Cyfoeth Naturiol Cymru
Natural Resources Wales

Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended), Regulation 22 - EIA Consent Decision

Title: Welsh National Sailing Academy and Events Centre, Pwllheli

Regulatory Approval: Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)

Operators: Gwynedd Council

Report No: Ref: CDML1319

Location: Pwllheli Harbour, Gwynedd

Introduction

This document constitutes an EIA consent decision under Regulation 22 of the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (MWR), in respect of an application submitted by Gwynedd Council. The application was supported by an Environmental Statement. The Marine Licensing Team has considered the application and information provided in support of the application and is now in a position to make an EIA consent decision to Gwynedd Council.

Project Description

Gwynedd Council has applied for a Marine Licence to develop a Welsh National Sailing Academy and Events Centre.

Works that require a Marine Licence under Marine and Coastal Access Act (2009) will involve:

- A number additional pontoon moorings to the north of the existing marina pontoons
- Access Bridge
- New Quay Wall
- Two Cranes
- Capital Dredging works
- Construction of a bund and an area of land reclamation using dredge arisings

Works that are considered as exempt under section 75 under the Marine Coastal Access Act (2009)

- Maintenance dredging undertaken Pwllheli Harbour Act 1983

Additional Works requiring Planning Permission under Town and Country Planning Act (1990) that do not require a Marine Licence (above MHWS)

- Temporary contractors compound with temporary offices and welfare cabins, as well as material storage.
- Landscaping of existing dredged material deposited above MHWS

The Environmental Statement (ES)

The Environmental Statement outlined possible impacts as detailed below.

Environmental Impacts

Water Movement (Hydrodynamics)

The section discusses hydrodynamics and flood risk during construction and operation
Potential key issues identified and discussed are-

In construction

-Changes to local and regional hydrodynamic function

- Increase in sediment mobilisation and turbidity due to dredging and piling activities

-Reduction in dissolved oxygen and suspension of contaminants

- Negative impact on water quality as a result of accidental spillage of materials such as fuel or other oil-based materials

In operation

-Changes to local hydrodynamic function and resulting impacts on water quality due to sediment movement

-Risk to water quality due to increased use of the Harbour.

Sediments and Soil

This section discusses the potential impacts of the proposed scheme on sediment dynamics and contamination in, and adjacent to the location of proposed scheme during construction and operation. Information is included on sediment analysis of the maintenance dredged area

Key issues discussed include increase in turbidity, reduction in dissolved oxygen and release of contaminants.

Water Quality

Impacts to water quality including Bathing Waters, Shellfish Waters and WFD Transitional Waterbodies are discussed

Flora and Fauna

This section discusses the potential impacts on protected sites and species, aquatic ecology and terrestrial ecology.

Potential key issues identified:

During construction

- Potential for temporary adverse affects on designated sites during construction from impacts on water quality, suspended sediment, noise and disturbance and loss of habitat.
- Loss of mudflat habitat, which could also have a negative impact on wintering birds
- Sediment re-suspension and settlement could inter-and-sub tidal habitats
- Noise and visual disturbance to wintering bird populations during construction activities
- Noise and vibration effects from construction activities 9e.g. piling) on fish , otter and cetacean populations.
- Dredging activities could cause suspended sediment and noise, leading to a disruption in fish migration
- Potential disturbance and small scale temporary loss of habitat on the Island/Ynys and Parc y Cob currently used by breeding skylarks
- Potential for introduction of non-native species into marine and terrestrial environments during construction.

During Operation

-Increased levels of disturbance of cetaceans from increased level of marine craft using the facility

-Potential for increase in non-native species introduction from increased level of marine craft using the facility

Transport and Navigation

This section focuses on three key access routes and a navigational assessment on the marine traffic in Pwllheli Harbour.

Potential impacts discussed

During Construction

- Potential for delivery of plant and materials by HGV to cause short term impact on local road network
- Potential for piling, dredging and general construction activities to cause short term disruption to navigation within the harbour

During operation

-Potential for the increased capacity of WNSAEC to cause additional traffic with more users accessing the site, especially during events

-Potential for changes in flows, levels or channel morphology to affect navigation and access to the harbour

-Potential for the increased capacity of WNSAEC to result in additional marine traffic using the site

Landscape and Visual Amenity

This section discusses the likely landscape and visual effect

Potential Construction Impacts

-Plant machinery and construction activity will temporarily affect the visual amenity of the harbour during construction phase

Potential Operational Impacts

- Potential affect on Pwllheli Harbour Landscape components
- Visual impact of the placement of material on the island will change the existing view over the Island site.

Note there are no landscape designations.

Archaeology and Cultural Heritage

This section discusses the potential impacts of the proposed scheme on archaeology and cultural heritage.

Potential issues during construction

Potential direct and indirect impact on the archaeological or heritage features within or close to the proposed development area

Noise and Vibration

This section assesses the noise and vibration in the vicinity of and adjacent to the proposed works.

The potential issue is the noise and vibration from construction and dredging works to cause nuisance to local noise sensitive receptors.

Cumulative Effects Assessment This section assesses the combined effects of several development schemes which may on an individual basis, be insignificant but may cumulatively have a significant effect.

Environmental Sensitivities

The proposed development is located approximately 200m from a European site of conservation Importance, the Pen Llyn a'r Sarnau SAC. As such a Test of Likely Significant Effect has been undertaken, for more details please refer to the TLSE for this project. The TLSE concludes there is no significant effect on the SAC.

Consultation with NRW (Statutory Nature Conservation Body functions) dated 15th November states: "We agree with your [*the LPA's*] conclusion under the Conservation of Habitats and Species Regulations 2010 (as amended) that the proposal is not likely to have a significant effect on a SAC, SPA or Ramsar site provided that the conditions referred to below are attached to any planning consent for the development."

In addition to the European Protected site the development has the potential to effect Lon Cob Bach LNR and Mynydd Tir Y Cwmwd a'r Glannau at Garreg yr Imbill SSSI, however, assessment within the ES concludes no significant effect on these sites.

Lastly 2.3ha of Intertidal Mudflat BAP habitat will be lost as a result of the creation of the land reclamation area. Being within the Intertidal (above MLW and also below MHWS) this has also within the jurisdiction of the Local Planning Authority (Gwynedd Council) – a compensation package has been agreed in conjunction with NRW ("advisory"), the Local Biodiversity Officer and the Planning Authority, this will be implemented as part of the Planning Permission under condition 7 " Within one year from the date of this permission a compensation/management plan for the reclaimed land shall be submitted and agreed with the Local Planning Authority. The plan should include details of how the site will be managed for wildlife as well as details of its future

management."

Consultation

Public Notices

The public notice was advertised in the Caernarfon and Denbigh Herald on the 5th September 2013 and on the 12th September to notify interested parties of the proposed works and to give interested parties an opportunity to make representation on the application as necessary. No public representations were received.

The marine works application was consulted on in 28th August 2013 and sent to
the following: The Natural Resources Wales – 'advisory functions' (NRW) , The Centre for Environment, Fisheries and Aquaculture Science (Cefas), Ministry of Defence (MoD), , Maritime and Coastguard Agency (MCA), The Crown Estate (TCE), Local Planning Authority (LPA), Local Harbour Authority (LHA), Local Biodiversity Officer (LBO), Royal Yachting Association (RYA), Royal Society for the Protection of Birds (RSPB),Trinity House (TH), Cadw (Cadw) and Welsh Government Fisheries Branch, Marine Enforcement Officers (MEO).

Representations Received

As a result of the technical consultations a number of representations were received as outlined below. Each comment requiring a response has been sent to the applicant for comment on which the technical advisor provided additional comments. Marine Licensing Team comments for each issue can be found at the end of each section.

Natural Resources Wales comments:

Comments dated 17th September 2013

Conservation of Habitats & Species Regulations 2010
The proposed scheme is located approximately 200m from the Pen Llyn a'r Sarnau Special Area of Conservation (SAC). We note that a Statement to inform a test of likely significant effect assessment under the Conservation of Habitats & Species Regulations 2010 has been submitted as part of the applications' supporting documentation.

However we are not satisfied that the information provided as part of the licence application/Environmental Statement allows for a satisfactory assessment of the possible impact of the development on the protected site including informing the HRA. Main Issues are highlighted below. [In summary statement NRW (advisory) object to this development]

- Impacts from suspended sediment from dredging
The main potential impacts which have been identified as part of this scheme include impacts from suspended sediment from dredging, which could negatively affect Reef and Large Shallow Inlet and Bay features of the SAC located close to the harbour mouth, principally through changes in turbidity and smothering. The submission calculates the sediment produced from dredging operations expected to exit the harbour on one ebb tide to be in the range of 1.04ppm and
concludes that this increase in sediment is a level unlikely to negatively effect features of the SAC and will not produce sediment levels greater then what would be expected during the flood tide.
We do not consider that the rationale for concluding no likely effects from increased sedimentation in the bay is sufficient because it does not provide an adequate assessment of the fate of suspended sediments and deposition of those suspended sediments under realistic and worst case scenarios for the planned dredging.

It is considered that the approach and calculations assessing the effects of increased sedimentation need to be revised in order to provide a sufficiently robust assessment of the fate and deposition of suspended sediments (i.e. the predicted distance for suspended sediments to travel into the bay and whether the levels of suspended sediments fall within the normal range for that area).
A revised assessment of the impact of suspended sediments is needed.

Applicant response:
A redrafted habitats screening assessment, including the revised assessment on suspended sediments was submitted to address NRW advisory concerns.

NRW response to applicants comments/resubmission
We are satisfied that the submission now allows for an assessment to be made of the possible impact of the proposed development on the Pen Llyn a'r Sarnau Special Area of Conservation.
We agree with your conclusion under the Conservation of Habitats and Species Regulations 2010 (as amended) that the proposal is not likely to have a significant effect on a SAC, SPA or Ramsar site provided that the conditions referred to below are attached to any planning consent for the development.

On a point of detail, we wish to note that we do not agree with the following comment in the conclusion of the Statement to inform the HRA (p41): 'An *investigation into the sediment produced from dredging operations have shown that levels of sediment produced assessed to be low and although some sediment is likely to leave the harbour during dredging, water leaving the harbour effectively dilutes the ambient sediment loading within the Bay even during dredging operations and therefore no significant effects are predicted on SAC features..'.* It is considered that this comment miss-represents the actual situation since the riverine input is an on-going discharge that simply contributes to overall nature of the water body in Tremadog Bay, and should not be presented as though it provides mitigation for the slightly raised sediment loading that will be discharged into Tremadog Bay as a result of dredging operations.

We consider that it would be more appropriate for this section of the conclusion to read '*Investigation into the sediment produced from dredging operations have shown that levels of sediment produced assessed to be low and although some sediment is likely to leave the harbour*

during dredging, the volume is small and will be rapidly dispersed within the water body of Tremadog Bay. Please also note as a point of detail that we do not concur with the following statement included in the conclusion of the Statement to Inform the HRA '*The Reef features located in this area not particularly sensitive to changes in turbidity ….".*
There is no evidence submitted to support this statement. Some of the reef features within the bay are subtidal boulder habitats supporting algae communities which are sensitive to changes in turbidity.

- Impacts from suspended sediment from dredging
Our initial comments on the proposal identified that the main potential impacts of the development on the Pen Llyn a'r Sarnau SAC could be negative impacts from suspended sediment from dredging on the Reef and Large Shallow Inlet and Bay features of the SAC located close to the harbour mouth, principally through changes in turbidity and smothering.

We are satisfied that the Appendix A Addendum provides an adequate rationale for an assessment to be made of both the fate of the suspended sediments and deposition of those suspended sediments under realistic and worst case scenarios for the planned dredging.
We are therefore satisfied that the impacts from suspended sediment from dredging won't have a negative effect on reef and large shallow inlet and bay features of the SAC and therefore that the proposal will not have a significant effect, either directly or indirectly on the Pen Llyn a'r Sarnau SAC, provided that the mitigation and conditions noted further below and within the Habitats Regulation Assessment are implemented and adhered to.

Clarification was provided during our meeting that a total volume of 81,000m3 of sediment will be dredged (32,000m3 Maintenance Dredge and 49,100m3 Capital Dredge).

In terms of the release of sediment from the bund construction and holding area we request that any planning permission given for the development includes a condition requiring the submission of a method statement which should be agreed prior to the commencement of development. The statement should provide full details of the dredging method, quay wall construction, pontoons and bund construction.

As recommended the assessment now considers the worst case scenario with a 5m3 ebb tide used for sediment release calculations and modelling purposes and 2% used as a worst case scenario loss of sediment from the dredger. The calculations based on the above now indicate a 2.5m3 release of dredged sediment into Cardigan Bay.

In terms of assessing the sediment plume effects (both amount and type) in the far field outside of the harbour entrance, we are satisfied that it has been demonstrated that sediment will travel in an easterly direction.

In terms of coastal process, reference has now been made to the Pwllheli Pilot Climate Change Adaptation Strategy prepared by Halcrow. As part of this pilot scheme the 'Pwllheli Geomorphological Baseline Report 2011' has been produced which details historic changes to the coastline and identifies current coastal processes within Pwllheli. We are satisfied that this information provides details of the dispersive effects of tidal currents within the bay, including both speed and direction.

In addition information has now been provided with regards to the outcomes of previous dredging campaigns to inform the assessment of fate of suspended sediment.

It is now reasonable to conclude, that any sediment released from the harbour mouth is likely to travel in an easterly direction, although some sediment will be deposited in the lie of the harbour arm.

We are now satisfied that following receipt of additional information that the proposed development will not have a significant effect on the Pen Llyn a'r Sarnau SAC provided that the following conditions are attached to any marine licence granted for the proposed development.

To conclude, NRW does not object to the proposed development subject providing that the advice outlined above is implemented and that the conditions listed are attached to any marine licence granted for the proposed development.

MLT comments: NRW advisory concerns have now been addressed and the development will not have an effect on European protected Sites, the recommended conditions will be included within the Marine Licence

- SAC features identified in the HRA

In addition to the protected site features identified, the population of the nationally rare amphipod Pectenogammarus planicurus located to the west of the harbour mouth also needs to be considered. The species is highly sensitive to change in grain size and slope (needs a specific size grain to survive). Any siltation of this habitat could have a significant effect on population which is a sub feature of the large shallow inlet and bay feature).

The assessment in the ES of no impact on the red seaweeds Anotrichium barbatum and Dermocorynus montagnei which is part of the large shallow inlet and bay feature of the SAC is based on the conclusions of the fate of suspended sediment. Given our comments on this (see above) we do not consider that it is possible to conclude no impact based on the information currently presented in the submission. Anotrichium barbatum and Dermocorynus montagnei are part of the large shallow inlet and bay feature of the Pen Llŷn a'r Sarnau SAC and should be referred to in the HRA.

MLT comments: Revised HRA was submitted and approved by NRW advisory – please see above.

- Non-native species and Biosecurity

We would wish to receive a bio-security risk assessment at [the application] stage as well as further details regarding the pontoon design. The submission identifies that such an assessment will be undertaken by the contractor and Gwynedd Consultancy before work begins and that during operation, a biosecurity code of practice will be promoted in the WNSAEC.

Should a bio-security risk assessment not be available at application stage, we would expect the submission of such an assessment to be a condition of any planning permission given for the development together with an Environmental Management Statement, both to be agreed with NRW prior to the commencement of any work on site.

We would expect easy clean pontoon designs to facilitate future inspection and cleaning to address, amongst other things, potential control of invasive non native species (INNS). Should further details regarding the pontoon design not be available at planning application stage, we would expect submission of pontoon designs and agreement with NRW of their suitability for control of INNS prior to their installation to be a condition of any planning permission given for the development.

MLT comments: Conditions will be included to address these concerns

- Compensation for loss of intertidal mudflat

NRW considers that a well though out compensation package is required for the loss of mudflat arising from the proposal, including a package that is linked with the existing Local Nature Reserve and provides real potential for biodiversity benefits.

-additional comments received from NRW advisory dated 25/09/2013

I can confirm that the compensation scheme for the BAP Habitat will be subject of any planning approval given for the proposed development.

MLT comments:

A compensation package for the loss of intertidal mudflat has been agreed with the local planning authority. this will be implemented as part of the Planning Permission under condition 7 " Within one year from the date of this permission a compensation/management plan for the reclaimed land shall be submitted and agreed with the Local Planning Authority. The plan should include details of how the site will be managed for wildlife as well as details of its future management."

This compensation package has been deemed as sufficient by both NRW advisory functions and the Local Biodiversity officer, as such no additional mitigation is required as part of the marine licence.

- Local and Regional Interests

Please note that we have not considered possible effects on all local or regional interests (including Local Biodiversity Action Plan habitats). Therefore, you should not rule out the possibility of adverse effects on such interests. Your decision should take account of possible adverse effects on such interests.

MLT comments: noted, as part of the consultation the LBO and RSPB have been consulted. Both did not respond to the consultation.

Flood Risk

Section 82 of the Marine and Coastal Access Act 2009 stipulates that a Food Defence Consent under the Water Resources Act 1991 will not be required, provided we are satisfied that all the conditions we would require can be addressed through the Marine Licence.

In this instance, due to the nature of the work, we do not anticipate a Flood Defence Consent will be required. Please note, however, that if we believe that the conditions of the Marine Licence do not fully address our concerns in relation to flooding, we reserve the right to require you to apply for a Consent under the terms of the Water Resources Act 1991.

MLT comments: Noted

Waste Management and Pollution Control

Pre-planning consultation has been ongoing in relation to this proposal with regard to dredged material management. Dredged material is to be used for land reclamation and provision of

environmental benefit to compensation for loss of a section of mudflat within the harbour.

We recommend that a Site Waste Management Plan (SWMP) is drawn up prior to scheme's commencement in order to ensure full duty of care is complied with. Waste should be reused on site where possible. The SWMP should incorporate a monitoring system for wastes removed from site for reuse or disposal. Any waste removed from site must be taken to a suitably permitted facility by a registered waste carrier.

Natural Resources Wales should be notified of commencement of work on site.

All works are to be carried out with due regard to Environment Agency guidance PPG5 with regard to works in and around watercourses. If there is an incident that causes or may cause pollution then it must be reported to Natural Resources Wales via the incident hotline 0800 807060 providing, date, time, location, any mitigation already implemented and a contact name and phone number.

MLT comments: conditions will be included within the licence based on the comments above.

Cefas Comments:

Cefas provided comments on the following areas under headings A-K:

A: Shellfisheries

1. There are no designated commercial molluscan shellfish production zones in the vicinity of the proposed works therefore these are not of concern for this project.

MLT Comments: noted

B: Fish resources

2. The proposed scheme is relatively small spatially and I agree that the impacts on most of the resident fish species will be localised and of a temporary nature, i.e. restricted to the duration of the construction period. The impacts on fish of conservation concern have been clearly assessed and acknowledged. Evidence presented shows that these species (salmon, sea trout, river lamprey and European eel) utilise Pwhelli Harbour during migratory movements. I agree with the summary of the impacts given in the ES for fish during construction - moderate adverse significance.

3. Evidence has been gathered at an appropriate spatial scale – key species of importance have been suitably identified and the local and national impacts on fish species have been considered. European eel has been identified in the ES as a UKBAP Priority species. However, the ES fails to note it is also listed on the IUCN Red List of Threatened Species as 'Critically Endangered' and this should be amended.

4. Extra detail could have been provided by liaison with local fishermen, particularly those that fish the Rivers Erch and Rhyd-Hir. In Section 9.5, page 121, it would have been useful to have a

more detailed presentation of the quantitative data mentioned for the species of conservation concern. Survey data for lamprey larvae, catch data for eels and fisheries information for salmon and sea trout are referred to but no details of catch or survey methods have been provided and this is required.

5. I agree that the measures outlined to mitigate the impacts on fish, and in particular important migratory fish species (salmon, sea-trout, European eels), are appropriate. However, this will only apply if the timings proposed in the construction programme are adhered to. In the main, impacts on fish will arise from disturbance during piling and dredging operations. The commitment to soft start piling will reduce this disturbance and allow resident fish to take avoidance action. In addition, piling activity will only take place during daytime. This results in there being a significant proportion of time without disturbance in each 24-hour period during which migratory fish may pass in or out of the harbour. The timing of the piling operations during December to February lies largely outside the peak critical period during which important species (with the exception of River lamprey) undertake migratory journeys through Pwllheli Harbour – March through to October for salmonids and European eel.

6. Dredging operations will also disturb the migratory movements of any fish endeavouring to pass into or out of Pwllheli Harbour and, as with the piling activity, impacts will be mitigated to some extent by taking place at a less crucial time of year regarding fish movements. However, unlike the piling operations permission is being sought to allow dredging 24 hours a day, seven days a week for a period of approximately 12 weeks commencing mid-November 2013. The ES states (page 138) that there will be regular periods when no dredging is actively taking place – shift changes, re-alignment of dredger etc. - but it does not indicate how many or for how long each break of this nature will routinely last in a 24-hour period. I appreciate that an attempt has been made to quantify this non-dredging time over a weekly period, resulting in a calculated figure of approximately 30% of the time. However, more crucial is information relating to the time that is free from disturbance in each period of 24 hours. In order to effectively mitigate the impact on migratory species during the overall capital dredging work period there needs to be regular breaks of several hours duration in every 24- hour cycle. This will give any fish the time required without noise or other disturbance barriers to pass through the area. I would therefore like confirmation of how much of the working time over a 24-hour period that no dredging will take place during the capital dredging campaign as I would like to be satisfied that enough time will be available for fish movements during each day/night cycle during dredging.

7. The impacts on migratory species as they are currently assessed in the ES rely on the premise that piling and dredging activity will be completed by the end of February (and is one of the mitigating factors that is proposed). It does not give any assessment to cover impacts if the works over-run into March. Without this evidence and to maximise the protection for this and the other species of conservation interest utilising Pwllheli Harbour I would suggest that piling and dredging works must not extend into March 2014. If it is necessary to pile/dredge later than February, then the impacts will need to be re-assessed according to the new time-scale.

Applicant Response to each statement requiring response is noted below identified by AR.

*"*Fish resources

1. The proposed scheme is relatively small spatially and Cefas agree that the impacts on most of the resident fish species will be localised and of a temporary nature, i.e. restricted to the duration

of the construction period. The impacts on fish of conservation concern have been clearly assessed and acknowledged. Evidence presented shows that these species (salmon, sea trout, river lamprey and European eel) utilise Pwhelli Harbour during migratory movements. Cefas agree with the summary of the impacts given in the ES for fish during construction - moderate adverse significance.

AR: Noted

2. Evidence has been gathered at an appropriate spatial scale – key species of importance have been suitably identified and the local and national impacts on fish species have been considered. European eel has been identified in the ES as a UKBAP Priority species. However, the ES fails to note it is also listed on the IUCN Red List of Threatened Species as 'Critically Endangered' and this should be amended.

AR: Noted. We don't believe that this changes the significance of impact assigned to the European eel.

3. Extra detail could have been provided by liaison with local fishermen, particularly those that fish the Rivers Erch and Rhyd-Hir. In Section 9.5, page 121, it would have been useful to have a more detailed presentation of the quantitative data mentioned for the species of conservation concern. Survey data for lamprey larvae, catch data for eels and fisheries information for salmon and sea trout are referred to but no details of catch or survey methods have been provided and this is required.

AR: The Environment Agency Wales (EAW) survey data on which the assessment was based is attached. We don't believe liaison with local fishermen would be appropriate in this case as fishing activity on the Erch and Rhyd Hir is relatively low. Pwllheli angling club hold rights on some parts of the rivers and members are required to provide catch returns. However, several parts of the rivers are in private ownership with fishing rights either owned by the landowner or let to individuals. Obtaining accurate catch returns from anglers would therefore require a catchments wide search of all fishing rights, which we don't believe is appropriate in this case and therefore we have used the EAW data.

4. Cefas agree that the measures outlined to mitigate the impacts on fish, and in particular important migratory fish species (salmon, sea-trout, European eels), are appropriate. However, this will only apply if the timings proposed in the construction programme are adhered to. In the main, impacts on fish will arise from disturbance during piling and dredging operations. The commitment

to soft start piling will reduce this disturbance and allow resident fish to take avoidance action. In addition, piling activity will only take place during daytime. This results in there being a significant proportion of time without disturbance in each 24-hour period during which migratory fish may pass in or out of the harbour. The timing of the piling operations during December to February lies largely outside the peak critical period during which important species (with the exception of River lamprey) undertake migratory journeys through Pwllheli Harbour – March through to October for salmonids and European eel.

AR: See response below Point 6

5. Dredging operations will also disturb the migratory movements of any fish endeavouring to pass into or out of Pwllheli Harbour and, as with the piling activity, impacts will be mitigated to some extent by taking place at a less crucial time of year regarding fish movements. However, unlike the piling operations permission is being sought to allow dredging 24 hours a day, seven days a week for a period of approximately 12 weeks commencing mid-November 2013. The ES states (page 138) that there will be regular periods when no dredging is actively taking place – shift changes, re-alignment of dredger etc. - but it does not indicate how many or for how long each break of this nature will routinely last in a 24-hour period. Cefas appreciate that an attempt has been made to quantify this non-dredging time over a weekly period, resulting in a calculated figure of approximately 30% of the time. However, more crucial is information relating to the time that is free from disturbance in each period of 24 hours. In order to effectively mitigate the impact on migratory species during the overall capital dredging work period there needs to be regular breaks of several hours duration in every 24- hour cycle. This will give any fish the time required without noise or other disturbance barriers to pass through the area. Cefas would therefore like confirmation of how much of the working time over a 24-hour period that no dredging will take place during the capital dredging campaign as Cefas would like to be satisfied that enough time will be available for fish movements during each day/night cycle during dredging.

AR: See response below Point 6

6. The impacts on migratory species as they are currently assessed in the ES rely on the premise that piling and dredging activity will be completed by the end of February (and is one of the mitigating factors that is proposed). It does not give any assessment to cover impacts if the works over-run into March. Without this evidence and to maximise the protection for this and the other species of conservation interest utilising Pwllheli Harbour Cefas would suggest that piling and dredging works must not extend into March 2014. If it is necessary to pile/dredge later than February, then the impacts will need to be re-assessed according to the new time-scale.

AR: In response to Points 4, 5 and 6.

Consultation with the Environment Agency Wales's (EAW) fisheries department during the planning stage of this project confirmed the following:

There is no ideal time for piling/dredging as the Rhydhir and the Erch have runs of Salmon, Sea Trout, Sea lamprey and Eels at different times of the year. These are two of the few rivers in Wales left with runs of Blue-black Salmon. These species enter the rivers in late January and early February and spawn in a matter of days, returning immediately to sea. The smolts (salmon, sea trout) run occurs in late April through to May.

Discussion with the EAW raised no issues with the timing of the piling works, especially considering that piling activity will only take place during working daylight hours allowing the free passage of fish through the harbour at all other times.

The EAW also confirmed that they would have no issues with the timing of the works if free passage is maintained in a part of the channel during the works. We aim to achieve this through the regular breaks in dredging described below and more so through the fact that localised nature of the dredging works will mean that in almost all cases, a part of the harbour and channel will be free from disturbance to allow for the passage of fish.

No dredging will take place for 30% of the operating time. This figure was calculated by using data provided by the contractor which states that from a possible weekly working time of 168 hours, 120 hours will be spent dredging. The remainder of the time will be spent on crew changes (which happen at 12 noon and 12 midnight and take approximately 1 hour), refuelling, repositioning the dredger and general maintenance. Apart from the crew changes it is difficult to give an exact daily figure for the other operations, as this depends on the location of the dredging works, nature of material and so on. However, on average no dredging will take place for 7.2hr of every 24hr period.

From our consultation with the EAW, who stated that there is no ideal time for undertaking these works, our understanding is that maintaining a part of the channel free from disturbance is of importance. As stated in the ES, when the proposed dredge location profile is considered in relation to the area of Pwllheli Harbour, it can be seen that in the majority of the marina basin a distance of between 60m to 100m would be available between the dredger and mean low water. During periods of high tide, this value will increase significantly and there will also be a greater depth of water in the channel. It is therefore considered that when dredging is occurring in these areas, there will be adequate room either side of the dredging apparatus for fish to pass undisturbed.

During the maintenance dredge of the harbour approach channel, the outer limits of the dredge area will be within approximately 10-15m from the line of mean low water. Opposite the existing stilling lagoon the area of proposed dredge is on the line of mean low water. This represents a potential limit to passage of fish at low water. Again at high water, there is a greater possibility of fish being able to pass the dredger due to the greater volume of water within the harbour.

As noted above the greatest obstruction to the passage of fish occurs when undertaking maintenance dredging in the harbour approach channel at low water, as this is the narrowest point of the harbour. We have since reviewed the dredge requirement in this area following recent bed levelling work, and can confirm that approximately 1400m^3 of material will need to be dredged

from the whole of the approach channel. Taking into account that at full capacity the dredger can remove up to 965m^3 a day, we believe that dredging in this area would take a maximum of 4 days (assuming the dredger is not working at full capacity and allowing for dredger movement to give a worst case scenario).

Not allowing for the breaks in dredging, this means that dredging at either side of low water within the channel would only take place on a maximum of 8 separate occasions. We don't believe that this frequency of dredging would cause a significant obstruction to fish passage within the harbour.

As we have previously agreed the above approach with the EAW (now NRW) and the same approach will be taken for the maintenance dredge work we would hope, for consistency, that this approach can be adopted for both dredging areas.

Cefas Response to Applicants Comments

With regards to fish resources (paragraphs 1-6 below) I have the following comments to make:

The provision of estimates of non-dredging activity within a 24-hour period clarifies the amount of time that will be available for fish movements without any disturbance. The extra confirmation on the spatial areas that will be available for fish movements during piling/dredging activity is noted, as is the consultation that has taken place on these issues with the Environment Agency Wales. Equally the provision of the source fisheries data and the explanation of what data is or isn't available satisfies my request for information in these areas.

The only point I raised that has not been specifically acknowledged is that if pile/dredge works significantly over-run the impacts would need to be re-assessed according to the new time-scale. I note the point that there are runs of salmon, sea trout, sea lamprey and eels at different times of year. I do not disagree that this means there is no 'ideal' time for these works to take place. However, there are times when the impacts of pile/dredging activity will be greater – i.e. peak periods during spring/summer when greater frequencies of fish movements will be taking place in or out of Pwhelli Harbour – and for this reason they become far 'less ideal'. This is also where the international status of the European eel becomes of greater import (although I agree it does not change the significance of the impact as currently assessed in the ES). At this stage there is no additional work or information required but I would ask for acknowledgement that impacts on migratory fish species of conservation concern might differ from those as currently assessed (in this case increase) should pile/dredge works need to be carried out in spring.

One other minor point raised below that needs clarification is the stated timing of the smolt run. Below it states 'The smolts (salmon, sea trout) run occurs in late April through to May.' This differs from the timing given in the ES (from the same source) which states 'Smolts tend to move out of the rivers and through Pwhelli Harbour in the spring (March and April)'.

Applicant Response to Cefas:

Smolt run happened from late April to May. I think the March – April timing in the ES may have

been on oversight as it wasn't updated when we received the information from the EAW. Apologies for any confusion, we don't feel this changes the conclusions of our assessment.

Cefas Response to Applicants Comments

With regards to the clarifications provided by the applicant for Pwllheli WNSAEC I that we are content with the response received. The information provided in section 7 (from page 28, Applicant Supporting Documents HRA Screening.pdf) with respect to the assessment of the existing sediment loads in Cardigan Bay is sufficient. Also, the response with regards to the smolt period clarifies and satisfies the outstanding fisheries issues.

MLT Response:

Noted that there is no ideal time for piling and that an assessment within the ES of times has not covered piling and dredging into the month of March. The piling and capital dredging aspect of the project will be conditioned to ensure that these activities do not take place in the period that has not been assessed. The applicant is aware that should the time scale slip this period will need to be reassessed. Note: MLT have no jurisdiction over the maintenance dredge area as this is exempt under s.75 of the MCAA therefore, this cannot be conditioned –as the applicant has powers to maintenance dredge as they choose to do so.

All other Cefas concerns with regards to fisheries have been addressed by the applicant.

C: Benthic ecology

8. The main potential (construction and operational) impacts of the project on benthic ecology are increased suspended solids associated with the capital and maintenance dredging on the SAC and the loss of 2.3 ha of intertidal mudflats (a BAP feature of national importance). Regarding the suspended solids, some calculations are summarised regarding the predicted increase in suspended sediment load (a 3.3% increase) which I would agree is unlikely to have an adverse effect on the features of the SAC, although no reference is made to the exact location and nature of these features. The same predicted suspended load is used to assess the potential impact on the sheltered muddy gravels (also a BAP feature) – I agree that the 3.3% increase is unlikely to affect the integrity of this feature also.

9. Although no new data were collected, the evidence used to support the ES appears fit for purpose. These include reference to designated sites, physical impacts of the dredging works, and reference to the biological species within the intertidal mudflat from earlier work. The invertebrate assemblages of the mudflat in Pwllheli have not been surveyed since 2004, but they are unlikely to have changed significantly.

10. The loss of 2.3 ha of BAP feature intertidal mudflat presents the most significant impact of this project – an impact during the construction phase which, by definition, remains during the operational phase. The loss of this habitat (high magnitude and of major adverse significance) cannot be mitigated for and compensation measures are outlined (approx. 14.25 ha of mudflat

within the harbour will be designated as an extension to the local LNR). I defer to the view of NRW advisory (formerly CCW) as to the suitability of this as a compensation measure for this project.

11. Suspended sediment monitoring during the dredging and dewatering of sediment is indicated but minimal information is given regarding how this will be conducted. I would suggest that this mitigation is formalised into a licence condition.

MLT Comments: Noted, NRW advisory have agreed a compensation scheme with the applicant in conjunction with the applicant.

With regards to point 11 we are minded to include the condition as recommended by NRW advisory also "A programme for regular monitoring of water quality and visual inspection of the de-watering facilities of the reclamation area is to be agreed with the Local Planning Authority and Natural Resources Wales (NRW) prior to commencement of works. This should include agreement over the threshold of suspended sediments and methods and frequency of monitoring. The monitoring programme should also identify methods of mitigation in the instance that target sediment loading is exceeded."

D: Coastal processes

12. The environmental issues considered regarding the potential impact on the physical environment during construction and operation are appropriate and summarised in Table 2.1 (page 10). Residual impacts and cumulative impacts are summarised and assessed in Chapters 14 and 15 (pages 246 and 263).

13. The baseline provided for sediments and water quality is appropriate however it is noted that there are no data available on the existing suspended sediment loading within Cardigan Bay (section 7.5.1, page 87); this information is relevant for the assessment of potential impacts on the Pen Llyn a'r Sarnau SAC due to the increase in suspended sediment concentrations (5.2, page 18 Appendix 6.1). Suspended sediment concentration load values from within the harbour should be updated (the referenced data are from 1986) and the values referred to as "normal" or background levels should be included (7.4, page 80; 5.2, page 19, Appendix 6.1).

14. The description of the environment is not accurate in terms of hydrodynamics as the description is more qualitative (e.g. waves "small in height", 6.4.1, page 72) than quantitative; information of mean significant wave height and mean wave period at the study area is not presented. Given the characteristics of the area of the study, the wind and wave information presented (6.4.1, page 72) is likely to be reliable, however, evidence should be provided.

15. The timeliness of the majority of the data included in the baseline descriptions is appropriate (sections 6.4, 7.4 and 8.4, pages 71, 79 and 94) regarding hydrographic surveys, tide, sediments and water quality. However, there is no information about the wind and wave data used for the assessment (6.3.1, page 70) and this should be provided.

16. It was not possible to assess the potential impacts description presented in Appendix 6.1 as the evidence provided is not complete. The legends of figures should be included in order to assess the model results.

17. No statistical accuracy assessment has been included as part of the numerical model presented in Appendix 6.1; this should be provided by the applicant.

18. Mitigation measures with respect to hydrodynamics, sediments and soil are sufficient (sections 6.5.1, 6.5.2, 7.5.1 and 7.5.2, pages 74, 76, 87and 88). Mitigation measures for water quality are appropriate and presented in 8.5.1 (during construction) and 8.5.2 (during operation) (pages 96-97 and 98 respectively). During bund construction, land reclamation and dredging operations, regular monitoring plans and visual inspections of the de-watering facilities are considered and will be agreed with NRW; those measures will occur for maintenance and capital dredging to ensure that no sediments will be discharged into the Pwllheli Harbour, (3.4.1, page 26; 16.5, page 277-278). Before the construction, levels of suspended solids will be agreed with NRW; if the levels observed are not acceptable, additional mitigation measures should be applied immediately as noted by the applicant in 3.4.1, (page 26). No monitoring plans are proposed with respect to hydrodynamics (16.5, page 277). No monitoring plan is proposed during the operation phase (sections 7.5.2 and 8.5.2, pages 88 and 98 respectively).

Applicant Response to Cefas:

Applicant Reponses to Cefas Comments are listed as AR under each point

The environmental issues considered regarding the potential impact on the physical environment during construction and operation are appropriate and summarised in Table 2.1 (page 10). Residual impacts and cumulative impacts are summarised and assessed in Chapters 14 and 15 (pages 246 and 263).

AR: Noted

The baseline provided for sediments and water quality is appropriate however it is noted that there are no data available on the existing suspended sediment loading within Cardigan Bay (section 7.5.1, page 87); this information is relevant for the assessment of potential impacts on the Pen Llyn a'r Sarnau SAC due to the increase in suspended sediment concentrations (5.2, page 18 Appendix 6.1). Suspended sediment concentration load values from within the harbour should be updated (the referenced data are from 1986) and the values referred to as "normal" or background levels should be included (7.4, page 80; 5.2, page 19, Appendix 6.1).

AR: We have submitted further information to NRW (advisory) regarding existing sediment loading within Cardigan Bay in relation to the assessment on the impact of sediments on the Pen Llyn a'r Sarnau SAC. This information is also presented in the amended Statement to Inform an Appropriate Assessment which I believe has been approved by NRW and Gwynedd Council Development Control Unit. A copy is attached.

The description of the environment is not accurate in terms of hydrodynamics as the description is more qualitative (e.g. waves "small in height", 6.4.1, page 72) than quantitative; information of mean significant wave height and mean wave period at the study area is not presented. Given the characteristics of the area of the study, the wind and wave information presented (6.4.1, page 72) is likely to be reliable, however, evidence should be provided.

AR: There were no data as such available for the assessment. The assessment was undertaken using professional judgement considering the physical characteristics of the study area, including the enclosed nature of the harbour and recognising the short fetch available over which waves can develop.

10. The timeliness of the majority of the data included in the baseline descriptions is appropriate (sections 6.4, 7.4 and 8.4, pages 71, 79 and 94) regarding hydrographic surveys, tide, sediments and water quality. However, there is no information about the wind and wave data used for the assessment (6.3.1, page 70) and this should be provided.

11. It was not possible to assess the potential impacts description presented in Appendix 6.1 as the evidence provided is not complete. The legends of figures should be included in order to assess the model results.

No statistical accuracy assessment has been included as part of the numerical model presented in Appendix 6.1; this should be provided by the applicant."

AR: Please find an amended copy of the report in appendix 6.1 which covers points 10, 11 and 12.

Cefas Response to Applicants Comments

It is noted that the applicant has considered the questions/points (numbered from 7 to 12) raised from the coastal processes advice provided. The following comments address the response from the applicant:

Response 7: noted by the applicant.

Response 8: given the mitigation measures with respect to the sedimentation effects due to dredging (table 3.1, page 16 amended Statement), and the assessment of the potential impacts of sediment loading in Cardigan Bay (5.2, page 22-24 amended Appendix 6.1), there is no concern about sediment loading impacts due to dredging. However, I still cannot find the natural or background SSC values in Cardigan Bay referred in question 8. Could the applicant specify where

these values have been included?

Response 9: I agree with the response from the applicant, however the assessment would be easier if a scale is added in the Figures 4 – 13 (Amended Appendix 6.1).

Response 10: following the comments given in response 9, it is assumed that wind and wave data mentioned in 6.3.1 (page 70, ES) and used in the assessment, correspond to the same data referred in response 9.

Response 11: It is noted that legends in figures 4-13 were added as requested.

Response 12: It is also noted that the applicant included a model stability result (4.1, page 20 amended Statement); however it is not a calibration/ validation evidence. Although the applicant haven't provided statistical accuracy measurements, there are not further concerns.

With regards to the new documentation supplied with the below email, I have a few minor comments:

-Cross-references of Figures 4 and 13 (pages 13 and 18 respectively, amended Appendix 6.1) need to be amended as they appear to have a formatting error.

-Figure 16 (page 23, Amended Appendix 6.1) should include the units and axes labels.

-The comment in 7.1 (page 31 amended ES) should reference the studies and works mentioned: "A review of recent geomorpholical studies and previous harbour works has been undertaken and concludes that any sediment leaving the harbour is likely to be in an easterly direction.". A typo error ("geomorpholical ") also exists in this statement.

Applicant Response to Cefas:

The information regarding existing load in Cardigan Bay is presented the SIAA, latest copy attached which has been signed off by NRW for the purposes of the planning application. The information is presented in Section 7, from page 28 onwards. Based on our historic hydrographic surveys we have been able to work out, on average, how much sediment enters the harbour from the bay on each tide, which gives us a good indication of the existing sediment load within the bay.

Cefas Response to Applicants Comments

With regards to the clarifications provided by the applicant for Pwllheli WNSAEC I that we are content with the response received. The information provided in section 7 (from page 28, Applicant Supporting Documents HRA Screening.pdf) with respect to the assessment of the existing sediment loads in Cardigan Bay is sufficient.

MLT Comments:

Applicant has addressed Cefas concerns, appropriate mitigation has been recommended by Cefas and NRW advisory. Comments with regards to presentational errors which do not effect the technical advice have not been included as this does not impact the decision making process.

E: Minor technical comments

19. The location or boundaries of the Pen Llyn a'r Sarnau Special Area of Conservation (SAC) should be indicated in Figure 1.2 (page 2, Chapter 1) as it is referred to in 1.4.5 (page 5).

MLT comments: Noted but have no impact on decision making process

F: Dredge material quality:

20. Samples have been requested for this application and are currently being collected and analysed. I will provide further advice on the suitability of the material to be dredged and re-used once the chemical analysis results are available.

MLT: Noted, the taking of samples will form a condition of the Marine Licence. The condition will prevent the capital dredge and the disposal of the maintenance dredged arising below MHWS until samples have been analysed and the dredging and deposit approved. Other conditions will be added on should this be needed at that stage.

G:Dredging method:

21. A cutter suction dredger is proposed to be used for the dredging works. All dredge arisings will be pumped via a pipeline and contained by a stone bund constructed within the existing harbour, to the south west dredge area. The type and method of dredging proposed are suitable at this site. Best practices should always be adopted and this may be an area on which NRW may wish to comment.

MLT: Noted, NRW have provided comments

H: Alternatives to sea disposal:

22. The project proposes to reuse the material in the construction and land reclamation works rather than disposal to sea.

MLT comments: Noted

I: Conservation designations

23. The proposed works are located approximately 100 m from Pen Llyn a'r Sarnau SAC and 170 m from Mynydd Tir Y Cwmwd a'r Glannau at Garreg yr Imbill SSSI. These sites are designated for:

    Pen Llyn a'r Sarnau SAC – sandbanks, estuaries, coastal lagoons, inlets and bays, reefs, mudflats and sandflats, salicornia, Atlantic salt meadow, sea caves, bottlenose dolphins, otter, grey seal

    Mynydd Tir Y Cwmwd a'r Glannau at Garreg yr Imbill SSSI - geological, botanical and marine biological features

24. I believe that the location, nature and scale of the works may warrant a test of likely significant effect under The Conservation of Habitats and Species Regulations 2010, however I defer to NRW Advisory (formerly CCW) on this matter.

MLT comments: A TLSE has been undertaken by the project, NRW (SNCB functions) agree with the finding of no significant effects.

J: Requirement for EIA

25. This project was screened into requiring an EIA under Annex II paragraphs 1(g), 2(c), 10(e) and 10(k) of the Marine Works (Environmental Impact Assessment) 2007 Regulations (amended 2011), and therefore an EIA was carried out and submitted with this application.

MLT comments: noted

K: Summary

26. Based on my assessment of this application I believe that the results of the chemical analysis and some further information for the EIA are still required (as detailed in the paragraphs above) before a decision can be made on this application. Following the provision of this information, should a favourable decision be made on this application I would recommend the following conditions are placed on the licence. Please note that further conditions may also be required following the assessment of the chemical analysis of the material to be dredged.

MLT comments: Further information has been included as required which has resolved the concerns for further information for the EIA. Samples analysis by Cefas has not been undertaken, the environmental risk has been mitigated by a condition that the capital dredged area and the deposit of the maintenance dredged arisings will not be permitted until samples have been analysed and this aspect of the works approved by NRW acting on behalf of the licensing authority.

MCA Comments

"The proposal has been examined by staff of the Navigation Safety Branch and it can be noted that the works are unlikely to have an adverse impact, with regards to safety of navigation, they have recommended a number of conditions.

MLT comments: Recommended conditions have been included that are considered suitable by the MLT. The below condition have not been included:

1. The Consent Holder should ensure appropriate steps are taken to minimise damage to the beach/foreshore/river bank/seabed by the works.

2. The Licence Holder must ensure must ensure that the best method of practice is used to minimise re-suspsension of sediment during these works.

MLT: Condition1 has not been included as dredging the sea bed will remove and 'damage' the sea bed. MLT does not consider this condition appropriate in this case. Condition 2 not been included due to the nature of the works.

TH Comments

Trinity House have no objections to the proposals for the Welsh National Sailing Academy at Pwllheli, as detailed.

Confirm no marking requirements for current proposals.

MLT Comments: Noted

RYA Comments

Our consultees are fully supportive of this application.

MLT comments: Noted

TCE Comments

The Crown Estate is affected by the proposed works and landowner's consent is required. The Crown Estate is already in contact the applicant regarding consent.

MLT comments: Noted

MEO Comments

"Marine environment

The proposed works lie within the Pen Llŷn a'r Sarnau Special Area of Conservation (SAC). I do not expect the works to have a significant long term impact on the site.

Works Interference with other users of the sea

There will be minimal impact on other sea users as activity within the area of operation is generally confined to marina berth holders and a small number of swinging mooring users within the Inner Harbour.

Navigation

There will be little impact on general navigation. Navigation in this area is currently confined to marina berth holders, a few swinging mooring users and Pwllheli Sailing Club Rigid Hulled Inflatable Boats (RIBs) accessing the verso dock. The use of a floating pipeline to transfer dredged materials from the small cutter suction dredger across the navigable channel to the reclamation land area

will present a hazard to the above vessels only.

Fish and Shellfish Seasonality

There is an all year round presence of bass *(Dicentrarchus labrax),* and a resident population of grey mullet *(Chelon labrosus)* within the Inner Harbour (Marina area) and the Outer Harbour. During the late spring and summer, visiting black seabream *(Spondyliosoma cantharus)* appear together with the occasional mackerel *(Scomber scombrus)* shoal. I do not anticipate that the proposed work will have a long term effect on these species.

Proposal Awareness and Other Advice

None.

Additional Comments

None.

Licensing Conditions

5 days' notification.

Marine Licensing Team Comments. *The representation from the MEO highlights potential to impact other legitimate users and risk to fish species, both are described to be of minimal impact and short term duration. Response from the RYA was supportive of the project and no public representations were received, therefore the MLT consider that this development will not detrimentally effect recreational users. Fish species have also been discussed in responses from NRW advisory and Cefas – mitigation measures have been proposed where appropriate, for further details please view the comments raised by NRW and Cefas sections of this EIA consent Decision. The recommended condition of notification has been recommended for inclusion, this is agreed by the MLT.*

The following bodies were consulted but did not respond, these consultees are assumed to have no comments, Cadw, RSPB, MoD, Local Biodiversity Officer and Local Harbour Authority. However, it should be noted that the Local Harbour Authority is part of the application and the Local Biodiversity Officer has corresponded with NRW advisory in the formation of NRW advisory comments.

Conditions

Following consideration of all relevant information, including the ES and the outcome of the consultations, the Marine Licensing Team considers that the following conditions must be included in any licence granted for this project:

- The documents referred to in paragraph 3 shall be available at all reasonable times for inspection by appropriately authorised officers of NRW and/or authorised Marine Enforcement Officers at the locations stated in that paragraph.

- The Licence Holder must advise NRW acting on behalf of the Licensing Authority and authorised Marine Enforcement Officers 10 days before the licensed operation, or an individual phase of the operation is expected to commence and upon completion of the works.

- The Licence Holder must allow officers of the Maritime and Coastguard Agency, Welsh Government Marine Enforcement Officer or any other person authorised by NRW acting on behalf of the Licensing Authority to inspect the works at any reasonable time.

- The Licence Holder must ensure that the capital dredge aspect of the work do not take place until the sediment samples have been analysed and approved in writing by the NRW acting on behalf of the licensing authority.

- The Licence Holder must ensure that the no dredged arisings are deposited within the land reclamation area, as defined in condition 1.5 or as back filling within the quay wall construction until the sediment samples have been analysed and approved in writing by the NRW acting on behalf of the licensing authority.

- The Licence Holder must submit a marine pollution contingency plan to the Licensing Authority at least 4 weeks prior to the commencement of the works. Works may not commence until the plan has been approved.

- The Licence Holder must submit a programme for regular monitoring of water quality and visual inspection of the de-watering facilities of the reclamation area for approval to NRW acting on behalf of the licensing authority at least 4 weeks prior to works commencing. The monitoring programme should also identify methods of mitigation in the instance that target sediment loading is exceeded.

- The Licence Holder must submit a biosecurity risk assessment (including details of 'easy clean' pontoon design and future marina code of practice) to NRW acting on behalf of the licensing authority for approval at least 4 weeks prior to the commencement of works.

- The Licence Holder must submit a Construction Method Statement at least 4 weeks prior to works commencing, to NRW acting on behalf of the Licensing Authority for approval. The Construction Method Statement should provide full details of the dredging method, quay wall construction, and construction of the pontoons and bund.

- The Licence Holder must submit an Environmental Management Plan at least 4 weeks prior to works commencing, to NRW acting on behalf of the Licensing Authority for approval.

The Environmental Management Plan should summarise the environmental actions and any proposed monitoring.

- The Licence Holder must ensure a notice to mariners and fishermen's organisations is issued at least 10 days prior to works commencing.

- The Licence Holder must notify the UK Hydrographics Office of the timetable of works, at least 10 days prior to works commencing, to permit the promulgation of maritime safety information and updating of nautical charts and publications.

- The Licence Holder must install bunding and/or storage facilities to contain and prevent the release of fuel, oils, and chemicals associated with plant, refuelling and construction equipment, into the marine environment. i.e. secondary containment should be used with a capacity of not less than 110% of the containers storage capacity.

- The Licence Holder must ensure that the rock material used is free from contaminants, contains minimal fines and is from a recognised source.

- The Licence Holder must ensure that the amount of rock placed must be kept to a minimum and excess rock must be returned to land.

- The Licence Holder must ensure that any rock misplaced/lost below mean high water springs is reported to the Licensing Authority, Trinity House, Maritime and Coastguard Agency and the UK Hydrographics Office, within 48 hours and located and recovered.

- The Licence holder must ensure that no piling and/or capital dredging works extend into March 2014.

- The Licence Holder must ensure that if percussive piling is used, soft-start procedures are used to ensure incremental increase in pile power over a set time period until full operational power is achieved. The soft-start duration should be a period of not less than 20 minutes. Should piling cease for a period greater than 10 minutes, then the soft start procedure must be repeated.

- The Licence Holder must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas should be contained and sited at least 10 metres from any watercourse or surface water drain to minimise the risk of run off entering a watercourse.

- The Licence Holder must ensure that if concrete is to be sprayed in the vicinity of the marine environment suitable protective sheeting is provided to prevent rebounded or

windblown concrete from entering the water environment. Rebounded material must be cleared away before the sheeting is removed.

- The Licence holder must ensure that any coatings/treatments are suitable for use in the marine environment and are used in accordance with best environmental practice, (e.g. approved by HSE, EA Pollution Prevention Control Guidelines)

- The Licence Holder must ensure Environment Agency Pollution Prevention Guidelines – works and maintenance in or near water: PPG5 - are adhered to at all times. Any incidents should be reported immediately to the NRW acting on behalf of Licensing Authority via the marine licensing mailbox and to the incident hotline 0800 807060 providing, date, time, location, any mitigation already implemented and a contact name and phone number.

- The Licence Holder must ensure that during the works all wastes are stored in designated areas that are isolated from surface water drains, open water and bunded to contain any spillage.

- The Licence Holder must ensure the Environmental Protection (Duty of Care)Regulations 1991, for dealing with waste materials, is adhered to at all times for any off-site movements of wastes

- The Licence Holder must ensure the works are maintained at all times in good repair.

- The Licence Holder must ensure the works are removed from below mean high water springs, or such alterations made, within one month of notice being given by NRW acting on behalf of the Licensing Authority at any time we consider this necessary or advisable for the safety of navigation. Works must not be replaced without the written approval of NRW acting on behalf of the Licensing Authority. The Licence Holder will be liable for any expense occurred by NRW acting on behalf of the Licensing Authority.

- If, in the opinion of NRW acting on behalf of Licensing Authority, the assistance of a Government Department, including the broadcast of navigational warnings, is required in connection with the works, or to maintain the works in good order or from the drifting of wreck of the works, the Licence Holder shall be liable for any expense incurred in securing such assistance.

- The Licence Holder must ensure that any equipment, temporary structures, waste and/or debris associated with the works are removed on completion of the works.

Regulatory Evaluation and EIA consent decision

In considering the application for the development of the Welsh National Sailing Academy and Events Centre the following has been considered:

- The ES, including the mitigation measures proposed;
- The relevant provisions of Marine and Coastal Access Act 2009 and
- The representations received.

Through consideration of these, a full and detailed assessment has been made of the potential direct and indirect effects of the proposals on human beings, fauna and flora, soils, water, the landscape, material assets and the cultural heritage including any risk to the integrity of nearby sites of conservation importance.

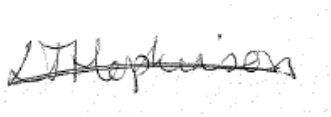
The Marine Licensing Team endorses the findings of the ES, subject to the inclusion in any licence issued of the conditions referred to above and compliance with them.

Accordingly, the Marine Licensing Team acting for and on behalf of the Licensing Authority, concludes that the project will not have a significant adverse effect on the environmental. As such, a favourable EIA consent decision can be issued to Gwynedd Council for marine works as part of the Welsh National Sailing Academy and Events Centre scheme.

Sign off

Produced by: Lisa Hopkinson – Marine Licensing Team

Signed:



Date: 19 November 2013

Approved by: Eleanor Smart – Marine Licensing Team Leader

Signed:

Date: 19 November 2013