



Department of  
**Agriculture, Environment  
and Rural Affairs**

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**Warrenpoint Harbour Authority**

**Proposal for a Dredged Material Disposal Site in Carlingford Lough**

**Site Characterisation Scoping Opinion**

**11<sup>th</sup> August 2017**

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## **1. Background**

- 1.1 Warrenpoint Harbour Authority (WHA) is proposing to create a new disposal site in Carlingford Lough, which will receive material dredged from within Warrenpoint Harbour. WHA is currently considering two locations within the Lough.
- 1.2 Marine and Fisheries Division has provided WHA with a negative Screening Opinion under the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended). However, WHA is still required to undergo a full site characterisation exercise, which will follow a similar process to that of an EIA project.
- 1.3 A 'Site Characterisation Scoping Report' has been provided by WHA, outlining what the Port intends to include in the scope of the site characterisation exercise. Marine and Fisheries Division has carried out a consultation exercise and considered the responses received. The aim of this report is to therefore provide a non-statutory Scoping Opinion to WHA and to ensure the final Site Characterisation report contains the information that must be provided to the Department in order for a full assessment to be made of the proposal.

## **2. Description of Proposal and Location**

- 2.1 The following is a description based on information provided by the applicant:

### **Proposal**

- 2.2 WHA is seeking to locate a new disposal site in Carlingford Lough, which will receive material dredged from within the harbour limits. Their aim is to reduce costs and delays associated with their existing dredging operations and to increase and maintain and improve navigation standards.
- 2.3 WHA currently hires external dredging contractors to carry out major dredging campaigns every 5-6 years, which they observe is a costly operation. In-between campaigns, the harbour operates in a restrictive manner due to increased siltation, which in turn affects trade. At the moment, the material dredged from the harbour is disposed of in a designated disposal site, located approximately 11 km from the entrance of Carlingford Lough.
- 2.4 WHA is therefore exploring the option of investing in an in-house dredger, which would be able to dredge on a more regular basis. However, in order to make this a viable option, the Port would require a disposal site closer to the harbour, in a less exposed location. The Port is currently considering two potential sites: one between Greencastle and Cranfield Point and one between Killowen Bank and Carlingford Bank.
- 2.5 To support WHA's proposal, a Site Selection and Characterisation Report must be provided to Marine and Fisheries Division, to allow the Department to consider whether the proposal is likely to result in environmental impacts. As part of this process, WHA has produced a Site Characterisation Scoping Report, outlining what topics will be scoped in and out of the final Site Selection and Characterisation Report.

### **3. Legal and policy framework**

3.1 The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)\* apply to projects that require a marine licence under Part 4 of the Marine and Coastal Access Act 2009. Having carried out a screening consultation under the Marine Works Regulations, Marine and Fisheries Division considers that the designation of a new disposal site is not an activity specified under either Annex I or II of the EIA Directive (Council Directive 2014/52/EU) and therefore the proposal does not require an EIA.

3.2 However, the Department must ensure that the designation of a new disposal site adheres to the principles set out under the OSPAR Convention 1992 and London Convention 1972, to which the UK is a contracting party. The principle factors to be considered when selecting a disposal site are listed in Annex III parts B and C of the London Convention 1972. These have been further refined in the Waste Specific Guidelines that supplement Annex 2 of the 1996 Protocol.

3.3 Updated guidance has been provided by the OSPAR Commission in 2014, on the management of dredged material at sea. This guidance has been written in accordance with the London Convention and Protocol Revised Specific Guidelines for Assessment of Dredged Material. The UK, as a contracting party, must take these guidelines into consideration in the regulation of dredged material at sea. This document also includes updated guidance on new disposal/deposit sites, which Marine and Fisheries Division must take into consideration to comply with the requirements of the Convention and ensure protection of the marine environment.

### **4. Site Characterisation Scoping Report**

4.1 WHA provided a site characterisation scoping report to the Department in April 2017. The following topics were scoped out of the Site Characterisation Report:

- Shipping lanes and anchorages
- Renewable energy sites
- Marine aggregate extraction areas
- Military exclusion zones
- Terrestrial ecology and ornithology
- Landscape and visual amenity

The following topics have been scoped into the Characterisation Report:

- Dredged material characteristics;
- Geology and morphology;
- Coastal Processes;
- Water and sediment quality;
- Designated conservation sites;
- Marine ecology;
- Ornithology;
- Marine Mammals;
- Commercial and recreational fisheries;
- Maritime archaeology;
- Commercial navigation and

- Recreational activity

4.2 A 28 day consultation exercise took place with the consultation bodies listed below. The responses received from the consultation exercise are included as Annex One.

- The Crown Estate
- The Maritime and Coastguard Agency
- The Commissioner of Irish Lights
- DAERA Marine & Fisheries Division
- Agri-Food and Biosciences Institute
- Northern Ireland Environment Agency
- Council for Nature Conservation and the Countryside
- Ulster Wildlife
- Royal Society for the Protection of Birds
- UK Hydrographic Office
- UK Chamber of Shipping
- The Loughs Agency
- Department for Infrastructure - Sea and Ports
- Department for Infrastructure – Roads
- National Trust
- Carlingford Sailing Club
- Carlingford Yacht Club
- RYA
- Carlingford Marina Enterprises Ltd

Republic of Ireland consultees:

- Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs (ROI)
- Department of Housing, Planning, Communications and Local Government (Marine, Planning and Foreshore) (ROI)
- Department of Agriculture, Food and the Marine
- Department of Foreign Affairs and Trade
- Environmental Protection Agency
- Inland Fisheries Ireland
- Louth County Council
- Greenore Port
- Bord Iascaigh Mhara

4.3 Under Union legislation such as the Birds Directive, the Habitats Directive and the OSPAR Convention, to which the UK Government is a signatory, the Department is obliged to ensure that the Republic of Ireland Government, local authorities, other interested parties and the public are notified and consulted on any project that may have a trans-boundary environmental impact. In addition, the Department must also duly consider any representation made in respect of the trans-boundary project. Marine and Fisheries Division have consulted with the Republic of Ireland Government and Louth County Council since the inception of this project and will continue to do so. WHA must also ensure a fully advertised public consultation takes place during the final stages of this project, to allow the public an opportunity to make any representation.

## **5. Site Characterisation Scoping Opinion**

5.1 In reaching a scoping opinion, Marine and Fisheries Division will consider:

- (a) the specific characteristics of the project;
- (b) the nature and purpose of regulated activities of the type concerned in the project;
- (c) the environmental features likely to be affected by the project; and
- (d) the extent to which the applicant may reasonably be required to compile information having regard, inter alia, to current knowledge and methods of assessment.

5.2 Marine and Fisheries Division recommends that the following topics are included the Site Selection and Characterisation Report:

### **Dredged material characteristics**

Marine and Fisheries Division acknowledges that there have been a number of sampling regimes carried out by WHA during the preceding years of marine licence applications. WHA now considers that no additional sampling is required for the Site Characterisation Report. Marine and Fisheries Division request that further sediment sampling is carried out due to the fact the sampling was originally carried out in 2015 and will therefore be out of date in 2018. In addition, the material has previously had sediment results above Action Level One and while the disposal site outside the Lough can receive such material, Marine and Fisheries Division will take an even more precautionary approach to disposing of material within the Lough. Site Characterisation report must consider physical, chemical and biological characteristics of the material to be disposed at sea, as set out in the 2014 OSPAR Guidelines for the management of dredged material at sea. Consideration should also be given to chemical or biochemical changes that contaminants may undergo when deposited at sea.

### **Geology and Morphology**

Marine and Fisheries Division has no further comment to offer at this stage and is content that geology and morphology are part of the scope of the report.

### **Coastal Processes**

Marine and Fisheries Division agrees with the details included on coastal processes and also agrees that it should be scoped into the final report to assess the potential impact of transported material by wave and tidal action and residual current movements

### **Water and Sediment Quality**

The water and sediment quality impacts should also look at further afield effects in the water column and on the seabed as well as plumes in the water column relating to the disposal operation. The hydrodynamic model should allow for suspension of sediment due to current and wave action. Existing sediment flow patterns in the Lough should be established before modelling the likely sedimentation effects of the new disposal site.

An assessment should be made of sedimentation rate (kg/M2 and actual accumulated depth in mm) at aquaculture sites throughout the Lough in order that there is some degree of confidence on the sediment depth accumulation of various spoil fractions likely to result.

Maps of modelled sediment deposition should be overlaid with important commercial and recreational fishing grounds, including known or suspected spawning and nursery grounds, licensed aquaculture sites, pot fishing sites and benthic habitats and species.

### **Designated Conservation Sites**

Both of the proposed sites are within the new Carlingford Lough marine SPA extension. The Designated Conservation Sites assessment must also include an assessment of the direct impact of the deposit of dredged material on the European site. In addition to this being assessed in the site characterisation report, it should also be included in the HRA.

Carlingford Lough has been designated as a Marine Conservation Zone (MCZ) for the habitat *Philine aperta* and *Virgularia mirabilis* in soft stable infralittoral mud. *Philine aperta* and *Virgularia mirabilis* communities have low vulnerability to organic enrichment, overall abrasion (surface and subsurface), siltation rate changes and removal of non-target species. The MCZ feature is moderately vulnerable to de-oxygenation, physical loss (to land or freshwater habitat) and habitat structure changes. A MCZ assessment for the Carlingford Lough MCZ, should also be scoped into the final Site Characterisation Report.

Carlingford Lough has also been designated as an Area of Special Scientific Interest, an ASSI assessment should also be scoped into the final report.

### **Marine Ecology**

The Marine Ecology section of the final report should include a full characterisation of the biological communities present at the sites selected. The proposed grab sampling is not adequate to provide this information and therefore WHA should also carry out a towed video sledge or ROV in order to map the spatial distribution of biotopes within the selected sites. If the site is dominated by soft sediments, follow up grab sampling would be required. The methodology for the survey scope should be agreed with DAERA beforehand.

Also, as marine priority species have been noted in Carlingford Lough, an assessment of any potential impact of the deposit of dredged material on priority marine species should be included in the final report.

### **Ornithology**

While the principle ornithological issues have been identified to be assessed and included in the final report, care should be taken in interpretation of the WeBS data cited in the scoping report. There are data gaps in the WeBS data from 2010 onwards, either spatially or temporally, in the September to March period. Also, the WeBS data will not provide sufficient information on use of the proposed sites by the birds offshore and the most relevant and up to date information should be used for any assessment. If there are gaps in the data on usage of the areas by birds offshore, dedicated boat based surveys should be carried out to quantify usage of the sites in the offshore areas of the Lough.

Marine and Fisheries Division notes there is the potential for disturbance to nesting Terns on Green Island by close moving vessels and also low lying nests being flooded by wash from vessels. The impact of the movement of vessels, and in-combination from existing ship movement and the Greencastle to Greenore ferry, should be included in any final assessment.

In addition, as the area around Green Island has been identified as important foraging ground for Terns, an assessment should also be made of the potential impact on prey species of Terns from the deposit of dredged material in the 'eastern' disposal site at Green Island.

### **Marine Mammals**

Marine and Fisheries Division considers that an assessment of potential effects on marine mammal prey species should also be included in the final report.

### **Commercial and Recreational Fisheries**

Carlingford Lough is important for shellfish aquaculture and pot fishing. Cultivation of Blue (Edible) mussel (*Mytilus edulis*) and the Pacific oyster (*Crassostrea gigas*) is an expanding industry and, along with Edible crab (*Cancer pagurus*) and European lobster (*Homarus gammarus*) potting, these products are exported primarily to the European market. The proposed disposal sites are in close proximity to a number of licensed aquaculture sites. In addition, recreationally important species are present within the Lough including pollock, ray, sea trout, mackerel, dogfish and spurdog.

The proposed disposal sites are within the vicinity of commercial aquaculture sites which are licensed by DAERA. These sites are located within a Shellfish Water Protected Area (SWPA) which is designated under the EU Water Framework Directive (WFD). All SWPA's are assigned water quality objectives under the River Basin Management Plans. The Food Standards Agency also classifies each harvesting area individually under the EU Hygiene Regulations for levels of *E. coli* present in the flesh of the shellfish product. This determines the level of post-harvesting treatment required before placing shellfish product on the market for human consumption and can have an economic impact on the business operators. The current WFD status for Carlingford Lough is "moderate". The 2021 objective is to meet "moderate" status and the 2027 objective is to meet "Good" status. In addition to this, all harvesting areas must meet at least Class B hygiene status under the EU Hygiene Regulations and there should be no deterioration in WFD status or hygiene class. There is the potential for a number of effects on the aquaculture sites, from the deposit and potential dispersion of sediment within the Lough. This should include an assessment of pollutant dispersion (sediment transport as well as cumulative chemical and microbiological dispersion and uptake by live bivalve molluscs) from the proposed deposit site. An assessment should also be made of all the potential impacts upon the aquaculture sites and also recreational fishing within the Lough. This should not only include direct environmental impact on the stocks but consider indirect effects such as economic impacts on the commercial aquaculture and fishing industries.

Consultation should also take place with the fishing industry, to include both recreational fishing and commercial aquaculture, to ensure the industry is fully informed about the proposal and have an opportunity to discuss any concerns. The Department has received representation from several sections of the aquaculture industry and these are included in Appendix One.



In addition to recreation and commercial fisheries, Carlingford Lough has also been identified as an important site – and potentially pupping and nursery area – for elasmobranch species including basking shark, tope, thornback skate, cuckoo ray and spotted ray (<https://www.npws.ie/sites/default/files/publications/pdf/Red%20List%2011%20Sharks%20et%20al.pdf> and NIEA (2009) Position Statement on Sharks, Skates and Rays in Northern Ireland Waters)

Many of these species have been listed as ‘endangered’ or ‘vulnerable’ on the IUCN Red List. An assessment of the adverse effects on all elasmobranch species known to occur in the area, should be included in the final report. This should take into account the impact of dredge disposal on the reproductive ability of these species, as eggs laid in the sediment may be vulnerable to smothering.

### **Maritime Archaeology**

The multi-beam bathymetric survey data alone is not sufficient to characterise the proposed disposal sites. Non-intrusive geophysical surveys (side scan and magnetometer) should be undertaken to provide information on potential archaeological resources and to avoid any potential impact on said resources. Specifications for surveys should be drawn up with archaeological advice from the Department. Project specific geophysical survey data should be suitable for archaeological interpretation and must be assessed and reported on by a suitably competent archaeologist (see Plets *et al.*, (2013), [Marine Geophysics Data Acquisition, Processing and Interpretation, Guidance Notes](#)).

### **Commercial Navigation**

In addition to Warrenpoint, Greenore Port is a relatively small commercial port, present within the Lough. Greenore Port provided a response to the scoping consultation exercise, which is included in Appendix One. The primary concern of the Port relates to the potential impact on their shipping operations and ship navigation alongside their berth and in the approach channel. Greenore Port is concerned that the deposit of material within the Lough may have impacts on their navigation and man-made sea defence infrastructure, which runs parallel to the commercial berth.

The final report should therefore include an assessment of likely navigational hazards, which might be caused as a result of the change an internal dumping ground may make, and this would include any potential impacts on Greenore Port and its infrastructure.

This assessment should include, among other things, reductions in underkeel clearance, displacement of other marine traffic, identification of any new navigation hazards etc. as a result of the proposed new disposal site. Such assessments should be made for both proposed sites. This assessment should also include any potential navigational safety impacts on the Greenore to Greencastle ferry route.

### **Recreational Activities**

Marine and Fisheries Division notes that Carlingford Lough is popular for recreational boating and sailing with three marinas, several anchorage areas, visitors mooring and two sailing clubs. Water sports are popular in the Lough and include windsurfing schools, kayaking, canoeing and scuba diving.

There are also three marinas in the Lough close to the MCZ: Carlingford Marina (location of Carlingford Sailing Club), Warrenpoint Marina and Killowen point quay (Carlingford Lough Yacht Club).

Carlingford Marina and Carlingford Sailing Club provided responses to the recent scoping report consultation. These responses are included in Appendix One. It has been highlighted in these responses that the proposal to open a new site may affect the safety or viability of recreational boat activities in the Lough through increased siltation. Therefore potential impacts on recreational boat activities should also be assessed in the final report. Marine and Fisheries Division would also recommend that the potential impact on the area's boat based tourism and economy are also considered in the final assessment and assessed where appropriate.

### **In-combination and Cumulative Impacts**

In-combination and cumulative effects through time need to be considered thoroughly in the Site Selection and Characterisation Report, especially as disposal of dredged material has not previously taken place within Carlingford Lough.

## **6. Conclusions**

6.1 The topics highlighted in this Scoping Opinion should be included in the final Site Selection and Characterisation Report. The topics listed in this Opinion are not exhaustive and other issues may arise, which also require an assessment. In addition, the final Site Characterisation Report should also consider alternatives to opening a new disposal site in the Lough, in addition to examining the topics outlined in this Scoping Opinion.

## **Appendix One**

### **Consultation Responses to Warrenpoint Harbour Site Characterisation Exercise**

#### **Maritime and Coastguard Agency**

From the MCA perspective, the Site Characterisation Scoping Exercise should include an assessment of likely navigational hazards which might be caused as a result of the change to an internal dumping ground, to include amongst other things, reductions in underkeel clearance, displacement of other marine traffic, identification of any new navigation hazards etc as a result of the proposed new spoil ground. Such assessments should be made for both proposed locations.

#### **Bathing and Shellfish Waters team – Marine and Fisheries Division**

Content with the proposed site characterisation assessment with regards to Carlingford SWPA

#### **The Crown Estate**

##### **General Comments**

The Crown Estate welcomes the opportunity to respond to the Department of Agriculture, Environment and Rural Affairs (DAERA) on the proposed new disposal sites - site characterisation scoping exercise and has taken the opportunity to provide information within this response on existing and planned developments that are considered as critical social economic activities. Whilst we take a facilitatory role, and can provide details for any of the customers we reference below, we would welcome your proactive engagement with all sectors that may be impacted on by the proposed new disposal site.

##### **Introduction**

This response is informed by The Crown Estate's experience of managing activities within the marine environment and, within its core remit, of balancing economic activity with stewardship of natural resources for future generations to use and enjoy. Our responsibility for the Rural & Coastal and Energy, Minerals & Infrastructure (EMI) portfolios comprise virtually the entire UK seabed out to the 12 nautical mile territorial limit, in addition to the sovereign rights to explore and make use of the natural resources of the UK continental shelf, with the exception of oil, coal and gas. We also manage around half of the foreshore and beds of estuaries and tidal rivers in the United Kingdom. The Crown Estate's management responsibilities in Northern Ireland are diverse and cover a number of business sectors. These include wave and tidal energy developments, aggregate dredging and cables and pipelines. Our coastal activities are wide ranging and mainly

comprise the leasing and licensing of land and coastal management, outfalls, aquaculture, moorings, jetties and other infrastructure.

In managing our Northern Ireland estates we aim to work in partnership with government and local communities for mutual benefit. We have built good working relationships with the Northern Ireland Assembly, local councils, communities and our own customers and we welcome the opportunity to contribute data, information and expertise into the site characterisation scoping exercise.

The Crown Estate has no comment about the scientific justification for reviewing the site for the proposed new disposal sites and we have focused our response on our area of expertise as set out in the introduction. With regards to additional information we can provide related to socio-economic interactions, we have the following comments:

### **Coastal Interests**

With regards to additional information we have attached a plan showing the current third party interests granted from The Crown Estate, of which contact details can be provided on request. However for the scoping report we can summarise the socio-economic interactions within our coastal interests, as follows:

- There are currently 12 shellfish cultivation sites in operation
- 3 shellfish cultivation sites pending agreement
- A number of fixed moorings
- Ferry terminal development works
- Foreshore regulating leases
- Various recreational slipways
- Outfalls

### **Marine Minerals/Aggregates interests:**

1. There is one closed/disused disposal site to the centre of Carlingford Lough

- **Conclusion**

We trust that you will find these comments constructive. We would be very willing to provide additional information on any of the points we have raised above and be very pleased to discuss these matters with you further. We are ready to engage in further discussions on these and other points relevant to our ownership or on which our expertise may be brought to bear.

## 1. NIEA – Ornithology Response

- Carlingford Lough has been designated as a Special Protection Area under the EU Birds Directive because of its internationally important wintering population of Light-bellied Brent Geese and breeding populations of Common Terns and Sandwich Terns. The Carlingford Lough Area of Special Scientific Interest also holds nationally significant numbers of wintering Great Crested Grebe, Shelduck, Scaup, Red-breasted Merganser, Oystercatcher, Dunlin and Redshank.
- The proposed dredging site lies outside the boundary of the Carlingford Lough SPA and the area is relatively unimportant for any of the feature species. The harbour is also located adjacent to, but outside the ASSI. Both proposed disposal sites are, however, located within the recent marine extension to the SPA and therefore may have an impact upon selection features of this site.
- The Harbour Authority has produced a Site Characterisation Scoping Report which aims to identify potentially significant environmental issues at the proposed dredged material disposal sites. While CS is satisfied that the principal ornithological concerns (disturbance, pollution, hydrology) have been identified we feel that there is a need to emphasise a small number of points.
- It is proposed that data from the Wetland Bird Survey (WeBS) is used to assess the significance of potentially impacted wintering waterbird populations. In considering populations within Carlingford Lough as a whole, it should be noted that WeBS coverage of the Lough has been incomplete in a number of years since 2010, either spatially or temporally within the standard September – March survey period. Care is therefore needed in interpreting the data.
- WeBS is focussed on collecting data on birds using the intertidal zone or close inshore. Although some information on birds on the water further offshore may be included, this cannot be relied upon in quantifying usage by birds of offshore areas of the Lough. In the case of the disposal sites, these should ideally be assessed by dedicated boat-based surveys.
- The report appears to be dismissive of the potential impact of vessel movements, stating: *“Potential adverse effects on birds may include: disturbance from dredging vessels whilst sailing to and disposing at the site; reduced visibility for diving birds due to increased suspended sediment concentrations; and disturbance of feeding habitats for birds. These are not expected to be significant issues in an area of open water that is subject to regular vessel movements”*. CS has previously stated its concern regarding vessel operations associated with the eastern disposal site in proximity to Green Island which supports the only tern breeding colony in Carlingford Lough. There is potential for disturbance of nesting terns by vessel movements close to the island and a danger of low-lying nests being flooded

by wash from vessels. The impact of navigation associated with this project should be assessed in combination with that from existing shipping and the proposed Greencastle – Greenore ferry.

- The sea area around Green Island has also been identified as an important tern foraging area (Allen & Mellon 2015). Consequently, there is potentially a risk of degradation of feeding conditions through deterioration of water quality through increased turbidity affecting visibility, or through pollution or changes to benthic habitats arising from increased sedimentation affecting prey species. Given that any decline in prey availability close to the nesting site would result in energetic costs to terns from obtaining food from more distant sites, this could result in reduced breeding success. The potential impact on prey species of terns should be assessed

**Reference:**

Allen, D. & Mellon, C. (2015) *Validation of selected tern foraging areas associated with breeding colony SPAs*. Unpublished report to Northern Ireland Environment Agency, Allen and Mellon Environmental Ltd

## **2. Sea Fisheries – Marine and Fisheries Division**

DAERA Sea Fisheries Inspectorate have no issues with the site characterisation scoping exercise in relation to the proposed new disposal site within Carlingford Lough. However it is our departments remit to promote, develop, maintain and protect our fishing/aquaculture industry in a sustainable manor for future generations. While we empathize with the Harbour Authority on the cost they face to transport the spoil to the licensed spoil grounds we must protect the water quality for all the aquatic life within the Lough.

If water quality is maintained at current levels there is great potential for further aquaculture development in Carlingford Lough.

We would also like to point out to the applicant the value of our aquaculture sites on the northern side of Carlingford Lough: annual average of £1.8 million over the last three years and the wild fisheries within Carlingford Lough to be an annual average of £80k over the last three years. The proposed spoil site number 1 is only 1.2 kilometres from a licensed aquaculture site and site 2 is only 0.7 kilometres from a licensed aquaculture site and we feel this is much too close to our sites. If tide or wind direction are miscalculated while dispatching the spoil on the proposed sites it could lead to total devastation of these aquaculture sites through a large increase in sediment and possible toxic chemicals.

In addition to those comments, several of our Aquaculture Licensees in Carlingford Lough have expressed to me their objection to the WHA's plans.

Their concerns, which are not recorded in writing, centre on the impact of disposing spoil anywhere in the Lough but particularly anywhere near Mill Bay and the impact that this will have on their licensed sites.

We would ask that WHA engages directly with the owners of licensed aquaculture sites to hear at first hand their concerns.

### **3. Department of Agriculture, Food and Marine**

Aquaculture and Foreshore Management Division's (AFMD) response below, in conjunction with our technical advisors, relates to the potential impact of the proposed activity on licensed aquaculture on the southern side of the Lough and supplements the comments previously provided by BIM. Aquaculture in the Lough is an important economic activity. Oyster farming in particular has expanded in recent years in Carlingford Lough.

It is regrettable that a full EIA was not considered appropriate in this case. It is hoped that the requirement for a Site Characterisation Report may ultimately require a comprehensive and detailed level of impact assessment for this proposal which would be comparable to an EIA.

The attention given to aquaculture in section 5.15 of the Site Characterisation Scoping document does not appear to be particularly comprehensive — it seems to get brief mention only. This Division has major concerns about potential for impact of dredge spoil disposal on licensed aquaculture activity on the Co Louth side of the Lough.

The statement on page 6 section 5.15 that "these sites were avoided when selecting potential placement sites" may partly miss the point that aquaculture sites some distance from the placement point may yet be significantly impacted on. If sites were to be truly "avoided" then a placement site much further outside the Lough (similar perhaps to that used at present) might have been chosen and would seem to be, in principle, a more appropriate choice. The placement sites selected for consideration seem, on first inspection at least, to be located quite close to active shellfish farm areas — they are within 1.6km of licensed oyster culture sites and within 350m of licensed mussel sites on the Co Louth side of Bay and AFMD is concerned that there could well be a significant impact on these shellfish farm sites due to the introduction of new dredge spoil disposal activity within the Lough area or at its mouth. There may be SS / turbidity effects on growth and in addition, sedimentation may occur at the aquaculture sites. AFMD is concerned that sediment release in the inner Lough area may have long term effects as well as short term impacts on shellfish farm activity in the Lough. Surface layer modification and substrate change may, for example, be a long term impact. Besides suspended solids and sedimentation effects there is also the question of pollutants and toxins being released into the water column and these being made more bioavailable than heretofore within the Lough due to the proposed spoil disposal operations.

There have been suggestions made by shellfish farmers in the Bay that dredging operations in the past resulted in significant sedimentation creating a soft surface layer on the shore which made the substrate less suitable for aquaculture vehicles and for supporting trestle structures. Anecdotally at least there is a view that dumping of dredge spoil may have had adverse effects on surface substrate on the intertidal and sub tidal areas of the Bay (including east of Greenore). It would be most unwelcome from an aquaculture perspective were such impacts to occur due to selection of a new disposal site in the future.

Numerical modelling would need to look at farther afield effects in the water column and on the seabed as well as plumes in the water column relating to the dumping operation at the dump site. The hydrodynamic model would, AFMD suggest, need to allow for re-suspension of sediment due to current *and* wave action. Settling velocity variations with spoil fractions and variation with tidal stage would, for example, need to be allowed for. It would seem important to establish existing sediment flow patterns in the Lough before superimposing the likely sedimentation effects of the proposed new spoil disposal operation.

It is essential that there be a rigorous assessment of sedimentation rates (kg/M<sup>2</sup> and actual accumulated depth in mm) at aquaculture sites throughout the Lough in order that there be some degree of confidence on the sediment depth accumulation of various spoil fractions likely to result

The Marine Institute has noted that the applicants have stated in the Scoping report that two sites are being considered but that *"it is likely that only one site will be brought forward to the full Characterisation report due to the costs associated with surveying and assessing two sites. This will depend on the outcome of the Scoping stage"*. It is the view of the MI, that since two potential sites have been identified, both sites should be fully considered as part of the Site Characterisation exercise, or at a minimum, the criteria used to select a single site only should be fully described and the reasons for the selection of the "favoured" site should be presented in the report.

Inshore Fisheries Unit:



The tidal flow at the mouth of Carlingford from Balagan to Greenore is significant and any dumping within the bay would require close supervision in order to avoid mixing.

Balagan, at the mouth of Carlingford is also an A classified production area for oysters and for Razor clams. All aside, the inner part of Carlingford Lough is B classified for mussels.

There are a significant number of licensed aquaculture sites in proximity to the proposed sites which produce shellfish likely to be affected by sediment and potential toxicity if the dredge material is contaminated.

In view of the proposal to select new sites for the dredge disposal and having regard to the potential transboundary environmental impacts, including water quality and human health, Environmental Impact Assessment should be undertaken

#### **4. NIEA – Earth Science**

I have read through the Warrenpoint In Lough Placement - Scoping Report, and can see not threat to sites of Earth Science importance. My key area of concern would be sediment build-up on Carboniferous rock exposures between Cranfield Point and Greencastle, however, I doubt this would become an issue, and as long as the surveying and monitoring described in the scoping exercise document are carried out.

#### **5. Marine Conservation Team – Marine and Fisheries Division**

MCR have reviewed the consultation documents for the above application. The proposal is to take place within a European site and within close proximity to national and international designated sites:

- Carlingford Lough ASSI, which is designated for bird species, coastal saltmarsh, mudflats and earth science features. ASSIs are declared under the Environment Order (Northern Ireland) 2002;
- Carlingford Lough MCZ which is designated under the Marine Act (Northern Ireland) 2013;
- Carlingford Lough SPA which is designated under the EC Birds Directive (79/409/EEC on the conservation of wild birds); and
- Carlingford Lough Ramsar Site which is designated under the Ramsar Convention.

While site 1 and site 2 are 500-700m from the ASSI and Ramsar site, both sites are within the SPA. Carlingford Lough SPA has recently been extended to include this marine environment.

Consequently the information in section 9.2.5 (Designated Conservation Sites) is not current. As stated above due to the marine extension to Carlingford Lough SPA, both sites are within the SPA. Deposition of dredged material is therefore going to have a direct impact on this European site. In addition to being addressed in the site characterisation report, the impact of this will also need to be assessed in the HRA.

MCR have also concern about section 9.2.6 on Marine Ecology. A quick search of Priority Marine Features revealed records of Lesser Spotted dogfish, Virgularia and Philine biotope within 400m of Site 2 (inner site) & Records of Caryophyllia smithii (cup coral), Leptasterias muelleri (starfish), Homarus gamarus (European lobster), Cuthona concinna (nudibranc), Munida rugosa (Squat lobster) & Lesser spotted dogfish all within 600m of Site 1. Records from 2007-2011. This is contrary to 9.2.6 which states that *"there are no known benthic species of conservation interest in or surrounding the proposed placement sites"*.

MNCR is not content that the proposed methodology for surveying the 'placement site' is restricted to sampling with a day grab. The use of the day grab assumes the site is sedimentary in nature when it is possible that bedrock/reefs may be present. The site should initially be surveyed using a towed video sled or ROV in order to map the spatial distribution of biotopes within the placement area. If the site is dominated by soft sediments a follow-up day grab type survey would be required.

The report does state that the survey scope will be agreed with DAERA.

MCR have no further topics they wish to be included in the scoping report

## 6. RSPB

### Data Requests

RSPB data can be requested using the link:

<http://www.rspb.org.uk/our-work/conservation/conservation-and-sustainability/gis/datarequests.aspx>

where access to other data sources can also be found such as the National Biodiversity Network Gateway (NBN) and the British Trust for Ornithology (BTO) through our website.

### Designated Sites

RSPB NI note that the Site Characterisation Scoping Report does not include the Carlingford Lough proposed marine extension Special Protection Area (SPA) within the "Designated Conservation Sites" section4. We recommend that all designated sites are considered within the Site Characterisation Report including Carlingford Lough proposed marine SPA. Consideration of this designated site is particularly important as both proposed disposal sites lie within this proposed SPA and inclusion of this site within the assessment is needed to fully inform the Habitats Regulations Assessment (HRA).

### Ornithology

RSPB NI are disappointed that the applicant has not proposed any bird surveys for this application. We would, at a minimum, strongly recommend that vantage point (VP) surveys are carried out to enable to applicants to accurately describe the likely significant effects of the development on local bird populations, including qualifying species of the Carlingford Lough SPA and proposed marine SPA and the Carlingford Lough Area of Special Scientific Interest (ASSI). These surveys should conform to Scottish Natural Heritage (SNH) guidelines: <http://www.snh.gov.uk/docs/C278917.pdf> and target birds that may be using the proposed sites for foraging. The surveys should cover not only the development site but also areas near

the site that may be affected, either directly or indirectly, by the development. These surveys can be used to inform any impact on foraging bird species. We would recommend at least one full year of VP survey should be carried out to assess the use of the proposed sites by breeding and wintering bird species, particularly those that are qualifying species of the nearby designated sites. RSPB NI can be contacted to give further advice on this matter, if required.

### **Analysis**

The Site Characterisation Report must provide an assessment of the possible impacts of the development on the interests described by the surveys. These possible impacts should include *inter alia* direct impacts, effects due to disturbance and indirect impacts. Possible impacts could include, but are not limited to:

- Disturbance on birdlife, both breeding and wintering
- Displacement of birds from areas of feeding
- Displacement of bird prey species from areas of feeding
- Temporary or permanent habitat loss or change
- Pollution
- Siltation
- Indirect habitat loss through small-scale changes in sediment structure
- Degradation of the quality of the surrounding marine environment
- Noise
- Increased erosion to Green Island due to wash from vessels

Please do not hesitate to contact the Assistant Conservation Officer with any related queries

## **7. Carlingford Sailing Club**

Carlingford Sailing Club has been giving a copy of the report and we would like to highlight some of our concerns in the Proposed New Disposal Site.

- Carlingford Sailing Club along with others clubs, organisations and commercial business use the Lough for recreational and business purposes and endeavour to protect and ensure the quality of water, access and use of the lough for everyone who uses it and everyone who lives around the entire Lough.
- Carlingford Lough represents important part of our Aqua culture in Ireland we need to protect that culture and also ensuring existing businesses on the lough as well as Warrenpoint harbour are protected and that sea life is also protected.
- Carlingford Sailing Club would be concerned the proposal to dump materials at the area of the 18 Cardinal mark in the middle of the lough would cause a problem of silting in and around Carlingford Marina, Carlingford harbour and Carlingford Sailing Club.
- Carlingford lough is a tourism attraction by land but also be sea and we need to ensure that we protect and promote this tourism and protect the recreation on the lough.

Our members represent a vast numbers of sectors, communities and business and we the Committee will endeavour to work on their behalf. It is of that reason that we ask you to consider the points we have highlighted, we also ask that we are included in any upcoming consultations on this matter.

## 8. Greenore Port

Given the importance and location of Greenore Port with respect to this proposal and the potential impact on the operability of our Clients facility, we are disappointed that Warrenpoint Port did not consult directly with Doyle Shipping Group to discuss their proposal.

DSG own and operate Greenore Port, which is located in Co. Louth on the southern shore of Carlingford Lough. Greenore Port is Irelands only privately owned commercial port. It handles commodities including bulk animal feed, fertilizer, coal, steel, timber and general cargo. Greenore is classified as a "Port of Regional Significance" under Irelands National Ports Policy.

We have reviewed the Site Characterisation Scoping Report that has been prepared by Anthony D Bates Partnership on behalf of Warrenpoint Port dated April 2017 and our comments are contained under various headings below.

The current OSPAR Guidelines for the Management of Dredged Material at Sea (2014) should be adopted. These are intrinsically embedded in any dumping at sea licensing processes in the UK and Ireland. In selecting a suitable site for sea deposit the guidelines require that "the deposit of dredged material does not interfere with, or devalue, legitimate commercial and economic uses of the marine environment nor produce undesirable effects on vulnerable marine ecosystems or species".

The primary reason for Warrenpoint Port seeking a licence to dump dredged material within Carlingford Lough is economics. Page 5 of the Site Characterisation Scoping Report outlines six reasons why Warrenpoint Port is seeking to dump dredged material within Carlingford Lough. Five of these reasons relate to economics.

Our overriding opinion is that the proposed project is fundamentally flawed. Warrenpoint Port currently have a suitable licensed marine dump site outside Carlingford Lough which provides a suitable facility for the disposal of dredged material without impacting on the stakeholders and natural environment of Carlingford Lough.

The Site Characterisation Report states that a marine licence under the Marine & Coastal Access Act 2009 is required for the proposed project. This licence is granted under UK legislation only. Given that the ownership of Carlingford Lough is in dispute between the Republic of Ireland and the United Kingdom, it is our opinion that a permit under the Dumping at Sea Act 1996, administered by the Environmental Protection Agency is also required. In Section 5.1.3 of the Site Characterisation Scoping Report, it is recognised that "no formal boundary exists between Northern Ireland and the Republic of Ireland" while also stating that "the navigational channel deemed the unofficial boundary". The term "unofficial boundary" is not based on fact or legal agreement. In our opinion, as the Lough ownership is in dispute, a permit from the EPA is also required. Even if we were to accept (which we do not) the premise that the navigation channel represents an unofficial boundary, the sediment

dispersion from the material dumped on the northern side of the boundary would migrate in all directions, including to the southern side of the boundary. This again indicates that a permit from the EPA is required for the project, regardless of the dump site(s) location within the Lough.

As stated at the start of this letter, we are disappointed that Warrenpoint Port have not engaged directly with our Client regarding this project. We respectfully request that Warrenpoint Port now engage fully and constructively with DSG in relation to the proposed dump sites and Greenore Port.

The list of consultees identified and consulted with in the Site Characterisation Report is not complete and fails to recognise the relevant Republic of Ireland statutory consultees. Even if we were to accept (which we do not) the premise that the navigation channel represents an unofficial boundary, the stakeholders and the natural environment on the southern side of the boundary will potentially be impacted upon by the proposed dumping operations. It is imperative therefore that all relevant authorities with a statutory remit in the Republic of Ireland are consulted with in a comprehensive manner and where required, the necessary permits/approvals obtained from these authorities. These include, but are not limited to: The National Parks & Wildlife Service (NPWS), The Department of Housing, Planning & Local Government (Foreshore Unit), Louth County Council, the Environmental Protection Agency (EPA), Sea Fisheries Protection Authority (SFPA), Inland Fisheries Ireland, Department of Agriculture, Food & the Marine (DAFM) etc.

We respectfully request that these bodies are consulted with as part of the preparation of the Site Characterisation Report.

The primary concern of Greenore Port relates to the potential impact on their shipping operations and ship navigation both alongside their berth and in the approach channel. Greenore Port benefits from a manmade scour wall which runs parallel to the commercial berths. This wall helps to minimise localised silt deposition along the commercial berths. The construction of this wall was part of the original port development. In our opinion, it is likely that dumping of dredged material at either of the proposed dumpsites, but particularly Site 2, will result in significant volumes of silt being released into the water column. This would result in a net increase in suspended sediments within the Lough, in close proximity to the approach channel and DSG's berths. Based on the relatively shallow foreshore within the Lough and observed, recorded and modelled water movements, the Lough is considered to be relatively low energy. A low energy regime of this nature within a semi enclosed water body typically results in significant siltation. This is very obvious throughout Carlingford Lough. Our concern is that the dumping of significant volumes of silts/sediments at discrete points within the Lough will result in an increase in the rate of sedimentation in the approach channel and/or our client's port facility. To this end we respectfully request that the Site Characterisation Report for any "In Lough" dump sites include a full sedimentation model of the Lough to model the impacts of dumping operations.

The dumping of dredged material, possibly containing elevated levels of contaminants within the Lough will potentially have an impact on the marine environmental and ecology. While not a direct responsibility of Greenore Port, DSG work closely with Louth County Council and relevant stakeholders to ensure that their port operations (Including any required capital or maintenance dredging) is not injurious to the natural marine environment. Greenore Port utilises land based receptors for reuse and/or disposal of dredged materials wherever possible. If land based receptors were not available, it would be DSG's intention to seek to dump dredged materials in the open sea, outside of Carlingford Lough, to prevent re-siltation and environmental impacts.

In examining the Site Characterisation Report prepared on behalf of Warrenpoint Port, we conclude that the proposal to obtain a licence to dump dredged material from Warrenpoint Port to a location(s) within the Lough is purely economic. In our opinion, the proposal is fundamentally flawed as it does not appear to address a number of key issues including regulatory/statutory requirements or the marine environment. Furthermore, the lack of consultations with statutory bodies and key stakeholders, especially our client, is unacceptable.

Given that Warrenpoint Port have a licence for a dump site outside Carlingford Lough, in a more suitable location, the need for this application is questionable.

We respectfully request that our requirements, as outlined in the relevant sections above, are taken into account as part of the preparation of the Site Characterisation Report. Our Client will need to be fully assured that any "In Lough" dumping operations will not have a negative impact on their port infrastructure and navigation. We also request that our Client is consulted within a detailed and comprehensive manner prior to this licence process continuing.

## 9. Ulster Wildlife Response

We acknowledge that Ulster Wildlife's consultation response to the initial EIA Screening Report has been considered as part of this process. In addition to the areas identified within sections 9.2.5 (Designated Sites) and 9.2.9 (Aquaculture), we request that the following areas are scoped into the final Site Characterisation Report.

### *Designated Conservation Sites*

- The review and assessment of adverse effects should include the proposed marine extension to the Carlingford Lough SPA that was consulted on by DAERA in April 2016 <https://www.daera-ni.gov.uk/consultations/carlingford-lough-spa-renotification>.
- The summary table in Section 10 does not include a MCZ assessment for the Carlingford Lough MCZ (as mentioned within the report text); this assessment should be scoped into the final report.

### *Marine Ecology*

- A full assessment of the existing benthic and pelagic environment should be carried out. The proposed benthic ecological survey (grab samples alone) is not adequate to fully characterise the biological communities as it is likely to under-represent mobile epifauna. Additional survey techniques, such as drop-down camera, should be included.
- The scoping report only includes migratory fish (salmon, sea trout and eel). However, Carlingford Lough has been identified as an important site – and possible pupping and nursery area – for elasmobranch species, including basking shark, tope, thornback skate, cuckoo ray and spotted ray [see IUCN Ireland Red List No. 11 (Clarke et al. 2016 <https://www.npws.ie/sites/default/files/publications/pdf/Red%20List%2011%20Sharks%20et%20al.pdf> and NIEA (2009) Position Statement on Sharks, Skates and Rays in Northern Ireland Waters]. Many of these species are listed as 'endangered' or 'vulnerable' on the IUCN Red List. An assessment of the adverse effects on all elasmobranch species known to occur in the area should be included within the final report. This should take into account the

impact of dredge disposal on the reproductive ability of these species, as eggs laid in the sediment may be vulnerable to smothering.

#### *Marine Mammals*

- The scoping report states that small-scale placement of dredge material is unlikely to result in significant adverse effects on marine mammals, highlighting disturbance at haul out sites from the dredge vessel and potential effects to feeding behaviour through increased sediment concentrations. The potential effects on prey species for marine mammals should also be included in this assessment.

### **10. Marine Archaeology – Marine and Fisheries**

Overall we welcome the document's inclusion of cultural heritage as a potential environmental receptor inclusive of boat finds and shipwrecks, prehistoric archaeological remains and aircraft losses and the commitment to an archaeological appraisal and assessment of adverse effects being carried out. We agree that intrusive site investigations are not necessary at this stage; however, we do not feel the multibeam bathymetric survey data alone is sufficient to characterise the in-lough placement sites.

We strongly recommend that additional site-specific non-intrusive geophysical surveys (1. side-scan and 2. magnetometer) should be undertaken before a decision can be taken on potential licensing of individual in-lough placement sites in order to prevent any potential adverse impact to marine archaeological resources.

Specifications for surveys should be drawn up with archaeological advice. Project specific geophysical survey data should be suitable for archaeological interpretation and must be assessed and reported on by a suitably competent archaeologist (see Plets *et al.*, (2013), [Marine Geophysics Data Acquisition, Processing and Interpretation, Guidance Notes](#)).

### **11. Carlingford Oyster Company**

Can I please start by saying how disappointed I am at the behaviour of the Warrenpoint Harbour Authority, that I had to find out from a third party about this proposal when it is blatantly obvious that it would fundamentally effect our business, not only the production on our farm but also our food safety and the reputation of our oysters which we airfreight around the globe.

I attended a meeting of our local CLAMS group yesterday specifically called to address the threat caused by this proposal but thought it prudent to make a short personal submission.

Their assessment of adverse effects stating that "the key potential adverse effect on aquaculture sites is the alteration of productivity due to increased suspended sediment concentration and/or deposition of material within the sites" is entirely accurate.



This proposed disposal site is well known to myself and anyone else with even a small knowledge of our lough as one of its deepest points. The fact that it has remained as such for millennia while we can witness many other areas of the lough accumulating silt during our brief lifetimes suggest strongly to me that the aggregate proposed to be deposited here will not remain there.

This site is close to our licensed aquaculture sites and so we are at risk from these redeposited material.

This redeposited material not only poses the threat of silting up our sites making them less productive and causing mortalities but also presents a much more sinister pollution hazard.

Our oysters are filter feeders. They are adept at filtering out and accumulating trace nutrients specific to their unique environment. This is what gives our Carlingford Oysters their distinctive and sought after flavour.

It can also lead to problems when they concentrate less desirable constituents present in our seawater both biological and chemical.

In order to export our oysters to the Chinese market we must subject our oysters to regular tests for toxic metals. Despite the fact that China produces 1,000,000 tonnes of their own oysters there is a demand for European oysters primarily because they have so badly polluted their own shoreline. However this is highly regulated. Until recently there was a vibrant trade in Irish brown crab to China which was terminated abruptly because it breached their threshold for cadmium concentrations.

The dredged material from commercial ports and the upper reaches of their shipping channels is renowned for being highly contaminated. The standard procedure for cleaning up for centuries has been to wash spills directly into the sea. Antifouling TBT paint now banned from use on recreational boats is still permitted on commercial shipping. The given logic that commercial ships spend a much greater proportion of their time on the open ocean does not negate the fact that a port will almost permanently have its capacity of ships at dock continuously leaching this highly toxic chemical.

Can I finish by saying that we are one of many making our living from Carlingford lough. This of course includes those working on the Harbour in Warrenpoint. I hope that we can continue to work in our shared environment in a way that does not impede the other and that respects the rights of each individual stakeholder.

I am at your disposal should you require any further details or information.

## **12. CLAMS**

Carlingford Lough is an important area for the production of high quality mussels, (*Mytilus edulis*), cultured on the seabed and Pacific oysters (*Crassostrea gigas*), grown on bags and trestles. The Carlingford CLAMS group is composed of all aquaculture Licence holders in the Lough and together we hold licences for 1,125 Ha of the Lough.



The CLAMS group of Carlingford Lough have two central objections to the proposed activity, namely;

- (1) The two areas outlined for depositing sediment are simply too close to the Lough's Aquaculture sites.
- (2) The type of sediment found in a major port such as Warrenpoint, is unsuitable for in-lough disposal and is best deposited away at sea.

#### **EIA (Boundary)**

On the issue of jurisdiction, the scoping report states that DAERA can only issue licences for sites that are clearly within the Northern area of the Lough. We do not see how the two sites proposed are clearly within the Northern area of the Lough. Indeed we feel that the only areas that are clearly either north or south are intertidal areas.

There is a requirement for an EIA for this significant change to the activity of the lough. From our experience, activities that proceed without an EIA have been detrimental to our operations. An example of this is that recently an increase in the size of the ferry traffic occurred without an EIA, and this has made things difficult for shellfish producers in the area.

According to the Marine Management Organisation and DAERA, an EIA is not required. However in terms of best practice and from an ethical point of view a full EIA should be carried out. The Scoping Report has raised so many questions – far more than it has answered, many of these questions are brought up briefly in this document, but that is clear that a only a full EIA, could deal with them in detail.

The Scoping report needs to be able to have looked specifically at the risks to Aquaculture interests in the Lough. Indeed by nature of the inadequate consultation with the Aquaculture sector, more time and a more comprehensive process would be required for us to make a fuller response as well. This should be through an EIA process.

The Scoping Report will need to set out clearly where the border is within the lough. From the minutes of the NIEA meeting of June 2016, all of DOENI were of the opinion that the inner proposed disposal site was not clearly within their jurisdiction. However, regardless, of where the border is, it is clear that there will be an impact from the proposed activity affecting the Southern area of the lough.

From this point alone, Republic of Ireland Authorities (such as EPA and Department of Agriculture Food and the Marine and Ireland's Seafood Development Agency, BIM), need to have a significant say in this process. Specifically, the relevant authorities from Republic of Ireland need to be part of the *decision* to carry out an EIA or not.

## **Consultation**

From both a North– South basis and also from a Northern Ireland context the consultation and engagement on this has been inadequate.

Data is being sought from the EPA and DAFM, as the new dredging activity will have an impact on Southern shore Aquaculture. If the Southern shore is affected and data is required from ROI agencies, they should be part of the decision process as to if an EIA should be carried out or not.

Aquaculture is a significant stakeholder and thus we fail to see why the individual members have not been formally contacted and consulted during this scoping exercise. There seems to be a reticence to engage with the shellfish food producers on this issue. The Scoping Report's passage on 'Adverse effects on Recreational Boats' (p37) outlines how discussions are planned to be held with Warren Point Harbour Master and the Royal Yachting Association and Carlingford Lough Yacht club directly.

No equivalent passage of engagement is set out in the "Adverse effects on Commercial Fisheries" (i.e. Aquaculture), overall this section is very light on dealing with the Aquaculture sector in any detail (p33).

As well as the Scoping Report in not dealing with Aquaculture the Consultation has been inadequate, and insufficient. By excluding engagement with the Aquaculture operators and their business concerns this can lead to an 'us and them' approach rather than a more positive and productive, stakeholder based 'bottom-up approach'.

The CLAMS Group concept itself is an idea designed to give Aquaculture producers a voice and platform to communicate their position on management issues relevant to their lough. The European Commission's Strategy for the Sustainable Growth of Aquaculture (Com (2013) 229 final) cites CLAMS groups as an example of how Marine Spatial Planning (MSP) can be implemented. However, this CLAMS process only functions if the voice of Aquaculture through CLAMS is taken on board.

The impact to Aquaculture of silt and its chronic accumulation of contaminants over time will have a cost impact to the sector. The sector may have loss of earning through having to remove silt, and loss of income through poor fish growth, food safety concerns and stock mortalities.

## **Model**

A process of modelling is proposed to look at the potential impact of the in lough deposits. These models will look at and include the impacts on the southern shore of the lough and of course this emphasises the need for southern regulators to be involved in key decisions such as the need for an EIA.

The proposal is for more frequent deposits to be made periodically throughout the year. A consequence of this is that there are so many variations that can affect the model – that the model will be of limited accuracy and use, as the model cannot take all those factors into account.

Models are theoretical desk top projections of activities; they are best used when validated subsequently by real life tests. In this case, the real life test to validate the model will be too late for the Aquaculture sector in Carlingford Lough as the impact will already have happened.

By its nature, the very frequent deposits present a number of variables means that this cannot be modelled accurately.

The modelling being considered (p26) is currently to look at the dispersion of sediment at a point over time and if states of the tide have an effect. It is obvious to us, that along with tide effects many other variables have to be taken into account. This is particularly relevant when the increased frequency of depositing in the lough means that every eventuality will be present at some point. The following short list was drawn up by the CLAMS group;

- Wind direction / strength
- Weather – during and after deposits made
- Time of year
- Level and type of traffic – its impact on dispersal
- Chemical content of sediment e.g. PAHs and heavy metals – and what their cumulative effect from dispersion will be on the shellfish flesh of Aquaculture stocks.
- Short term and long term cumulative impacts on;
- Growth on Aquaculture stocks
- Health / stress of stocks
- Seasonal aspects to Aquaculture (e.g. spawning of mussels)
- Detrimental impacts on the SFWD water classification
- Shellfish Food safety concerns.

### **Sediment**

We farm shellfish intended for direct human consumption and therefore any activity that could cause contamination of our product is of massive concern. It is our responsibility to ensure our product is safe before it is placed on the market and the repeated dumping of sediments containing heavy metals and PAHs will undermine our confidence in our product and thus our ability to find a customer.

Ireland's WFD monitoring indicates that there are already unsatisfactory levels of zinc within / in the vicinity of the designated shellfish area in Ireland. Following pollution incidences at Warrenpoint Harbour, elevated levels of PAHs have been detected in shellfish at some locations in the Lough. It is not unlikely that spoil disposal within the Lough could exacerbate this problem.

From the minutes of the NIEA meeting of June 2016, DOENI "*stated that while the sediments being dredged are suitable for sea disposal that is a very different case to where there are live aquaculture [stocks] present.*"

In terms of the source of the sediment, both the harbours inner and outer harbour sediment, are periodically dredged and deposited. Both types of material need to be taken into consideration, the inner sediment is more likely to be of poorer quality than the outer.

In 2017 the Food Standards Agency (FSA) carried out a review of the annual NI Chemical contaminant monitoring programme. A revised risk based programme was introduced. On that risk basis from historical data the number of sites in the Programme was reduced from 17 to 7 to be

sampled as part of the chemical contaminant programme. *Three of these seven are in Carlingford Lough*, this means that Carlingford Lough with the current depositing plan is already considered by FSA a risk to be monitored. No other lough has more than one monitoring point, only Carlingford.

The sediment material is unsuitable for in lough disposal. The FSA tests show high PAHs in Narrow Water, (i.e. close to the harbour area) and similar for heavy metals. The most recent results for 2017 show Narrow Water Lead levels to be very high 0.55 mg/Kg and EFSA 4 (PAH) levels to be 26.0 µg/Kg – which is the highest result of the 7 areas monitored.

The DOE Marine Division produced a consultation in 2016 of the 2015 Review of Shellfish Water Protected Areas. From this consultation we see that Regulation EC/181/2006 set maximum level for contaminants in certain food stuffs including live bivalves. In 2011 EFSA set new limits for PAHs. From the DOE Marine Division consultation, Narrow Water has consistently failed to meet this standard. The source of PAHs is thought to be contaminated sediments within the Newry Estuary, associated with the historical import of coal at the quays of the harbour.

As a result of this, Narrow Water was not considered suitable for designation as a Shellfish Water Protected Area. This consultation also showed how a temporary increase in PAH concentrations was observed in Narrow Water in late 2014 / early 2015, attributed to an accidental oil spillage at the Port. From the DOE 2016 consultation, this incident *"highlight[s] the close proximity ...to a major port and its vulnerability to accidental spillages."* As there was a recent oil spill in October 2015, which resulted in higher levels of PAHs being recorded, yet this incident is not mentioned in the Scoping Report. This concern expressed above on the general of the nature of the activity within a port, would also apply directly to the proposed depositing activity, which is simply the frequent removal of sediment from this major port and then depositing it in close proximity to Aquaculture shellfish farms.

A key point to be made is that the testing of heavy metals and PAHs in sedimentation from the dredge sites is something that needs to be looked into, but this information on levels in the sediment gives little indication of the level of the heavy metal and PAH to be found in shellfish flesh. Shellfish are filter feeders by their nature, and accumulate materials like heavy metals and PAHs, therefore shellfish on farms will be at a greater risk to accumulate and store these materials.

The Site Characterisation Scoping Report 's analysis of the dredged materials characteristics - from a sample test two years ago in 2015- shows that the level of Cd, Cr, Ni and Zn were detected slightly above Action Level 1, and no elevated PAHs were observed in any samples.

From the Scoping Report, no additional sampling is considered necessary for the Characterisation Report. This is not acceptable. Contaminants in sediment and contaminant levels in shellfish are two different issues. Shellfish are active filter feeders and concentrate contaminants in their flesh this a key risk to the Aquaculture sector and needs to be addressed through sampling and modelling.

Additional sampling is necessary, from the points made above on the accidents that a major port can suffer, to the high levels of contaminants in shellfish at Narrow Water, to the high levels of metals and PAHs found elsewhere in the shellfish flesh of the lough through the FSA monitoring programme.

It is clear that additional sampling is necessary, due to the closeness of the proposed deposit sites closeness to Aquaculture shellfish farms, and the accumulative effect of frequent deposits of sediment on nearby farms with shellfish feeding bivalves. In addition the inner proposed deposit site area is a deep hole of 35m, over the ages this site has never filled up with sediment but is flushed

out constantly. This flushing effect from the hole will continue to the surrounding Aquaculture farms, if harbour sediment is deposited there.

## **Conclusion**

The CLAMS group understand the need to dredge the harbour, and would like to see Warrenpoint Harbour along with the Aquaculture sector to be a productive part of the lough's economic activity. In the table of a summary of scope of the characterisation report, "Commercial Fisheries" (i.e. aquaculture) has survey requirements described as; "site surveys...potential observer trips". This is not enough to take into account the Aquaculture sectors concerns. 7 Aside from the risks of contamination increased levels of suspended solids in the Lough, higher silt levels alone will stress our shellfish stocks and while the effects may not be lethal, it can contribute to higher mortality levels, and quality / meat content will decrease, this is a huge impact to us. As recently as this month, a Marine Institute document was produced giving advice to reduce losses on shellfish fish farms this summer ("Best Practice Guidelines for Pacific Oyster Producers for the 2017 Season"). This report constantly emphasises the approach for fish farmers to reduce mortalities is to not stress their shellfish as this leads to higher mortalities. From the Scoping Report it is stated that there will be no direct interactions with Aquaculture. However, the key consideration is not in the sediment dumping event itself, but the consequential interactions through the frequency, quality and quantity of sediment, are where the interactions with actual Aquaculture interactions will occur.

The report also says that sediment dumping events won't affect the traffic of the lough, once again the key and potentially damaging and therefore costly question for Aquaculture sector is how the movement of the traffic of the lough (e.g. Seatruck) will affect the dispersion of the Port's deposited sediment.

A section outlining how the location and scale of deposits is monitored and policed is also needed. When the risks to Aquaculture from contaminants and silt are so great, an open data and policing of the dredging activities will be clearly needed. This could help link any problematic effects such as problems with stocks and quality to the in-lough deposits.

The Scoping Report says that the silt is not expected to be deposited permanently on the seabed. Clearly the sediment will be redistributed to locations within the lough and its 52 license aquaculture sites and this over time will build up. Where this is and what the consequences of this to aquaculture are key points.

Also, the report indicates that the source of the silt in the harbour, is from the lough rather than the Newry River. From the minutes of the NIEA 2016 meeting, an estimate of the quantity and type of silt is mentioned, i.e. 270,000 to 390,00m<sup>3</sup> are currently deposited at open sea, this is silty sand, very fine "black water" low density. From this passage it could be likely that in-lough depositing of sediment should result in bringing more silt more quickly back to the harbour. Rather than the current approach where silt is deposited far away at sea.

The costs of different types of in-house dredgers are discussed in the minutes of the NIEA meeting of June 2016. The cost for a larger dredger is estimated at £60m, in contrast to a small dredger at £0.6m. However, in the long run the current off-shore depositing arrangement remains the best way to proceed, in terms of overall costs to Warrenpoint Port, the costs to the Lough's community, the shellfish production sector as well as the cost to the environment and the consumer.

As indicated in the previous consultation responses by environmental NGO's the proposed in-lough sites are close to environmentally protected areas. The environmental concerns and risks are clear and this cost need to be factored in as well.

Instead, we ask ADBP and Warrenpoint Port to hold a dedicated Aquaculture meeting in Newry with ourselves, i.e. the CLAMS group, and also DAERA along with other groups responsible for aquaculture and seafood such as BIM the Loughs Agency and the Food Standards Agency.

Any further consultation report by Warrenpoint / ADBP needs to include a clear map of the lough showing the border boundary. It should also have a credible, comprehensive Aquaculture section included. This should be produced by an Aquaculture specialist, rather than the aquaculture sector described from a Civil/Marine engineering point of view.

However, from the many points raised above in this response, we believe both of the proposed sites are unsuitable for this activity, this is due to their closeness to shellfish farms and the nature of the sediment to be deposited. The many points raised all emphasise the need for a full EIA to be undertaken, whether it is mandatory or not, so that they are all investigated fully.

Depositing sediment from the harbour within the lough is not acceptable, problematic and in the end will be too costly to deal with all the problems that it brings up.

The shellfish producers of Carlingford Lough spend a considerable amount of their time promoting their product and the water quality credentials of the Lough on the world stage. Sadly, this proposal of in- lough depositing of sediments from a major port, will seriously undermine years of building up the Lough's image and its reputation of being a centre of high quality seafood.

Our position is that the current status quo of the dredging arrangement as currently used, with offshore deposits made outside of the lough is acceptable and clearly works well. This process of bringing and depositing sediment outside of the lough should be maintained and continued.

### **13. BIM**

I wish to reiterate our previous position that in line with Article 2(1) of Directive 2011/92/EU as amended by Directive 2014/52/EU, an EIA should be required for this project as a result of the repeated nature of the proposed activity and the location of the project in a transboundary lough adjacent to protected sites and aquaculture operations producing shellfish for human consumption.

I note that the DAERA state in their letter of the 20th February that the current process is of a similar nature to EIA, however at this early stage it is clear that the scoping being undertaken is not in line with Article 6(1) of Directive 2011/92/EU as amended by Directive 2014/52/EU which states that "Member States shall take the measures necessary to ensure that the authorities likely to be concerned by the project by reason of their specific environmental responsibilities or local and regional competences are given an opportunity to express their opinion [ ... ] To that end, Member States shall designate the authorities to be consulted, either in general terms or on a case-by-case basis", further cross border scoping is required and the relevant authorities are listed below.

I trust that DAE RA will consider our following comments and instruct the Developer to undertake further scoping before completing the Characterisation Report.

#### **Sediment cell**

The Sediment cell theory is linked to the processes of erosion, transportation and deposition within the coastal margin. Carlingford Lough is not an erosive lough, it has extensive mud and sand flats and the majority of sediment in Carlingford Lough is transported down the Newry River. Thus the



presentation of the "Sediment Cell" as the best approach to dredge spoil management is inappropriate in this case.

If the developer persists in using the "Sediment Cell" to support the proposal - this must be directly linked to the environment of Carlingford Lough and further elaborated.

### **Consultation**

The consultation summary presented in the scoping report is incomplete in that it again fails to list the issue of transboundary consultation which I have raised. I again must express concerns as to the adequacy of consulting the EPA with regard to DAERA Licencing Jurisdiction in Carlingford Lough. The relevant Department to consult on this issue remains the Department of Foreign Affairs and they must be consulted on the jurisdictional status of the project.

Further the Characterisation Scoping Report consistently omits the consideration of IE legislation, and the competent authorities which should be consulted as part of the Characterisation process

### **Dredged material characteristics**

I have concerns about the assertion that there is a low risk associated with the disposal of fine sediments with levels of cadmium, chromium, nickel and zinc above Action level 1 within the Lough, because DEARA previously permitted its disposal at the dispersive offshore site. The repeated dispersal of these fine sediments within the Lough may lead to bioaccumulation in shellfish intended for Direct Human consumption, this has implications for human health and the viability of aquaculture businesses and the reputation of shellfish produced in the Lough.

This is of particular concern when results of IE WFD monitoring indicate that there are already unsatisfactory levels of zinc within/ in the vicinity of the designated shellfish area in IE. It is likely that spoil disposal within the Lough could exacerbate this problem and directly affect the shellfish stocks in the Lough.

The Characterisation report must address this issue in consultation with the NI and IE competent authorities for food safety and water quality.

### **Water Framework Directive**

No reference is made to the IE classification or targets for Carlingford Lough and how the proposed development will influence the IE target of achieving Good status by 2021. The Characterisation report must address this issue in consultation with those IE authorities with interests in water quality - EPA, the Marine Institute and Louth County Council

#### **Biological Environment**

Again there is a lack of consideration of the transboundary nature of the Lough. It is not sufficient to only consult DAERA on this issue, the National Parks and Wildlife service and the Marine Institute of Ireland must also be consulted as to the standard and content of the Natura Impact Statement required by Irish Law to accompany this Characterisation Report.

### **Marine Mammals**

Under the Wildlife Act, 1976 and Wildlife (Amendment) Act, 2000 IE all cetaceans and seals are protected species listed on the 5th Schedule. The characterisation report must address the IE assessment requirements in consultation with IE authorities. We would suggest that NPWS and the Irish Whale and Dolphin Group be further consulted on the issue.

Any decision on further survey requirements must only be made following this consultation



## **Underwater Archaeology**

It is not sufficient to consult exclusively with NI bodies and experts on this issue.

The characterisation report must further address this issue in consultation with the Underwater Archaeology Unit of the National Monuments Service within the Dept. of Arts, Heritage, Regional, Rural & Gaeltacht Affairs. Any decision on further survey requirements must only be made following this consultation

## **Human Environment**

The Characterisation Scoping Report exclusively focusses on suspended solids when discussing impacts on aquaculture and presents a modelling approach to addressing this issue. It is hard to judge the adequacy of the modelling proposed as it has not been stated what the model inputs will be; how many dumping events will be modelled cumulatively? Further important questions must also be answered in advance such as; what is length of the model run (Years?) and what is the resolution of the model and who will run the Model?

The issue of contamination (Water and Shellfish) associated with retaining even mildly contaminated sediments within the laugh and repeated re suspension is not considered. This must be addressed in any modelling for the Characterisation report.

The Characterisation report must address this issue in consultation with those IE authorities with interests in fisheries and aquaculture -DAFM and Marine Institute.

It is neither acceptable nor sufficient to exclude all aquaculture stakeholders from this consultation and we would request that the Irish Shellfish Association and all aquaculture licence holders are immediately and formally consulted as part of the scoping process.

## **Summary**

I trust that DAERA will consider our comments and instruct the Developer to undertake further scoping before completing the Characterisation Report.

## **14. Greencastle Oysters Limited**

We refer to the consultation exercise relating to Warrenpoint Harbour Authority's ("WHA") proposals to commence in-lough dredging placement. We act on behalf of Greencastle Oysters Limited, which operates an oyster farm at Greencastle, Co.Down.

Our client has serious concerns regarding WHA's proposals. First, our client is disappointed that to date there has been no direct engagement with the company by any party prior to becoming aware, at late notice of this consultation. Given the significance of WHA's proposals in relation to the risks posed to the oyster farm our client would have expected very early engagement in this process. We note that in WHA's Scoping Report, Appendix C, no representatives of Carlingford Lough's extensive aquaculture industry were represented at the "stakeholder meeting". Given the significance of the industry in Carlingford Lough this is both surprising and disturbing.

We must emphasise that from this point we expect that our client will be able to fully participate in the process and be kept informed of all progress in WHA's assessment and given ample opportunity to review information and respond. Our client is concerned that the claimed economic imperatives of WHA will be given precedence over adequate and robust consultation with all stakeholders.

With regard to WHA's scoping report we have the following comments. You will appreciate that given the late notice of the proposals, the following comments are "high level" and not exhaustive. We reserve our client's rights to make further submissions in due course.

#### **Requirement for EIA**

We do not agree with the conclusion reached by DAERA that this project does not require assessment under the Marine Works (EIA) Regulations 2007 (as amended). The Department has taken an overly restrictive interpretation of Schedule 2 of the Regulations and we note that, for example, Scottish Natural Heritage in its "Handbook on Environmental Impact Assessment" considers that deposit of dredging at sea to be a project requiring EIA under the Scottish implementing regulations. The screening opinion of 20 February 2017 provides insufficient justification for excluding the proposal from the EIA Regulations and we ask that the Department provides a fully reasoned opinion on this issue.

#### **Cross border consultation**

It is remarkable that the Department has undertaken such limited consultation with the regulatory authorities in Ireland in relation to WHA's proposals. WHA is incredibly dismissive of the relevance of ROI, noting simply that "the navigational channel [is] deemed the unofficial boundary" between the NI and ROI jurisdictions. Given that deposited sediments will be extremely mobile, no practical distinction can be made between the NI/ROI border and the Irish authorities must be fully consulted with and engaged in the proposals. This also raises the question as to whether the Irish authorities would consider that the project requires EIA given the clear transboundary nature of the proposals.

#### **Risk to aquaculture sites**

Our client's licensed aquaculture site is in close proximity to "Site 1" as proposed by WHA. Any impact from deposited dredging material is completely unacceptable. Risks may arise both from siltation of the oyster beds but also from contamination risks presented by heavy metals and/or PAH in the dredged material. There is no safe or acceptable limit for deposition/contamination; our client's business relies entirely upon the oysters being of the highest quality and any impact on growth, mortality or quality of its stock is unacceptable. The commercial imperatives of WHA should not in any way override the long-established commercial imperatives of our client and the numerous other aquaculture businesses in Carlingford Lough.

#### **Proposed modelling**

Given the complexities of the marine environment, particularly within a sea lough, we would question whether WHA's proposed modelling of sediment flows will be adequate. Any margin of error in the modelling could be disastrous for the environment and aquaculture within the Lough. The Department must take an exceptionally precautionary approach to WHA's assessment. This must in any event be taken into account within the required Habitats Regulation Assessment which will require assessment to the highest scientific standard (as required under the Waddenzee decision of the European Court of Justice) with no room for uncertainty.

#### **Information request**

The WHA scoping report refers to a site selection report (paragraph 5.1) dated 2016. Kindly provide a copy of this document.

#### **Conclusion**

As noted above this response is by necessity high level and further issues or concerns may arise in due course. Given the extreme sensitivity of the Lough both in relation to aquaculture and designated habitats/species (at both national and EU level) it is inconceivable in our client's view that WHA's proposal could be deemed acceptable. Our client reserves its rights accordingly.

Notwithstanding the above we would reiterate that our client must be afforded the opportunity to fully participate in the assessment process. In particular given the detail and complex assessments that will be necessary, all parties must be given sufficient and reasonable time to review and respond to any and all further documentation.

### **15. Concerned Lough User**

I am a resident of Carlingford, a boat owner and sailor.

I wish to have the following issues taken into account in the scoping report.

The proposal to use the area around the No. 18 buoy (site 2) infers that the dredging disposals will remain there and not create a hazard, a nuisance or loss of existing facilities or income sources. This needs very serious consideration.

If the build-up of dredging disposals at the No. 18 buoy is not an issue then the disposals are most likely to be distributed around the Lough and that would result in serious issues for Carlingford harbour and all the shallow waters in the Lough.

The above comments also relate to Site 1 (Greencastle/Cranfield)

The issue of the ownership of the Lough has not been addressed and the application infers that the Lough is owned in its entirety by the United Kingdom. This is disputed.

### **16. Marine Monitoring and Assessment – Marine and Fisheries Division**

My concerns are generally covered in the document, but issues such as cumulative turbidity (aquaculture & disposal plus potential re-suspension from site by wind/wave) I think will be hard to quantify/model. Weave all that into the potential decrease of primary producers, their uptake of nutrients and reliance of aquaculture on this production and an increase in nutrients and a decrease in shellfish productivity may be a potential outcome.

### **17. DfI Transport NI Southern**

From the perspective of the Newry Southern Relief Road (NSRR) project, the NSSR scheme is well upstream of Warrenpoint Harbour Authority (WHA) proposed disposal activities, and as such there should be no conflict of interest from an environmental perspective, providing that both projects demonstrate cognisance of each other's proposals in the HRA process.

Considering the proposed WHA works would be in / very close to Carlingford Lough SPA and Carlingford Shore SAC, DfI would assume that WHA will be undertaking a Habitats Regulations Assessment (HRA). When undertaking this HRA, WHA should consider possible in-combination effects of the construction of the Newry Southern Relief Road scheme upstream.

## **18. Carlingford Marina Enterprises Ltd**

This Company wish to record our strong objection to the proposal. I set out as follows the headings under which we are recording such objection:

- The proposed dumping would seriously affect the viability of Carlingford Marina
- The proposal displays a complete lack of consideration for other interests in the Lough
- The Site Characterisation Scoping Report carried out by Anthony Bates Partnership is deficient in fundamental and significant areas.
- The Consultation process followed to date is limited to the point of being sectional.

### **Carlingford Marina**

Carlingford Marina is now a major driver of Marina Tourism in Carlingford and the surrounding area. In order to remain viable as a Marine Tourism Operation it needs to afford access at all stages of the tide to visiting and marina based vessels. The proposal to dump material in a scoured depression in the sea bed some 800 meters from the Marina entrance will cause silting in and around the marina to such an extent that it will destroy that facility.

### **Other Interests in Carlingford Lough:**

Carlingford Lough represents a major centre for Marine Tourism in the Irish Sea. It is also one of the most important centres for Aqua Culture in Ireland. The combined turnover generated from these industries is many times that of Warrenpoint Harbour. The nature of employment generated by this industry underpins the socio - economic wellbeing of local communities. There is no consideration of these people in the report. The only reference I see is the last sentence in section 9.2.17 " Sedimentation MAY (my italics) affect the safety or viability of recreational boating activities which take place within the Lough

### **Limitations of the Scoping Report**

The Report does not attempt to consider the viability of the proposal in practice. The topography of the sea-bed within the lough is formed by a dynamic equilibrium. Every tide moves vast quantities of material - redistributing it around the floor of the lough. Because the currents and the topography are generally similar on every tide it creates the same sea-bed configuration on each tide. Where the sea-bed is altered the tidal forces will seek to recover its original configuration. If material is deposited where currents scour the sea bed it will move out the material from those areas again very quickly - and where there are voids created where there had been deposition then they will seek to fill those voids again. In the context of Carlingford Lough however there is an intermediate stage where the material that is scoured out does not go directly to the void from which it was removed but is

distributed throughout the lough - particularly to the shallower areas where recreational water sports and aqua culture take place. The effect of continuous dredging and deposition in scoured areas will be the continuous build of silt in the areas for recreational water-sport, Marine Tourism and aquaculture.

References:

a/ A bathymetric analysis of equilibrium potential within Elkhom Slough, California Joshua Sampey  
Prepared for the division of Science and Environmental Policy (SEP) , California State University  
Monterey Bay-

And associated studies

Evaluation of Cumulative Ecosystem Response to Restoration Projects in the Lower Columbia River and Estuary, 2004 to 2010 (five reports) Prepared by: Pacific Northwest National Laboratory National Marine Fisheries Service Columbia River Estuary Study Taskforce University of Washington May 2012

Modelling of sediment transport and morphological evolution under the combined action of waves and currents Guilhenne Franz<sup>1</sup> , Matthias T. Oelpe<sup>2</sup> , David Brito , Ligia Pinto<sup>1</sup> , Paulo Leitao , Ramiro Neves, Instituto Superior Tecnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-001, Lisboa, Portugal  
2 5 Centre Rivages Pro Tech, SUEZ, 2 allée Theodore Monod, Bidart, France 3 ACTION MODULERS, Estrada Principal, n°29, Paz, 2640-583 Marra, Portugal 4 HIOROMOD, Rua Rui Teles Palhinha, n°4, 1 °, Leiao, 2740-278 Porto Salvo, Por1ugal

Long-term morphological change and its causes in the Mersey Estuary, NW England

Simon J. ; Kenneth Pye; Daphne van der Wal; Adrian Neal

Limitations of the Consultation Process

There is an obvious lack of consultation with those who would be most affected by the proposal e.g. public representatives North or South of the border. There is also a severe lack of representation of any sort from The Republic of Ireland (other than Bord lascaigh Mhara) When it is considered that the proposed Dumping Grounds are in waters ceded to the Free State in 1922 this failing is of fundamental significance. In light of brexit, the implications of this oversight will be profound.

The following questions are not addressed:

- It is illegal to interfere with any aspect of Carlingford Lough without the consent of the Government of Ireland. Has such consultation taken place or permission been obtained?
- Consultation has been undertaken with the RYA. Has any similar reference been made to the ISA?
- While a representative of Bord lascaigh Mhara sat at the consultative meeting - none of the companies involved in Oyster Farming in Carlingford are aware of the proposal.

The above is only an initial response to the proposal. Were it to gain any "traction" we would be obliged to take the matter to the highest level to ensure protection of the lough and the interests of those who are dependent on it

## 19. Loughs Agency

Thank you for your recent correspondence in relation to the above-mentioned proposed licence application. The Loughs Agency is the statutory body charged with the conservation, protection and

development of inland fisheries within the Foyle and Carlingford systems, the promotion of development of Loughs Foyle and Carlingford, and catchments for commercial and recreational purposes in respect of marine, fishery and aquaculture issues and the development of marine tourism.

The Loughs Agency has considered the information and whilst we would prefer an out-of-lough disposal site, we would respond as follows. Firstly, the Agency has recently received a number of phone calls from concerned Aquaculture licence holders in the Lough. These stakeholders have not been contacted directly and have serious concerns on potential effects on their businesses. The Agency has noted their concerns and informed them to make any submissions to the Marine and Fisheries Division.

The report would need to consider the impacts of the new ferry on deposition and suspended solids. A concern of the Loughs Agency's would be that wash from the ferry could re-suspend dredged material and cause significant siltation on aquaculture sites in particular in Millbay. This will require operational monitoring for a period of time, when the ferry eventually commences.

Section 9.2.9 of the report suggests that the location of the dredge sites means that no interactions with the aquaculture sites is predicted. However, water and sediment quality monitoring data used to inform the characterisation is from 2005-2014 (9.2.4) and will not take into account additional pressures as a result of the new ferry. Furthermore, the DELFT3D model is not set to account for potential hydrological changes as a result of the ferry.

In relation to the summary of scope of the characterisation report, the Loughs Agency does not feel enough weight is being given to survey requirements in sections 9.2.5 or 9.2.9 – in particular, consideration in tandem with the potential thus far undocumented effects of the new ferry.

The Loughs Agency would request that the applicant demonstrate best environmental practice in this regard. Furthermore, the applicant should adopt best practice in applying a biosecurity protocol during the works to reduce the risk of spreading invasive species within the aquatic environment.

The applicant should also be aware that it is an offence under section 41 of the Foyle Fisheries Act (1952) to cause pollution which is detrimental to fisheries interests.