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Environmental Impact Assessment Written Confirmation of the EIA Consent Decision

**Marine Works (Environmental Impact Assessment) Regulations
2007 (as amended) (“the Regulations”)**

**East Rhyl Coastal Defence Scheme
CML1873**

5 July 2019

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1. Introduction

- 1.1 This document is the Environmental Impact Assessment ('EIA') Written Confirmation document for works proposed by Denbighshire County Council in marine licence application CML1873 to carry out enhancement works of the existing coastal defence at East Rhyl ("the Project").

2. The Project

2.1 Project Background

- 2.1.1 An application for a Marine Licence for the Project was submitted to NRW by Denbighshire County Council dated 18 December 2018.
- 2.1.2 The Project comprises;
- Rock Revetment
 - The dismantling of existing rock armour revetment, the dismantled rock revetment will be reused within the new revetment. *
 - The deposit of new rock armour protection approximately 600m in length and approximately 30m in depth from the existing sea wall. The rock armour will be 8.2m AOD at the highest point. *
 - The existing concrete stepped sea defence will be retained and a rock filter later will be provided as a foundation below the primary rock armour. *
 - Seawall
 - Approximately 550m of the existing recurved sea wall will be demolished and replaced with a recurved upstand sea wall. The new sea wall will be constructed to 7.7m AOD. This will be constructed of precast concrete units. Tie in works will be undertaken to the adjacent sea defences. Demolition material will be reused as infill below the rock armour where possible. *
 - Raised walkway along the promenade
 - The walkway along the promenade will be raised
 - Access Points
 - New beach access points with steps leading through from the walkway through the rock armour to the beach*
 - Demolition and Installation of flood gates
- 2.1.3 All activities listed in 2.1.2 with a * require a Marine Licence under Part 4, (Chapter 1) Section 66 of the Marine and Coastal Access Act.

2.2 Location

- 2.2.1 The Project is located at the existing coastal defence in the east of Rhyl, Denbighshire, North Wales.

The development boundary and construction site extent are shown in drawing reference ER-JBA-00-00-DR-C-0001-S8-P07-Site_Boundary which is included within Appendix B of the Environmental Statement.

2.3 Statement of need

2.3.1 The objectives of the Project are: The existing coastal defence in the east of Rhyl was constructed in the 1950s and no longer meets the acceptable performance standards for a coastal defence. It has overtopped in recent years causing significant damage and disruption to residential properties and business. The proposed project has been designed to enhance the existing defence and to protect up to 472 properties from flooding caused by overtopping during severe weather conditions.

2.4. Regulating regimes

2.4.1 The Project overlaps between two consenting regimes.

2.4.2 A marine licence under the Marine and Coastal Access Act 2009, administered by Natural Resources Wales acting on behalf of the Licensing Authority, Welsh Ministers. Aspects applied for via a Marine Licence are identified by * in section 2.1.2.

2.4.3 Planning permission under the Town and Country Planning Act 1990 for additional aspects of the project. This was granted on 25 April 2019 reference 45/2018/1197

3. Environmental Impact Assessment

3.0.1 Council Directive 2011/92/EU (as amended) on the assessment of the effects of certain public and private projects on the environment (“the EIA Directive”) aims to protect the environment and the quality of life by ensuring that projects which are likely to have significant environmental effects by virtue of their nature, size or location are subject to an EIA before permission is granted.

3.0.2 The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (“the Regulations”) transpose the EIA Directive in Wales and England for marine licence applications.

3.0.3 Pursuant of Regulation 8 of the Regulations, Natural Resources Wales (NRW) considered under its Scoping report SC1801 that the proposed works fell under Schedule A2, para 69 of the Regulations on the assessment of the effects of the project on the environment, specifically:

69. *Coastal work to combat erosion and maritime works capable of altering the coast through the construction of, for example, dykes, moles, jetties and other sea defence works, excluding the maintenance and reconstruction of such works.*

3.0.4 Accordingly, the Marine Licence application required for the Project was accompanied by an Environmental Statement (ES).

- 3.0.5 NRW provided comments on a Scoping Report entitled “*East Rhyl Coastal Defence Scheme Environmental Impact Assessment Screening & Scoping Report*” dated January 2018, submitted by JBA Consulting on behalf of Denbighshire County Council on 24 January 2018 (case reference: SC1801).

3.1 The Environmental Statement (ES)

- 3.1.1 The Environmental Statement outlined the proposed project organised under the following topic headings:

Technical chapters:

- Introduction
- The Proposed Development
- Environmental Impact Assessment Methodology
- Coastal Hydrology and Hydromorphology
- Biodiversity and Nature Conservation
- Landscape and Visual Impact
- Cultural Heritage
- Population, Human Health & Socio-economics
- Traffic and Transport
- Other Construction Effects
- Sustainability and Climate Change
- Cumulative Effects
- Summary

- 3.1.2 The ES is considered to satisfy the requirements of Regulation 12 (2) and Schedule 3 of the Regulations. Specific comments pertinent to each ES chapter can be found in section 7.

3.2 Other Legislative and Policy Framework

Relative considerations under other legislation and / or policy are set out below:

3.2.1 Marine and Coastal Access Act 2009, Section 66, Part 4 (Chapter 1) (‘the Act’)

- 3.2.1.1 Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (“the EIA Directive”) aims to protect the environment and the quality of life by ensuring that projects which are likely to have significant environmental effects by virtue of their nature, size or location are subject to an EIA before permission is granted. The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (“the Regulations”) transpose the EIA Directive into UK law for marine licence applications.

3.2.2 Water Framework Directive (Council Directive 2000/60/EC) (WFD)

- 3.2.2.1 The sea from the mean low water mark up to 1 nautical mile from shore is protected under the WFD which requires that a project or activity does not cause

or contribute to deterioration in status of European Union (EU) water bodies or 'prevent the water body achieving 'good status'.

3.2.2.2 The Potential effect of the Project was also screened against the Water Framework Directive objectives for the following Water Bodies:

- North Wales Coastal Waterbody (GB641011650000)

3.2.2.3 A Water Framework Directive Compliance Assessment was concluded that the proposal, when considered alone and in-combination, will not pose a risk to deterioration of the above listed waterbodies.

3.2.2.4 Further details are described within the Water Framework Directive Compliance assessment.

3.2.3 Waste Framework Directive (Council Directive 2008/98/EC)

3.2.3.1 *'Establishes a legal framework for treating waste in the EU. This is designed to protect the environment and human health by emphasising the importance of proper waste management, recovery and recycling techniques to reduce pressure on resources and improve their use.'* Waste generated by a project or activity must be dealt with in an environmentally friendly way. To do this it applies the waste hierarchy from the Waste Framework Directive Compliance (WaFD), which gives an order of preference for how waste is dealt with (prevention, re-use, recycling, recovery, disposal at sea).

3.2.3.2 See consideration under section 7

3.2.4 The Conservation of Habitats and Species Regulations 2017 (as amended)

3.2.4.1 European sites are those designated under The Conservation of Habitats and Species Regulations 2017 (as amended) ("Habitats Regulations") as Special Protection Areas ("SPAs"), Special Areas of Conservation ("SACs") or Sites of Community Importance ("SCIs").

3.2.4.2 The proposal is not located within a European Protected Site.

3.2.4.3 The effects of proposal on the following European Sites, their features and conservation objectives have been considered by NRW during the licence determination:

- Dee Estuary SPA
- Dee Estuary SAC
- Dee Estuary Ramsar
- Liverpool Bay SPA
- Liverpool Bay pSPA

3.2.4.4 In light of the conclusions of an appropriate assessment, and taking account conditions or restrictions as applicable, either alone or in-combination with other

plans and projects, it has been established that the project will not adversely affect the integrity of any of the European Sites above.

3.2.4.5 Further details are described within the Habitats Regulations Assessment.

3.2.5 Marine Conservation Zones

3.2.5.1 Section 116 of the Act provides powers to Welsh Ministers to designate Marine Conservation Zones (“MCZs”) with the aim of contributing to the achievement of a network of ecologically coherent and well-managed marine protected areas.

3.2.5.2 The Project is not within a Marine Conservation Zone and was not identified to have an impact on any Marine Conservation Zone.

3.2.6 Wildlife and Countryside Act 1981 (as amended)

3.2.6.1 Sites of special scientific interest (“SSSIs”) are protected by law to conserve their wildlife or geology. The Wildlife and Countryside Act 1981 (as amended) ensures that SSSIs are protected and managed effectively.

3.2.6.2 See consideration under section 7

3.2.7 Marine Policy Statement and Marine Plans

3.2.7.1 The UK Marine Policy Statement (“MPS”) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. NRW must make licensing decisions in accordance with the MPS and marine plans (where in place), unless relevant considerations indicate otherwise. In Wales, the Welsh National Marine Plan is yet to be adopted.

3.2.8 Environment (Wales) Act 2016

3.2.8.1 Article 4 of the Natural Resources Body for Wales (Establishment) Order 2012, as amended by the Environment (Wales) Act 2016 requires NRW to pursue the sustainable management of natural resources in relation to Wales and apply the principles of sustainable management of natural resources in the exercise of its functions, so far as consistent with their proper exercise.

3.2.8.2 NRW considers that the procedures outlined in this Written Confirmation in the consideration of EIA consent are consistent with this requirement.

3.2.9 Well-being of Future Generations (Wales) Act 2015

3.2.9.1 This Act requires NRW, as a public body, to take reasonable steps in exercising its functions to work in accordance with the sustainable development principle, as set out in Section 5 of the Act.

3.2.9.2 NRW considers that that the EIA process is consistent with the sustainable development principle described in the Act, and that the processes outlined in this Written Statement are sufficient to properly demonstrate the sustainable

development principle. In particular, NRW acknowledges that the principles of sustainable management include taking account of all relevant evidence and gathering evidence in respect of uncertainties, and taking account of the short, medium and long-term consequences of actions. NRW further acknowledges that it is an objective of sustainable management to maintain and enhance the resilience of ecosystems and the benefits they provide and, in so doing meet the needs of present generations of people without compromising the ability of future generations to meet their needs, and contribute to the achievement of the well-being goals in section 4 of the Well-being of Future Generations (Wales) Act 2015.

3.3 Further information provided by the applicant pursuant to a notification under regulation 14(1)

3.3.1 No further information was requested from the applicant pursuant to a notification under Regulation 14 (1).

4. Consultation with the public

4.1 Public Notices

4.1.1 Pursuant to Regulation 16, public notices were advertised to notify interested parties of the proposed works and give any interested parties or members of the public an opportunity to make representation on the application as necessary.

4.1.2 The application documents were made available as follows;

- A translated public notice was placed in the Rhyl Journal on 10 April 2019 & 17 April 2019
- The application documents were made available to the public at: Denbighshire County Council offices, Caledfryn, Smithfield Road, Denbigh, LL16 3RJ, for 42 days following the publication of the first public notice. The application documents were also available on NRW websites during this time.

4.1.3 No public representations were received

5. Consultation of EEA States

5.0.1 A Transboundary Screening Assessment did not identify potential for effects to any other EEA State.

5.0.2 Consequently, no material was provided to other EEA member States in relation to the application.

6. Technical consultation

6.0.1 The Marine Licence application was consulted upon on 3 April 2019 for a period of 42 days, in accordance with Regulation 17 of the regulations. It was sent to the following consultation bodies:

- 6.0.2 Natural Resources Wales Technical Experts (NRW TE), Ministry of Defence (MoD), Maritime and Coastguard Agency (MCA), The Crown Estate (TCE), Local Planning Authorities (LPA) for Denbighshire County Council, Local Harbour Authorities, Local Biodiversity Officers (LBO) for Denbighshire County Council, Royal Yachting Association (RYA), Royal Society for the Protection of Birds (RSPB), Trinity House (TH), Cadw, Welsh Archaeological Trust (WAT), Welsh Government Fisheries Branch, Marine Enforcement Officers (MEO) Natural England (NE), The Environment Agency (EA) and Welsh Government Marine Branch.
- 6.0.3 The following organisations submitted comments: The Crown Estate (TCE), Trinity House (TH), Royal Yachting Association (RYA), Local Planning Authorities (LPA) for Denbighshire County Council, Welsh Archaeological Trust (WAT), Natural England (NE), Natural Resources Wales Technical Experts (NRW TE), Maritime and Coastguard Agency (MCA).
- 6.0.4 Details of the issues raised by the Consultation Bodies and how they have been addressed is set out in section 7.
- 6.0.5 Consultees who did not provide a response were assumed to have no comment.

7. Issues arising during the consideration of the Environmental Statement, Marine Licence Application and representations received

7.0.1 Material issues that were highlighted by the ES and consultation process and the extent to which they have been addressed are detailed in this section.

7.1 Coastal Hydrology and Hydromorphology

7.1.1 NRW TE considered that the ES did not contain enough information regarding impact of the works on sediment movement eastward, which would feed into the dune and salt marsh which are features of the Dee Estuary SAC and Ramsar site. NRW TE considered the ES did not contain enough information to consider the impact of increased turbidity through sediment mobilisation on foraging ability of little terns. The applicant provided clarification on the 4th of March and 26th of March to NRW TE, which was subsequently submitted to NRW PS. This provided clarification regarding the coastal processes assessment and the relevant appendices of the ES were referenced, including the coastal processes assessment and modelling report Appendix H. In addition, clarity regarding calculations of volume of materials to be excavated were provided. NRW TE were satisfied with the response and consider that the proposal, subject to appropriate mitigation, would not have an adverse effect on a designated site.

7.1.2 No further representations were made on the subject of coastal hydrology and hydromorphology. Therefore, NRW PS concluded that the potential impacts due to the project has been adequately addressed in the ES.

7.2 Biodiversity and Nature Conservation

- 7.2.1 NRW TE provided comment on the impact of sediment movement and turbidity on designated sites, this was discussed in section 7.1
- 7.2.2 Section 5.5 of the ES details pollution prevention measures that will be adhered to in order to mitigate for potential impact upon ecological features. Although a draft version of the Construction Environment Management Plan (CEMP) which include pollution prevention best practice was submitted within the appendix of the ES, NRW TE consider that the final CEMP should be submitted for approval prior to commencement of works. NRW PS consider it appropriate to include a condition in any marine licence issued to ensure that a CEMP is submitted and approved prior to commencement of works.
- 7.2.3 The ES highlighted that presence of section 7 habitat *Sabellaria alveolate* in the vicinity of the works. NRW TE advised that measures identified to reduce the mobilisation of sediment and mud in the CEMP for the purposes of reducing impacts to bathing waters, will also serve to minimise any impact to the reef identified. As stated in 7.2.2 NRW PS consider it appropriate to include a condition in any marine licence issued to ensure that a CEMP is submitted and approved prior to commencement of works.

7.3 Landscape and Visual Impact

- 7.3.1. No representations were made about Landscape and Visual Impacts. Therefore, NRW PS concluded that the potential impacts due to the project has been adequately addressed in the ES.

7.4 Cultural Heritage

- 7.4.1 Welsh Archaeological Trust (WAT) confirmed that sufficient archaeological assessment was carried out and adequate mitigation proposed within the ES. WAT are satisfied that conditions relating to this mitigation, namely the requirement to submit a programme of archaeological mitigation detailed within a Written Scheme of Investigation (WSI) for approval, have been contained within Planning Permission for the same scheme. NRW PS are therefore satisfied that cultural heritage has been appropriately assessed and that mitigation required has been secured within the developments Planning Permission 45/2018/1197 condition 7 granted by Denbighshire County Council on the 25 April 2019.

7.5 Population, Human Health & Socio-economics

- 7.5.1 No representations were made on the subject of Population, Human Health and Socio-economics. Therefore, NRW PS concluded that the potential impacts due to the project have been adequately addressed in the ES.

7.6 Traffic and Transport

- 7.6.1 No representations were made on the subject of Traffic and Transport. Therefore, NRW PS concluded that the potential impacts due to the project have been adequately addressed in the ES.

7.7 Other Construction Effects

- 7.7.1 NRW TE raised concerns that works have the potential to impact bathing waters, specifically as excavations and vehicle movements may disturb sediment and muds beneath the sand. Sediment and mud can contain elevated levels of bacteria, and these may become mobilised by the incoming tide. NRW TE consider that additional mitigation may be required to ensure that bathing waters remain free from contamination during the proposed works and advise that potential for sediment and mud to become mobilised in the seawater and likelihood of bacteria levels to become raised in the bathing water during construction should be assessed and any specific mitigation measure to be included within the CEMP.
- 7.7.2 NRW PS consider it appropriate to include a condition in any marine licence issued to ensure that a CEMP is submitted and approved prior to commencement of works. This plan will need to demonstrate that it has considered potential impact on bathing water and specific mitigation measure included where required.
- 7.7.3 NRW TE advise that licence conditions should include pollution prevention best practice. NRW PS consider that pollution prevention measure detailed within section 10.5.11 of the ES are suitable. NRW PS consider it appropriate to include conditions in any Marine Licence issued to ensure adequate pollution prevention measures are followed.

7.8 Sustainability and Climate Change

- 7.8.1 No representations were made on the subject of sustainability and climate change. Therefore, NRW PS concluded that the potential impacts due to the project have been adequately addressed in the ES.

7.9 Cumulative Effects

- 7.9.1 As detailed in section 3.2.4 NRW PS carried out a Habitat Regulation Assessment, as part of which an in-combination assessment was carried out and concluded subject to appropriate mitigation that the works would not cause a significant impact alone or in combination on a European designated site.
- 7.9.2 No representations were made on the Cumulative Effects. Therefore, the NRW PS concluded that the potential impacts due to the project have been adequately addressed in the ES.

7.10 Other Comments

- 7.10.1 The works fall within sub-cell 11a, policy unit 4.1 of the North West England and North Wales Shoreline Management Plan 2. The policy is to hold the line over the next 3 epochs. The policy states that maintaining and improving/raising the existing defence is required. NRW PS consider that the proposal is in line with the Shoreline Management Plan.
- 7.10.2 NRW TE provided comment on the Flood Consequences Assessment (FCA). NRW TE noted that wave transformation and wave inundation modelling has been

undertaken by JBA to Inform the design of the scheme. NRW TE did not undertake a detailed review of the modelling methodology or its outputs, however commented that the modelling of the proposed scheme's impact demonstrates that flood risk betterment would be provided over the existing situation, when considering both UKCP09 and FCDPAG3 climate change guidance. The application documents note that the defences will provide an acceptable Standard of Protection (SoP) (providing a SoP in excess of the 1 in 200 AEP event) for the next 60 years based on the UKCP09 projections but acknowledges further defence improvement work would be required beyond this. The SoP provided is lower when considering the FCDPAG3 climate change projections.

Based on this, NRW TE recommended that Denbighshire County Council, as promoter of the scheme, considers how the latest Welsh Government Climate Change Guidance for Flood & Coastal Risk Management Authorities in Wales may impact on the scheme's design and the standard of protection afforded by the scheme. NRW TE do however recognise the transitional arrangements embodied within the guidance.

7.10.3 NRW TE were satisfied that the FCA demonstrates that the Standard of Protection (SoP) provided by the existing defences will be maintained throughout the construction phase. During construction of the new revetment, the existing sea wall will remain in place, maintaining the existing SoP for wave overtopping. Once the revetment has been constructed, the existing sea wall will be taken down; the FCA shows that the proposed revetment will provide betterment in terms of the SoP compared to the existing sea wall for protection against wave overtopping. The FCA also states that the promenade level will fall no lower than 6.35 m AOD throughout the construction phase and will therefore be raised above the 1 in 10,000 AEP event still water level for the duration of construction.

7.10.4 NRW TE were satisfied that the FCA and ES demonstrated that the scheme would provide flood risk betterment in the future, would not adversely impact flood risk elsewhere and would not compromise the existing SoP provided during the construction phase. NRW PS therefore consider that the potential impact on flood risk has been adequately addressed.

7.10.5 No direct comment was provided by the Maritime and Coastguard Agency (MCA) regarding the Environmental Statement itself. However, the (MCA) commented that they had no objection to the works, provided licence conditions were included to ensure mariners and fishermen's organisations were aware of the activity and the HM Coastguard and UKHO were notified prior to commencement of works, and that suitable pollution prevention measures are adhered to. NRW PS considers that this can be sufficiently addressed using appropriate conditions in any Marine Licence issued.

8. Mitigation or monitoring measures to be taken

8.1 Features or measures to avoid, prevent, reduce or offset likely significant effects

8.1.1 In reaching the Conclusion about Environmental Impact (Regulation 21A of the Regulations), NRW must give consideration to any features of the project, or

proposed measures, to avoid, prevent, reduce or offset any likely significant adverse environmental effects (regulation 21A (1)(f)).

- 8.1.2 NRW considers that the following features of the project, or measures included within the project proposal, as described in the application form, Environmental Statement and other supporting information, would avoid, prevent, reduce or offset any likely significant adverse environmental effects.
 - 8.1.2.1 All works will take place during dry working conditions, ceasing 3 hours prior to the anticipated high tide. In addition, the rock revetment will be constructed in sections that can be completed during a single tidal period. This will reduce the potential of increased sedimentation during excavation operations.
 - 8.1.2.2 Beach levels around the rock storage area will be visually monitored as well as access route used by vehicles on the foreshore. Should any areas of increased erosion become evident during construction of following removal of the rock storage area it will be reinstated using excavated material. This will reduce impact on hydrology through maintaining the natural profile of the beach.
 - 8.1.2.3 The works will follow pollution prevention measures and best practice, including having emergency spill kits on site. In addition, a CEMP will be implemented to control the use and storage of potentially contaminating materials and waste. This will reduce the impact on coastal habitats during the construction phase.
 - 8.1.2.4 Initial archaeological assessment of the site identified 3 sites where significant palaeoenvironmental deposits are currently exposed on the beach. The site boundary of the construction area has been designed to exclude a number of these areas, therefore reducing the impact on the historic environment. Where impact on the historic environment cannot be avoided a phased programme of mitigation will be implemented which will include a series of surveys and sampling to be taken prior to construction mobilisation, followed by mitigation including a watching brief where appropriate during the construction phase and further analysis of recovered material and samples on completion of works. Mitigation are detailed in section 7.5 of the ES and will be implemented to reduce and mitigate the impact on the historic environment.
 - 8.1.2.5 The works will implement a dust management plan, all potentially dust generating activities would be subject to adequate dust suppression techniques. In addition all vehicles leaving the site are required to pass through a wheel wash facility. Should there be a build-up of material on the access route through the residential area a road sweeper will be used to remove this. The implementation of a dust management plan will reduce the emission to air.
 - 8.1.2.6 The works propose to use pre-cast concrete for sections of wall and for access steps, reducing the quantity of wet concrete required in the marine environment. This will reduce the potential impact on water quality.
 - 8.1.2.7 As works will be dependent on the tide times, consequently works during unsociable hours is likely. To reduce the impact of noise during this time white noise reversing warning beacons will be used on vehicles rather than tonal

beacons, additionally vehicles will adhere to a voluntary low speed limit while passing through residential areas during unsociable hours. A noise assessment was carried out to predict plant noise levels. Construction noise monitoring will take place to verify prediction and provide specific mitigation measures to ensure any significant noise effects are adequately controlled, this will consider plant running times and restricting the daily duration of the noisiest activities where appropriate.

- 8.1.2.8 Where possible material produced through the demolition of existing structures will be reused on site. Where material is not suitable to be reused on site it will be removed to the appropriate waste site. Appropriate waste management procedures will be adhered to reducing the potential impact of waste and adherence to the waste directive.

8.2 Mitigation or monitoring required to be attached to the consent (Regulation 22 (c)-(e))

- 8.2.1 In reaching the EIA Consent Decision required under Regulation 22, NRW must make consideration of the requirement for any mitigation measures or monitoring required to be attached to the consent.
- 8.2.2 Section 7 outlines where NRW PS considers that there is a requirement for mitigation and/or monitoring, and sets out the measures we consider necessary to address potential impacts identified through the EIA process. These are summarised below:
- 8.2.2.1 Licence conditions will be required to produce a CEMP, the CEMP will need to be submitted and approved prior to commencement of works. The CEMP will need to incorporate proposed mitigation identified within the ES as well as considering the potential impact on bathing water as discussed in section 7.2.2. The plan must be implemented as approved.
- 8.2.2.2 Licence conditions will be required to ensure that pollution prevention best practice will be adhered to, this would include that appropriate bunding and storage facilities are installed to contain and prevent the release of fuel, oils and chemicals associated with the plant, refuelling and construction equipment into the marine environment. This will reduce the impact on water quality.
- 8.2.2.3 Works consist of the use of concrete. Appropriate licence conditions will be required to reduce the potential impact of concrete use on the marine environment.
- 8.2.2.4 A licence condition will be required to ensure mariners and fishermen's organisations were aware of the activity and the HM Coastguard and UKHO were notified prior to commencement of works, this will reduce impact on navigation and other uses of the sea.
- 8.2.2.5 Works consist of the construction of a rock armour revetment. Licence conditions will be required to ensure that rock material to be imported is fit for purpose and come from an uncontaminated inert source. This will reduce the potential impact on water quality.

8.2.2.6 In considering the monitoring and mitigation requirements outlined above we do not consider that these requirements can be met by existing monitoring/mitigation arrangements.

9. Regulation 21A Conclusion about Environmental Impact

9.0.1 In reaching a Conclusion about Environmental Impact, as required by Regulation 21A, NRW has considered the following (Regulation 21A(1)):

- The application for a Marine Licence
- The Environmental Statement submitted
- Further information provided, as outlined in section 3.3
- The responses to public consultation outlined in sections 4 and 7
- The responses to the technical consultation outlined in sections 6 and 7
- Any comments received from another EEA state, as outlined in section 5 and 7
- Any features of the project, or proposed measures, to avoid, prevent, reduce or offset any likely significant adverse environmental effects as outlined in section 8.

9.0.2 NRW, as appropriate authority, has considered the likely significant effects of the project, and reached a conclusion of the likely significant effects of the project with regard to the following (Regulation 21A(2)):

Population and human health (9.1)

Biodiversity (9.2)

Land, soil, water, air and climate (9.3)

Material assets, cultural heritage and landscape (9.4)

Risk of major accidents and disasters relevant to the project (9.5)

Cumulative impacts and in-combination impacts (9.6).

9.1 Population and human health

9.1.1 The ES has assessed the impact on population and the human environment. The project is to enhance the existing defence and to protect up to 472 properties from flooding caused by overtopping during severe weather conditions. Due to the scale and nature of the project significant impact on population is not predicted during the construction phase. The ES also considered that during the construction phase there was the potential to generate impact in terms of traffic and transportation, noise and air quality and visual impact, however NRW PS consider that considering the design of the project and mitigation proposed that there will be no significant impact on population or human health as a result of the project.

9.2 Biodiversity

9.2.1 There are several protected areas within close proximity to the coastal works. The works are located approximately 200m from Liverpool Bay SPA however the works are not expected to directly impact upon protected bird species, and although there could be indirect impact through disturbance of foraging areas it is considered due to the size of the working area that there are suitable alternative foraging habitats

also available. Therefore adverse effects on protected bird species are not predicted. A Habitat Regulation Assessment was carried out and considered, subject to appropriate conditions the works will not adversely affect the integrity of any of the European Sites above.

- 9.2.2 The ES considers the potential further impact on biodiversity including that of a pollution event, or increased sedimentation caused during excavation. NRW PS conclude that considering mitigation proposed within the ES and the licence conditions outlined in section 8 related to pollution prevention best practice and adherence to a CEMP, no significant impact on biodiversity is predicted.

9.3 Land, soil, water, air and climate

- 9.3.1 There is an impact pathway to water quality and land through a pollution event. In addition, there is the potential to impact on water quality through sediment disturbance during excavation and vehicle movements during construction phase. The ES has assessed these impacts and proposed mitigation including adherence to a CEMP which would include pollution prevention best practice. NRW consider that the works have been appropriately assessed and that considering mitigation proposed within the ES and the licence conditions outlined in section 7 and section 8, that no significant impact on water quality is predicted.
- 9.3.2 There is an impact pathway to air during the construction phase, such as production of dust during demolition operations and depositing of material, however it is considered that the ES has adequately considered the impact and based on mitigation proposed by the applicant, including that detailed within section 8.1.2.5, and adherence to best practice, significant impact is not predicted.
- 9.3.3 Potential impact on climate has been considered within the ES, an increase in carbon emission is predicted during the construction phase and mitigation is proposed within the ES to reduce the project emissions. This includes the reuse of material from the existing structure where possible, in place of the use of new material. In addition, where possible it is proposed to source material from local sources to minimise carbon emissions that result from transporting material to site. Due to the scale of the works significant impact on climate is not predicted.

9.4 Material assets, cultural heritage and landscape

- 9.4.1 The ES identified peat deposits and tree remains in the vicinity of the works. Where possible impact on these features will be avoided through excluding areas of potential high archaeological interest from the working area. Where this cannot be avoided mitigation has been proposed within the ES and adherence to a Written Scheme of Investigation has been incorporated into the Planning Permission. NRW PS are satisfied that through the mitigation proposed and adherence to a WSI significant impact can be mitigated.
- 9.4.2 The ES considered impact on Landscape. There will be a temporary visual impact in the vicinity of the works due to movement of vehicles and the compound during construction, however this impact will be temporary, in addition suitable mitigation

has been proposed in the ES to reduce this impact. NRW PS consider that there is low impact on the landscape due to the project as there is no significant permanent change to the landscape as a result of the project as works are enhancing an existing coastal structure.


9.5 Risk of major accidents and disasters relevant to the project

- 9.5.1 The works are to enhance the existing defence and to protect up to 472 properties from flooding caused by overtopping during severe weather conditions. A Flood Consequences Assessment and ES demonstrated that the scheme would provide flood risk betterment in the future, would not adversely impact flood risk elsewhere and would not compromise the existing SoP provided during the construction phase. NRW PS therefore consider that the works will contribute to reducing the potential for major flood incidents in the area in the future.
- 9.5.2 Due to the nature and scale of the operation the risk of a major accident or disaster is low. In addition to this sufficient pollution prevention measures have been proposed to reduce the risk of a major accident or pollution event.


9.6 Cumulative impacts and in-combination impacts

- 9.6.1 NRW PS concluded that the potential impacts due to the project have been adequately addressed in the ES. As detailed in section 3.2.4 NRW PS carried out a Habitat Regulation Assessment as part of which an in-combination assessment was carried out and concluded subject to appropriate mitigation that the works would not cause a significant impact alone or in combination on a European designated site.

Produced By: Peter Morrison

Signed: 
Date: 28 May 2019

Approved by: Kevin Ashcroft

Signed: 
Date: 5 July 2019

10. Regulation 22 EIA Consent Decision

- 10.0.1 The Marine Licensing Team has considered the application CML1873 and information provided in support of the application and is now in a position to make an EIA consent decision to Denbighshire County Council.

- 10.0.2 In accordance with Regulation 22 of the Regulations, NRW PS, as appropriate authority, have considered:
- The application for a Marine Licence
 - The Environmental Statement submitted
 - Further information provided, as outlined in section 3.3
 - The Conclusion about Environmental Impact (under Regulation 21A(2)) in section 9 (dated 5 July 2019), which we consider to be up to date
 - The responses to public consultation outlined in sections 4 and 7
 - The responses to the technical consultation outlined in sections 6 and 7
 - Any comments received from another EEA state, as outlined in section 5 and 7
 - Whether monitoring of the significant adverse environmental effects of the Project is appropriate (as outlined in section 8), including whether
 - Existing monitoring can be relied upon
 - Conditions should be attached to the regulatory approval
 - Whether conditions to make provision for potential remedial action are required, as outlined in section 8
 - Whether any other conditions need to be attached to the regulatory approval, with respect to the likely significant environmental effects of the Project, as outlined in section 8.
- 10.0.3 After conducting a full and comprehensive review of the Project and applying appropriate additional external expertise, we conclude that the environmental impacts of the Project have been adequately identified, described and assessed. Accordingly, we conclude a favourable determination and that EIA consent for the project should be given.
- 10.0.4 We consider that adequate mitigation has been proposed or have been included as licence conditions, which will minimise or altogether remove the potential significant impact associated with the demolition, construction and operational phases of the project.
- 10.0.5 We consider that the monitoring and mitigation conditions outlined in section 8 should be considered in the regulatory decision.
- 10.1 This Written Confirmation of the EIA Consent Decision will be sent to the following, in accordance with Regulation 23 of the Regulations:
- Denbighshire County Council
 - Any person from whom NRW received representation arising from the consultation described in section 4
 - Any EEA states consulted (see section 5)
 - All consultation bodies listed in section 6
- 10.2 This Written Confirmation of the EIA Consent Decision is available on the NRW online website <https://naturalresources.wales/permits-and-permissions/permit-applications-consultations-and-decisions/marine-licensing-decisions/?lang=en>

Signed: *Alle Morrison*
Date: 10 June 2019

Approved by: Kevin Ashcroft

Signed: *K. Ashcroft*
Date: 5 July 2019
