	N/A – no impact pathway	There is a potential impact pathway to benthic invertebrate fauna from the proposed project; • Changes to habitats as a result of sedimentation	Scoped In for detailed assessment
For TraC water bodies - scope in if the footprint (where footprint can be direct or a plume i.e. chemical or thermal; for dredging multiply the area by 1.5x) of your activity is:			
• 0.5km^2 or larger	no		Scoped out

Scoping table for Transitional and Coastal water bodies Water body name: North Wales Water body ID: GB641011650000			
Elements	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure included within the project at this point that will ensure the potential effects are avoided)
• 1% or more of the water body's area	no		Scoped out
• Within 500m of any higher sensitivity habitat (see table below)	no		Scoped out
• 1% or more of any lower sensitivity habitat (see table below)	no		Scoped out
Fish fauna (Transitional water bodies only): could the proposal lead to: As detailed in OGN 72 Fish elements are not considered as part of the biological quality element of coastal waterbodies therefore have not be considered further for the North Wales waterbody.			

Invasive Non-Native Species
Refer to the Check Clean Dry campaign to help prevent the spread of invasive plants and animals in British waters. You can find out more about INNS on the GB Non-native Species Secretariat website

Risks of introducing or spreading INNS include: • materials or equipment that have come from, had use in or travelled through other water bodies • activities that help spread existing INNS, either within the immediate water body or to other water bodies **Does the activity or project have the potential to introduce or spread INNS to a water body?**			
Add in each relevant WB ID Use a separate row for each WB ID	**Applicable**	**Potential Impact** (include direct and indirect potential impacts)	**Avoidance measures** (briefly describe any measure **included within the project** at this point that will ensure the potential effects are avoided)
	Choose one of the following: **Direct** – risk of direct impact **Indirect** – risk of indirect impact **N/A – no impact pathway** **N/A – other** – include additional text to explain	Further detail on potential impacts. Where N/A is included then provide detail to explain.	**Colour text in green if all impacts can be avoided through measures already included in the scheme. Or red for schemes which require detailed assessment**
GB531106708200 - Dee (N Wales)	**Direct** – risk of direct impact	There is a potential impact pathway for the introduction or spread of INNS. INNS could be spread through hulls of vessels, ballast water and construction equipment.	Scoped in
GB641011650000 - North Wales	**Direct** – risk of direct impact	There is a potential impact pathway for the introduction or spread of INNS. INNS could be spread through hulls of vessels, ballast water and construction equipment.	Scoped in

WFD Protected Areas

If the proposed activity is within, or hydrologically connected to, a WFD Protected Area. If the activity is hydrologically linked, then as a general rule those Protected Areas within 2 km of the proposed activity will be most at risk.

Protected Areas and Critical sensitive habitats/species Consider if WFD protected areas are at risk from your activity. These include:	Applicable	How have you considered the potential impacts?
Protected Areas:		
• SACs/SPAs/RAMSAR	Yes	A Habitats Regulation Assessment has been conducted and adverse effect on the 'Estuaries' features of the Dee Estuary SAC could not be ruled out. This is due to the loss of 3.2ha of features due land reclamation activity. Compensation measures have been proposed and agreed with SNCBs that will offset damage which will occur to the site, further detail can be found in the HRA. It is therefore not considered that the proposal will lead to deterioration of the water body.
• Bathing Waters	Yes	The nearest designated bathing waters to the project area is West Kirby which is located approximately 7km north east of the proposed works. As detailed within Chapter 7 Water Quality of the ES it is not considered that the bathing water site will be influenced by the proposed works.
• Shellfish Waters	Yes	The proposed development is within the Dee (west) Shellfish Water Protection Area, and impact on Shellfish waters have been considered within Chapter 7 Water Quality of the ES, and Appendix 7.1 WFD assessment. In representation from NRW A dated 14 March 2023 NRW A agreed with the conclusion that there was no risk of deterioration to the shellfish waters due to bacterial releases, however considered further information was required in order to consider impact of elevated suspended sediment and resultant deposition on the shellfish beds.

Protected Areas and Critical sensitive habitats/species Consider if WFD protected areas are at risk from your activity. These include:	Applicable	How have you considered the potential impacts?
		Further Information Report (ABPmer August 2023) presented further information surrounding effect on benthic habitat and species including cockles. The report acknowledges that sediment plume from capital dredge of the berth pocket will reach New Bed but total sedimentation is predicted to be less than 0.4mm in this area. Noting that species including cockles are considered tolerant to a certain level of sedimentation with the predicted levels of deposition not predicted to cause smothering. The report concludes that deposition of sediment as a result of dredging outside of the immediate berths, channel and dredge disposal area will be immeasurable and within the range of natural background variability. Within NRW A representation dated 7 November 2024 NRW A confirmed that no impact on designated shellfish waters was predicted.
Other Protected and Priority habitats and species.		
• Nationally or locally protected areas e.g. SSSI, NNR etc	Yes	The project is located within the Dee Estuary SSSI, Gronant Dunes and Talacre Warren SSSI located approximately 5km from the works. Potential effect on waterbird features, supporting habitats and prey resource has been considered within Chapter 8 of the ES Nature Conservation and Marine Ecology, and where features are also part of the European Designated Site these have been considered within the HRA assessment. Additional information was provided within Further Information Report (ABPmer August 2023). Subject to mitigation identified within the HRA related to waterbirds no significant impacts on the SSSI features would be predicted.
Section 6 Biodiversity and resilience of ecosystems duty (Environment (Wales) Act 2016) here - other Protected and Priority habitats and species. The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. Identify if there is a risk that the activity/project could impact on a water dependant priority habitat and or species which are either critical to the ecological health of the water body or sensitive to changes proposed on the water body.		

Protected Areas and Critical sensitive habitats/species Consider if WFD protected areas are at risk from your activity. These include:	Applicable	How have you considered the potential impacts?
• Section 7 list of priority habitats e.g. wetlands	N/A	Additional information was provided by the applicant in order to signpost consideration of section 7 habitats and species within the Further Information Report (ABPmer August 2023). Section 4.2 of the report identifies a number of waterbird and fish features that are listed as section 7 habitats and have been considered within the ES. Overall the assessment concludes that subject to mitigation that has been implemented in relation to protection of the European Protected site which are detailed within the HRA, that we are able to conclude that impacts on section 7 species and habitats will not be significant. A list of mitigation proposed by the applicant in relation to the project has been summarised in chapter 5 of the Further Information Report.
• Section 7 list of priority species e.g. water voles	N/A	
Ecosystem Resilience The Environment (Wales) Act 2016, Section 3 states that the objective of the sustainable management of natural resources is to maintain and enhance the resilience of ecosystems and the benefits they provide now and for future generations		
Consideration of ecosystem resilience – diversity, extent, condition, connectivity.	N/A	The potential impacts of the Project on marine ecosystems have been assessed in the Nature Conservation and Marine Ecology Chapter 8 of the ES. With the implementation of the proposed mitigation measures which have been summarised within chapter 5 of the Further Information Report (ABPmer August 2023), significant impacts on marine ecology receptors will be avoided and/or minimised. In addition, as described in the Proposed Methodology Chapter 3 of the ES, the Project will provide additional marine ecological enhancements to support natural mudflat restoration.

Stage 2, step 2: Scoping decision of the project 'alone'

Scoping assessment	Scoping decisions
Q2.1 Is there a risk that a component of the proposal may cause deterioration of any element that makes up water body status?	There is a risk that a component of the proposal may cause deterioration of any element that makes up waterbody status.
Q2.2 Is there a risk that a component of the proposal may prevent the water body or Protected Area from achieving its objectives in the future?	There is a risk that a component of the proposal may prevent the waterbody from achieving its objectives.

Stage 2, step 3: Assessing potential in combination and/or cumulative impacts

It is important to consider the in combination and/or cumulative effects of pressures in a water body and the combined impacts of the proposed activity.
Do not include activities which have not yet been applied for, unless the activity is well defined and there are solid reasons for believing that it will be taken forward. Consult with technical advisors as required.

Avoidance measures - Describe any conditions, restrictions or other measures, if any, applicable to the activity/project, and/or to the other activities giving rise to the in combination / cumulative effect, which could remove the risk of deterioration or prevent of achieving water body objectives. Include details of how such measures would be applied, and who would be responsible for applying them.
If required, further details can be provided in separate clearly referenced documents.

Are there any activities or projects which may act in combination and/or cumulative? *If none, put* 'N/A'	**Nature of the in-combination/cumulative effect (if any)**	**Avoidance measures** Are there any legally binding avoidance measures which could be included within the project at this point that will ensure the potential effects are avoided?	Can the risk of deterioration or prevention of achieving water body objectives from in combination/ cumulative effects be ruled out? **'YES' *or* 'NO' *or* 'DON'T KNOW'**
DML1542 – Maintenance Dredging at Port of Mostyn and disposal at Mostyn Deep	Project includes the renewal of this application,	This licence CML2283 will supersede all of the licences listed, therefore there will be no in combination effect.	Yes
CML1343 – Licence for land reclamation activity at port of Mostyn, works have not been carried out to date.			
DML2001 - Maintenance Dredging at Port of Mostyn and disposal at Mostyn Breakwater Disposal Site			
Awel y Mor Offshore Windfarm – application under determination.	Chapter 13 of the Environmental Statement considers Cumulative and In-combination Effects in detail. Consideration was given to potential in-combination impacts on physical processes, water and sediment quality, and nature conservation and marine ecology (including fish and benthic habitat and species). In each instance as detailed within the assessment in chapter 13 the in-combination effect is not considered significant. No additional measures are proposed in relation to in-combination effects.		Yes
Holyhead Deep Project (Minesto) Tidal Kite			Yes
Holyhead Port Expansion Project			Yes
Morlais Tidal Energy Project			Yes
Regional Maintenance Activities for the RNLI as detailed in marine licence CML1820			Yes
Scoping decision of the project cumulatively or 'in combination'		**Potential cumulative/in combination impacts conclusion**	
Q2.3 Can the risk of deterioration or prevention of achieving water body objectives from in combination and or	**(a) If the right-hand column is 'YES' in all cases**	It **can** be concluded that potential deterioration or prevention of achieving water body objectives from in combination / cumulative effects can be ruled out	
	(b) If any row is 'NO' or 'Don't know' in the right-hand column	It **cannot** be concluded that potential deterioration or prevention of achieving water body objectives from in combination / cumulative effects can be ruled out	

Are there any activities or projects which may act in combination and/or cumulative? *If none, put* 'N/A'	**Nature of the in-combination/cumulative effect (if any)**	**Avoidance measures** Are there any legally binding avoidance measures which could be included within the project at this point that will ensure the potential effects are avoided?	Can the risk of deterioration or prevention of achieving water body objectives from in combination/ cumulative effects be ruled out? **'YES' *or* 'NO' *or* 'DON'T KNOW'**
cumulative effects be ruled out?			

Stage 2, Step 4: Overall scoping decision

Scoping assessment	**Scoping decisions**
Overall scoping decision **Q2.4 Is there a potential risk that the proposal may cause deterioration or prevent a water body from meeting its objectives either alone or in combination?** *(choose one of the following options and delete the other)*	~~There is **no risk** of deterioration or prevention of the water body achieving its objectives as a result of the proposal, either alone or in combination, and no further consideration under the Water Framework Directive/Regulations is required in order to determine the application.~~ ~~If this section is selected, **delete Q2.5 and Stage 3.**~~ There is a risk the proposal may cause deterioration or prevent the water body from meeting its objectives and therefore a detailed compliance assessment might be required if no mitigation measures that can be included at Q2.5. If this section is selected, complete Q2.5.
Q2.5 Mitigation measures **Are there any legally binding mitigation measures which could be included within the project at this point that will ensure the potential effects are avoided?** Describe any conditions, restrictions or other measures, if any, applicable to the activity/project, which could remove the risk of deterioration or prevent of achieving water body objectives.	~~There is a risk the proposal may cause deterioration or prevent the water body from meeting its objectives however the following **legally binding avoidance measures will be included within the project at this point that will ensure the potential effects are avoided.**~~ ~~List the legally binding avoidance measures that will be included in the consent/permit/authorisation, and who will be responsible for applying them.~~

Scoping assessment	Scoping decisions
Include details of how such measures would be applied, and who would be responsible for applying them. *If required, further details can be provided in separate clearly referenced documents.*	~~If this section is selected, **delete Stage 3.**~~ There is a risk the proposal may cause deterioration or prevent the water body from meeting its objectives and therefore a detailed compliance assessment is required. There are no mitigation measures that can be included at this stage. If this section is selected, **complete Stage 3.**

Stage 3: Detailed Assessment

The amount of information provided at this stage will vary depending on the scale and nature of the project and its potential environmental effects. The detail presented at this stage should be proportionate to the scale of the project and its potential risks. For complex cases then a separate report for detailed assessment would be appropriate. For example, if the only aspect of a project being scoped in to stage 3 is the risk of chemical spills during a construction activity and the mitigation being proposed is a Construction Environmental Management Plan to ensure adequate management of the risks are in place then this may be best presented as a simple table. On the other end of the scale, for a complex project we would expect to see the evidence presented of the underpinning assessments for all aspects of the project that had been scoped in to Stage 3. This information is likely to be drawn from modelling studies and other assessments carried out as part of the wider EIA process where relevant and this should cover the following as a minimum:

Assessing for Deterioration

Deterioration in this context refers to deterioration from one status class to a lower one, unless the element is already at bad status and then this also includes within class deterioration.

Temporary effects to not count as deterioration if the water body/ies in question would recover within a short period of time.

Consider if the effects arising from the project are:

- Direct or indirect/secondary
- Alone or in combination; cumulative
- Ensure all stages of the project have been covered in the assessment where relevant, including construction, operation and maintenance, decommissioning

If stage 3 identifies a risk of deterioration, then avoidance of the impact must be considered. If this is not practicable, mitigation should be then considered to reduce the effects as far as is possible. In this context, mitigation can only apply to the water body/ies which are at risk of deterioration, it does not include compensation in other water bodies.

Protected Areas
This stage should also consider the impact of the activity on each of the protected areas identified at the scoping stage.

If it is identified that there is a potential to impact to a SAC/SPA/RAMSAR site, then an HRA must also be carried out; this should be clearly referenced within this section if so.

Assessment of Invasive and Non-native Species (INNS)
If there is a risk of the project introducing or spreading INNS, then a Biosecurity Risk Assessment must also be carried out in association with the project and clearly referenced within this section.

Jeopardising Good Status
If the water body being assessed is at less than good status, it will have the objective of achieving good status by a set date. If this is the case, it must be assessed whether the project will jeopardise the attainment of good status. This is done by assessing if the project may impact upon any improvement measures being currently carried out in the water body by conflicting with them or reducing their effectiveness. A list of water body improvement measures can be found in the RBMPs.

HMWBs – Jeopardising Mitigation Measures
If the water body in question is designated as a HMWB, then there will be a set of water body mitigation measures associated with it. This stage of the assessment must also consider if the project is in conflict with the water body mitigation measures either now or in future. The list of water body mitigation measures can be found on Water Watch Wales.

Stage 3 decision table.

Water body name & ID	WFD element/s scoped in	Description of impacts; include a list of all evidence documents to inform the detailed assessment	Mitigation measures	Is there risk of the activity preventing the water body/ PA from meeting its	Can the risk of deterioration be ruled out?* 'YES' or 'NO'

				objectives?* 'YES' or 'NO'	
GB531106708200 - Dee (N Wales) GB641011650000 - North Wales	INNS	There is a potential impact pathway for the introduction or spread of INNS. INNS could be spread through hulls of vessels, ballast water and construction equipment.	Biosecurity control measures during construction will also be detailed within a Biosecurity Plan. This will be provided to NRW prior to works commencing and will set out the mitigation measures needed to manage environmental effects. It is noted that the installation of the new quay wall will introduce a new hard surface which could be colonised by INNS, although this does not present a new opportunity for introduction/spread of INNS given the abundance of similar habitat types/surfaces at the Port of Mostyn.	No	Yes
GB531106708200 - Dee (N Wales) GB641011650000 - North Wales	changes to the composition and abundance of benthic invertebrate fauna	There is a potential impact pathway to benthic invertebrate fauna from the proposed project; • Changes to habitats as a result of sedimentation • Changes in subtidal habitat as a result of removal of seabed • Habitat loss	The potential impact of works on benthic habitats has been considered within ES chapter 8 Nature Conservation and Marine Ecology, and is further discussed within Appendix 7.1 Water Framework Directive Assessment of the ES. Additional information has also been presented within Further Information Report (ABPmer August 2023) <u>Changes to habitat and species as a result of sedimentation.</u> Increased sedimentation can occur during the dredging activity and as a result of disposal of dredged material. As detailed within the Appendix 7.1 habitats within estuarine and coastal environments experience highly fluctuating conditions including the resuspension and deposition of sediment on a regular basis therefore many communities have adapted and have a level of tolerance to sedimentation. Sediment changes that are predicted to occur are considered in more detail within Chapter 6 Physical Processes of the ES. In summary, increased sedimentation above 10 mm is predicted within around 500 m, mainly across the proposed reclamation area, with sedimentation reducing to 1-2 mm off the end of the existing breakwater. Outside of these areas, the majority of deposition levels across the study area are less than 1 mm. Once on the bed,	No	Yes
GB531106708200 - Dee (N Wales)	Within 500m of any higher sensitivity habitat (see table below)	There is a potential impact to mussel beds including blue and horse mussel, also saltmarsh is within 500m. Refer to 'changes to the composition and abundance of benthic invertebrate fauna' section above.		No	Yes
GB531106708200 - Dee (N Wales)	1% or more of any lower sensitivity habitat (see table below)	Footprint covers 6% of soft subtidal sediment.		No	Yes

			the deposited material would be expected to return into suspension on subsequent tidal cycles and further dispersed. Future maintenance dredging would result in smaller changes than that of the capital dredge. The Further Information Report (ABPmer August 2023) provides further consideration of the three broad habitats types found in the vicinity of the navigation channel and considers any impact as a result of sedimentation negligible. The assessment also concludes in relation to the disposal site that the wider area surrounding the disposal ground is expected to be in the order of millimetres based on the physical processes assessment. Sedimentation of this scale is unlikely to result in significant smothering effect to most faunal species with recoverability expected to be high. The Further Information Report (ABPmer August 2023) provides further consideration of the three broad habitats types found in the vicinity of the navigation channel and considers any impact as a result of sedimentation negligible. <u>Changes in subtidal habitat as a result of removal of seabed</u> There will also be a direct impact on subtidal habitats as a result of capital dredging within the berth pockets and the navigation channel. Both areas are subject a high level of disturbance, therefore it is considered that following the capital dredge, the berth pocket and navigation channel will provide a similar habitat to existing conditions and it would then be expected to be recolonised rapidly. Therefore, adverse effect is not predicted. Maintenance dredging will cause an ongoing source of seabed disturbance, albeit in the localised areas that require regular dredging. Benthic data suggests that the shallow sandy channel habitats in the Dee Estuary are generally relatively impoverished which is likely to reflect the existing high levels of natural physical disturbance in the area due to strong near bed tidal currents and sediment transport. <u>Habitat loss</u>		

			As detailed within Further Information Report (ABPmer August 2023) the total area of the which will be lost under the footprint of the reclamation is 3.22ha, comprising 2.57ha of intertidal habitat and 0.65ha of subtidal habitat. This is within an area of the existing harbour which until recently has been routinely dredged. The applicant notes within the report that the 2.57ha of intertidal habitat that will be lost comprises recently accreted and ephemeral soft/flid sandy mud, with a low number of species, and is therefore of a lower quality than the habitat that is found outside the harbour area and existing berths. In considering the scale of loss in respect of the size of the estuary, and taking into account the quality of the habitat which is within an operational port, it is considered that the extent of loss would be negligible. Capital dredging will cause a direct loss of 1.34ha of intertidal habitat which will change to subtidal habitats as a result of the deepening of the berth pockets. As detailed within Further Information Report (ABPmer August 2023) the intertidal habitat in the area comprises highly impoverished faunal assemblage typical of highly disturbed and tide swept sandflat habitats. The area is also characterised by ongoing maintenance dredge operations. This loss is therefore considered negligible. In conclusion it is not considered that the proposal will lead to a deterioration in these elements of the Dee N.Wales or North Wales waterbodies.		
GB531106708200 - Dee (N Wales)	changes to the composition, abundance and age structure of fish fauna	Potential impact on fish features due to; • Direct loss or change of habitat • Changes in water and sediment quality • And underwater noise and vibration during construction	The potential impact of works on fish has been considered within ES chapter 8 Nature Conservation and Marine Ecology, and is further discussed within Appendix 7.1 Water Framework Directive Assessment of the ES. Consideration was given within Chapter 8 of the ES to the impact to fish due to the direct habitat loss within the footprint of the development and through smoothing of habitat during dredge and disposal activity. <u>Direct loss or change of habitat</u>	No	Yes
GB531106708200 - Dee (N Wales)	an impact on normal fish behaviour			No	Yes

	like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)		As discussed in Chapter 8 of the ES, the sedimentary habitat likely to be lost or changed as result of the proposal is considered generally impoverished with low abundance of prey species. In addition most fish are opportunistic and generalist feeders so not reliant on a single prey. As they are mobile species they will be able to move away from the zone of influence and utilise other foraging areas. In addition the loss and change of habitat is considered to represent only a small proportion of the foraging range for many fish species. A number of species including Salmon are known to migrate through estuaries with high suspended solid concentrations therefore are tolerant to turbid conditions.		
GB531106708200 - Dee (N Wales)	Or: is the proposal in an estuary and could affect fish in the estuary; is outside the estuary but could delay or prevent fish entering it; or, could affect fish migrating through the estuary		Within Further Information Report (ABPmer, March 2024) further consideration was given to impact of the proposed works on sandeels. As detailed in Table 6 of the report any area potentially affected constituted a negligible proportion of the total amount of sandeel habitat in the Dee Estuary. <u>Change in water and sediment quality</u> Increased suspended sediment can lead to physiological effect in fish. The change is SSC as a result of the project is considered within chapter 6 Physical Processes of the ES, and discussed further within Chapter 8 of the ES in relation to Fish. Sediment plumes resulting from the dredging and disposal are considered to be relatively localised and area expected disperse in a short duration (less than a tidal cycle). In addition a number of species including Salmon are known to migrate through estuaries with high suspended solid concentrations therefore are tolerant to turbid conditions. The impact on smothering of sandeel and sandeel eggs during disposal activities have been assessed within Further Information Report (ABPmer, August 2023) and (ABPmer March 2024). It is acknowledged that deposition of dredge material in the immediate vicinity of the disposal site has the potential to cause some short term and temporary smothering of sandeel eggs at the time of the disposal activity, however it is considered that the disposal site is unlikely to represent important habitat for the species,	No	Yes

			and as detailed within Table 6 of the Further Information Report (ABPmer March 2024) the dredge disposal site only represents a small proportion of sandeel habitat in the Dee Estuary (<3%). Underwater noise and vibration during construction; Elevated under water noise and vibration during construction activity can potentially disturb fish by causing physiological damage and/or induce behaviour responses. An underwater noise assessment has been carried out and presented within Appendix 8.4 of the ES and noise impacts are further discussed in relation to the WFD waterbodies in Appendix 7.1 of the ES (WFD assessment). The assessment concludes that the proposed development is not expected to lead to significant effect on fish species due to underwater noise impact, however the proposal has also sought to include mitigation as is detailed within the Further Information Report (ABPmer August 2023), this includes Soft start procedures that will give fish features an opportunity to move away from the area before the onset of full impact. Vibro piling – vibro piling will be used where possible, however percussive piling is likely to be required. In addition as detailed within the Further Information Report (ABPmer August 2023) additional mitigation has been proposed to minimise adverse effect on fish species these include; • no percussive piling is to be undertaken 3 hours either side of high water [mid-April to mid-June] in any given year. Percussive piling operations that have already been initiated will, however, be completed where an immediate cessation of the activity would form an unsafe working practice. • No percussive piling is to take place between 7pm and 7am on any given day. Percussive piling operations that have already been initiated will, however, be completed where an immediate cessation of the activity would form an unsafe working practice.		

			NRW A raised concerns in representation date 3 March 2023, that the condition as proposed by the applicant would not be effective as they would allow in some circumstances work to take place within the restricted period. NRW A advise that percussive piling activities should be suitably planned and timed so as to not need to contravene these timing restriction conditions. In letter dated 17 June the applicant also agreed to extend the seasonal tidal restriction to February, March, September October and November to minimise impact on key fish species includes those of the SAC. Further discussion has continued between NRW A (response to clarification report dated 21 May 2024) and the applicant in letter dated 17 June 2024 surrounding appropriate timing to ensure that night-time piling is avoided/minimised. NRW PS consider that appropriate mitigation can be agreed as part of a Plan approved post consent that will ensure that percussive piling is suitably planned and timed to avoid the need to work past the timing restriction unless for exceptional health and safety purposes. NRW PS consider that mitigation can be secured within the marine licence to ensure seasonal tidal restrictions to avoid and/or minimise impact on key fish species, and also night-time piling restrictions to minimise impact on fish species that migrate exclusively or preferentially at night (including river lamprey). In considering the above and subject to the mitigation proposed no deterioration to the fish element of the waterbody is predicted.		
GB531106708200 - Dee (N Wales)	HMWB	Consideration of mitigation measures for the Dee (N.Wales) transitional waterbody have been provided within Table 5 of the Further Information Report and is extracted below;		No	Yes

Table 5. Consideration of mitigation measures for the Dee (N. Wales) transitional water body

Mitigation Measure		Is the Measure in Place?	Would the Measure be Compromised by the Proposed Development?
Measure Tier 1	Measure Tier 2		
Navigation	49. Modify vessel design	In place	No. There would be no change to the existing situation and this measure can continue.
Navigation	50. Vessel Management	In place	No. There would be no change to the existing situation and this measure can continue.
Operations and maintenance	21. Avoid the need to dredge	In place	No. Dredge requirement has been reduced as far as possible whilst still meeting the need for the proposed development (see Appendix 6.1 – Waste Hierarchy Assessment). The impacts of dredging have been assessed in the ES and no significant effects are anticipated.
Operations and maintenance	22. Dredging disposal strategy	In place	No. The proposed disposal of material is in line with existing practices, using existing licenced disposal sites within the estuary. Disposal options have been considered in the context of the Waste Hierarchy Assessment (Appendix 6.1). The impacts of dredge disposal have been assessed in the ES and no significant effects are anticipated.

Mitigation Measure		Is the Measure in Place?	Would the Measure be Compromised by the Proposed Development?
Measure Tier 1	Measure Tier 2		
Operations and maintenance	23. Reduce impact of dredging	In place	No. The impacts of dredging have been assessed in the ES and mitigation measures applied where necessary. No significant effects are anticipated.
Operations and maintenance	24. Reduce sediment resuspension	In place	No. The impacts of dredging have been assessed in the ES and mitigation measures applied where necessary. No significant effects are anticipated.
Operations and maintenance	25. Retime dredging or disposal	In place	No. The impacts of dredging have been assessed in the ES and mitigation measures applied where necessary. No significant effects are anticipated.
Operations and maintenance	26. Sediment management	In place	No. The proposed development would not prevent this measure from being implemented in the future.
Operations and maintenance	27. Dredge disposal site selection	In place	No. the selected disposal sites are considered most appropriate based on practical, environmental and economic parameters (see Appendix 6.1 – Waste Hierarchy Assessment).
Operations and maintenance	28. Manage disturbance	In place	No. The impacts of the proposed development have been assessed in the ES and mitigation measures applied where necessary. No significant effects are anticipated.
Structural modification	14. Modify structure	In place	No. The impacts of the proposed development have been assessed in the ES and mitigation measures applied where necessary. No significant effects are anticipated.
Structural modification	15. Flow manipulation	In place	No. The impacts of the proposed development have been assessed in the ES and mitigation measures applied where necessary. No significant effects are anticipated.

<table>
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<tr><th colspan="2">Mitigation Measure</th><th rowspan="2">Is the Measure in Place?</th><th rowspan="2">Would the Measure be Compromised by the Proposed Development?</th></tr>
<tr><th>Measure Tier 1</th><th>Measure Tier 2</th></tr>
<tr><td>Working with physical form and function</td><td>1. Modify channel</td><td>In place</td><td>No. The impacts of the proposed development have been assessed in the ES and mitigation measures applied where necessary. No significant effects are anticipated.</td></tr>
<tr><td>Working with physical form and function</td><td>2. Remove obsolete structure</td><td>In place</td><td>No. The proposed development would not prevent this measure from being implemented in the future.</td></tr>
</table>

Although Dredging and disposal would increase during the construction period, as assessed within the Environmental Statement subject to mitigation summarised within chapter 5 of the Further Information Report (ABPmer, August 2023) significant effects are not predicted. The increase in dredging and disposal over the construction period would be considered short term, with ongoing operational maintenance proposed returning to the volumes allowed under previous licence conditions. Therefore it is not considered that the proposed development would compromise the ability to implement mitigation measures.
</td><td></td><td></td></tr>
<tr><td>GB641011650000 - North Wales</td><td>HMWB</td><td>Based on details provided from Water Watch Wales no listed mitigation measure are considered applicable/ required in this Water Body.</td><td>N/A</td><td>No</td><td>Yes</td></tr>
</table>

* Where there is uncertainty if the proposed activity may prevent a water body or PA from meeting its objectives or may cause deterioration then we must follow a precautionary approach, contact the Integrated Water Planning team for further advice.

Conclusion of WFD Compliance Assessment & Authorisation

In light of the conclusions of a detailed compliance assessment (Stage 3) and taking account of the advice received from technical specialist advisors, it has been established that the activity/project has no potential to cause deterioration of any water body or prevent a water body or WFD Protected Area from meeting its objectives, taking into account any conditions or restrictions as applicable, either alone or in-combination with other activities.

Completed by	Peter Morrison
Job title	Lead Specialist Officer (Marine Licensing)
Date	21 November 2024

Consultation with technical advisors/specialists

Relevant section of the WFD compliance assessment	Date(s) of correspondence* and any meeting(s) with technical advisor(s) and include the name of the technical advisor	Description of how the comments from technical advisors have been considered
SAC/SPA and Ramsar	7 November 2023	Following further evidence submitted by the applicant and representation from NRW A, NRW PS agree with the conclusion of NRW A that the loss of 3.2ha is opposed to the conservation objective for the estuary feature of the Dee Estuary SAC, and is not considered insignificant therefore adverse effect cannot be ruled out A Habitats Regulation Assessment has been conducted and adverse effect on the 'Estuaries' features of the Dee Estuary SAC could not be ruled out. This is due to the loss of 3.2ha of features due land reclamation activity. Compensation measures have been proposed and agreed with SNCBs that will offset damage which will occur to the site, further detail can be found in the HRA. It is therefore not considered that the proposal will lead to deterioration of the water body. The conclusion of the HRA have been updated within the WFD.
Fish	7 November 2023	NRW A in representation dated 7 July 2023 considered that the seasonal timing restriction could be widened to protect a wider range of fish species. Within Further Clarification Report (ABPmer, March 2024) further review of impact of underwater noise on fish species was carried out, and considered that the piling restrictions between mid April to Mid June could be extended to cover the

		higher potential risk of exposure to European smelt during the months of February and March and to herring in September to November. NRW A welcomed this proposal. In letter dated 17 June 2024 the applicant agreed to extend the seasonal tidal restriction to February, March, September October and November to minimise impact on key fish species. NRW A raised concerns in representation date 3 March 2023, that the condition as proposed by the applicant would not be effective as they would allow in some circumstances work to take place within the restricted period. NRW A advise that percussive piling activities should be suitably planned and timed so as to not need to contravene these timing restriction conditions. In letter dated 17 June the applicant also agreed to extend the seasonal tidal restriction to February, March, September October and November to minimise impact on key fish species includes those of the SAC. Further discussion has continued between NRW A (response to clarification report dated 21 May 2024) and the applicant in letter dated 17 June 2024 surrounding appropriate timing to ensure that night-time piling is avoided/minimised. NRW PS consider that appropriate mitigation can be agreed as part of a Plan approved post consent that will ensure that percussive piling is suitably planned and timed to avoid the need to work past the timing restriction unless for exceptional health and safety purposes. NRW PS consider that mitigation can be secured within the marine licence to ensure seasonal tidal restrictions to avoid and/or minimise impact on key fish species, and also night-time piling restrictions to minimise impact on fish species that migrate exclusively or preferentially at night (including river lamprey).

*Attach a copy of any written correspondence with the WFD assessment for the audit trail

Where there is a dispute on the conclusion the decision should be taken by the Leadership Team member of the team exercising the competent authority role

Extract from NRW Advisory Response dated 7 November 2024

WFD comments –

Key issues

We cannot agree with the conclusions of the WFD assessment due to issues with fish assessments and Habitats Regulations Assessment; please see comments from the Fish and Fisheries and Benthic Ecology advisors.

Detailed comments

Chemicals on the EQSD list

We generally recommend this is considered 'applicable', with potential impact of the risk of spills included. However, avoidance measures can include a Construction Environment Management Plan (CEMP), and any pollution prevention measures included as part of the licence. This does not need to be scoped in for detailed assessment, but avoidance measures should be included.

Fish

Please refer to the comments of the Fish and Fisheries advisor regarding WFD fish elements.

SACs/SPAs/RAMSAR

We do not agree with the conclusion of no adverse impact on site integrity. Please see comments from the Benthic Ecology advisor in relation to the Habitats Regulations Assessment.

Shellfish waters

We agree there will not be an impact on designated shellfish waters.

Section 7 list of priority species

For mitigation for priority species the reader is directed to chapter 5 of the further information report. In the report I have, this is the 'references' section. We recommend the appropriate reference (and potential a link to it) are included for ease of reading. We also recommend any mitigation measures relating to construction are included in the CEMP.

In-combination impacts

We agree the incombination and cumulative impacts have been considered and agree the conclusions.

Potential to impact higher sensitivity habitat

We agree the conclusions with respect to blue and horse mussel and saltmarsh within 500 m of the activity.

Loss of benthic habitat
Loss of benthic habitat (the 1 % low sensitivity habitat metric and composition and abundance of flora) has been taken through to detailed assessment as per guidance. We agree the conclusion that there will be no deterioration of benthic habitats (i.e. Infaunal Quality Index element). We agree this conclusion based on the fact the current areas are already dredged and that the area is small compared to the size of the water body.

Mitigation measures assessment
Mitigation measures have been taken through to detailed assessment as per guidance. We agree the activity mitigation measures does not compromise the mitigation measures in the Dee (N. Wales) water body. The physical processes specialist has not identified an issue with the development providing current licence conditions are moved to the new licence and this applies here also; this covers the dredging and modify channel mitigation measures. Furthermore, regarding the land reclamation and quay development, the physical processes specialist has not raised concerns around wave reflection or currents and, as such, we can consider the development to be in keeping with the ‘modify structure’ mitigation measure. We agree that mitigation measures for the North Wales water body are not applicable to this development.