# Kelleher, Evan

From: OSullivan, Paul
Sent: 25 January 2019 17:35
To: ODonovan, Geraldine
Cc: Campbell, John

**Subject:** FW: Ardara town wastewater discharge D 0512-01

Attachments: confirmed outfall position IW250119.pdf

#### Geraldine

For information - Irish Water have given clarification on the questions we raised about the Ardara town outfall – see below.

The main outcome is that the outfall point is confirmed to be roughly 525m west of where it was suggested in earlier epa licence references. This puts the outfall site just inside site 397B and also close to 397C ( see sketch map attached). This has implications for both those application sites.

The fact that discharge is continuous means that water quality at low tide near the outfall will be locally poorer than it would be if a tide related discharge.

The fact that outfall diffusers block regularly with sand confirms mobility of substrate in that area of the Bay which also has implication for stability of aquaculture structures if placed there.

MED report will proceed on basis of this new information.

Regards

Paul O'Sullivan

From: Matthew Collins [mailto:mattcoll@water.ie]

Sent: 25 January 2019 15:31

To: OSullivan, Paul

Subject: RE: Ardara town wastewater discharge D 0512-01

#### Ardara town wastewater discharge D 0512-01

Good afternoon Paul,

Please see below further information from Paul Kilcoyne, our regional Asset Operations Engineer in the North West region with regards the above mentioned discharge. Paul Spoke to Eoin Kerrane in Donegal Co Co to gather this info.

- 1. One issue relates to a tidal discharge which to my knowledge wasn't part of the design. Yes Paul there is continuous discharge here with a storm holding tank only.
  - 2. The second issue relates to confirmation of the actual location of the outfall diffusers. Was there a marker post or buoy?

Yes. However the marker buoy was dislodged and washed ashore during a storm.

3. The third issue relates to the blocking of the diffusers with sand which I recall there were issues with. Have these been resolved?

Yes. The diffusers periodically block with sand (maybe once a year on average) and we have developed a method to unblock.

- 4. Can local knowledge confirm that the diffuser is not 525m further west?
  - a. (My recollection is that the outfall diffuser was constructed near the confluence of the two channels which has now moved immediately east due to dynamic sand shifting in the estuary, and in that respect the position shown on the IW drawings looks most likely.

Could you advise please.

We recorded the diffuser coordinates as:

#### 171692.8 391644.1

This is close to coordinates given by Paul O Sullivan below (171679 391662) as being where they noted upflow (25m away). The difference between these 2 sets of coordinates could be explained by the there being four outlets from the diffuser in series. Different ones could have been blocked during survey.

This info seems to support your original suggestion as to the general whereabouts of the location of the outfall, I hope this helps.

I will speak to our asset information department in order to ensure the location of the outfall is amended. Please let me know if there is anything further I can help you with.

#### Thanks,

# **Matthew**

From: OSullivan, Paul [mailto:Paul.OSullivan@agriculture.gov.ie]

**Sent:** 23 January 2019 15:36

To: Matthew Collins

Subject: RE: Ardara town wastewater discharge D 0512-01

#### Hi Matthew

Thanks for update.

Note that if you have people on site looking for the outfall you might inform them that the location where we DAFM think the outfall is (near 171679,391662) is safely approached on foot probably *only* from the north west direction at low spring tide— other directions and you may need a boat due to intervening deep channels (even at low tide). We could meet your people on site if necessary.

Note a Donegal County Council drawing ref Ard/LA/C2(i) in the epa discharge licence application documents online which differs to other drawings I think bears out that the outfall is probably not at 172200, 391730 and more likely to be where we suspect.

Looking forward to getting your steer on the questions raised

Regards Paul O'Sullivan

From: Matthew Collins [mailto:mattcoll@water.ie]

**Sent:** 23 January 2019 14:15

To: OSullivan, Paul

Subject: RE: Ardara town wastewater discharge D 0512-01

# Good Afternoon Paul,

Firstly let me assure you that you have not been forgotten about. The more I spoke to our regional operatives in the North West region, the more people have gotten involved and now we have a small team of people trying to get exact answers for you. The exact location of the outfall seems to be the one that is taking the longest to get answers on. I am expecting answers on this by the end of today. In the mean time, please see notes below.

- Is the discharge at the primary discharge point in the Owenea estuary (Loughros Mór Bay) a continuous discharge or a tide regulated discharge at present?
  - It's a continuous discharge. There may have been a misunderstanding at licencing stage that a tidal tank was in place to limit discharges to high tides only, however this is not the case and a technical amendment of the licence is required. We intend to correct this with the EPA.
- 2. Condition 5.6 of the epa wastewater discharge licence of 2015 stated that the licensee will provide and maintain a mechanism by which the primary discharge...is restricted to periods of high tide only in the

Owenea Estuary; – this was set to be completed by Dec 2016 – Can you tell me is such a mechanism in place? If in place what are the discharge periods relative to high tide? If mechanism not in place are there any plans to provide such regulation of the discharge?

See answer to 1 above

3. Can you confirm for us the position of the primary discharge point in the Owenea estuary? It is given in the formal application form to epa by Donegal County Council as 172200, 391730. it is referred to as SW001 with the same ING coordinates in epa annual environmental reports. It is difficult to know from surface surveys at low tide where it is but our survey work on shore recently found distinct upwelling at low tide at a point some 525 m further to the west at 171679 391662 which we think might be the actual outfall point?? (see image taken at this point attached where upwelling is at centre foreground – mp4 video also taken and available if required)). If the outfall is in fact at or close to 171679,391662 we would welcome confirmation of this as we had relied on the official coordinates up to now and it is an important piece of information in our aquaculture assessment work. (The actual outfall position would also affect the choice of downstream monitoring point –as it stands it may be in the wrong place at 172034.5, 391710.2 (not downstream)). Awaiting definitive response from IW Operations team in the North West. I have spoken to our GIS team who have checked the position of the point. Both the LEMA data and IW Discharge Point data agree that it should be at 172200, 391730 as stated by yourself.

If the discharge point is different to the coordinates given in the licence for the primary discharge point (SW001) a technical amendment will be applied for to correct this in the WWDA.

- 4. Have there been issues with the operation of the diffuser ports due to blockage by moving sand?

  Not that we know of; the diffuser ports are likely to incorporate a tideflex valve which prevents backflow.

  Currently checking with IW Ops.
- 5. Is there any outline information you could provide to us on frequency of storm overflows discharging via main outfall or via SW002 ( (Owentocker river)?

Currently checking with IW Ops team. There may be flow measurement event monitoring in place for this overflow SW002. Will get back to you on this and the other points asap.

Thank you for your patience on this,

**Matthew Collins** 

Spatial Planning Specialist Asset Strategy Irish Water Colvill House Talbot St. Dublin 1

Email: mattcoll@water.ie
Tel: +353 1 8925738



A Please consider the environment before printing this e-mail

From: OSullivan, Paul [mailto:Paul.OSullivan@agriculture.gov.ie]

Sent: 23 January 2019 13:06

To: Matthew Collins

Subject: RE: Ardara town wastewater discharge D 0512-01

#### Hi Matthew

Are any answers available yet I wonder? If you had anything for us on the outfall location in particular it would be helpful at this point (no. 3 in list of queries) – as you can imagine outfall location is important in the assessment of aquaculture development proposals in the Bay

Regards Paul O'Sullivan

From: Matthew Collins [mailto:mattcoll@water.ie]

**Sent:** 15 January 2019 12:13

To: OSullivan, Paul

Subject: RE: Ardara town wastewater discharge D 0512-01

Paul,

Just an email to acknowledge receipt of your request and to let you know I hopefully will have all the answers on this within the next couple of days.

Anything further, give me a shout.

Regards,

#### Matthew Collins

Spatial Planning Specialist **Asset Strategy** Irish Water Colvill House Talbot St. Dublin 1

Email: mattcoll@water.ie Tel: +353 1 8925738



A Please consider the environment before printing this e-mail

From: OSullivan, Paul [mailto:Paul.OSullivan@agriculture.gov.ie]

Sent: 14 January 2019 17:23

To: Matthew Collins

Subject: Ardara town wastewater discharge D 0512-01

#### Hi Matt

Further to phone call this morning my enquiry is focused on the discharge characteristics at the primary outfall serving the Ardara wastewater treatment works. My Department is interested because of aquaculture development proposals in the immediate area which we are evaluating at present.

My email enquiry to Irish Water was as follows "Please provide contact details for an engineer or caretaker dealing with operating the Ardara sewage scheme - Our Department wishes to find out about hours of discharge relative to high tide and diffuser operation in Loughros mór bay"

I can summarise the main questions we had as follows:

- 1. Is the discharge at the primary discharge point in the Owenea estuary (Loughros Mór Bay) a continuous discharge or a tide regulated discharge at present?
- 2. Condition 5.6 of the epa wastewater discharge licence of 2015 stated that the licensee will provide and maintain a mechanism by which the primary discharge...is restricted to periods of high tide only in the Owenea Estuary; this was set to be completed by Dec 2016 Can you tell me is such a mechanism in place? If in place what are the discharge periods relative to high tide? If mechanism not in place are there any plans to provide such regulation of the discharge?
- 3. Can you confirm for us the position of the primary discharge point in the Owenea estuary? It is given in the formal application form to epa by Donegal County Council as 172200, 391730. it is referred to as SW001 with the same ING coordinates in epa annual environmental reports. It is difficult to know from surface surveys at low tide where it is but our survey work on shore recently found distinct upwelling at low tide at a point some 525 m further to the west at 171679 391662 which we think might be the actual outfall point?? (see image taken at this point attached where upwelling is at centre foreground mp4 video also taken and available if required)). If the outfall is in fact at or close to 171679,391662 we would welcome confirmation of this as we had relied on the official coordinates up to now and it is an important piece of information in our aquaculture assessment work. (The actual outfall position would also affect the choice of downstream monitoring point –as it stands it may be in the wrong place at 172034.5, 391710.2 (not downstream)).
- 4. Have there been issues with the operation of the diffuser ports due to blockage by moving sand?
- 5. Is there any outline information you could provide to us on frequency of storm overflows discharging via main outfall or via SW002 ( (Owentocker river)?

Regards
Paul O'Sullivan
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Thank you for your attention.

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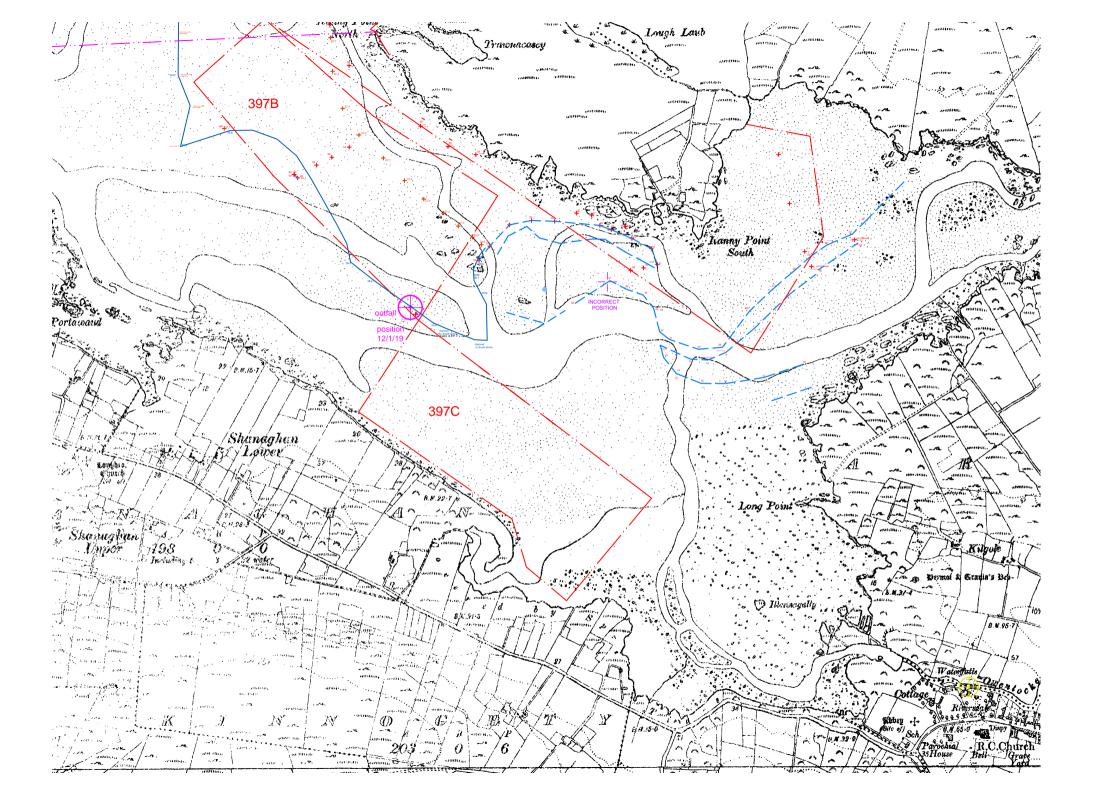
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Go raibh maith agat as d'aird a thabhairt.





# DONEGAL OCEAN DEEP OYSTERS LTD.

Rossylongan, Donegal Town, Co. Donegal, Ireland

Ms Jane O Mahony Aquaculture & Foreshore Management Div. Clogheen Clonakilty Co. Cork

# 20th December, 2018

Re: Application T12 397A/397B/397C

Dear Ms O Mahony,

Please find enclosed my submission regarding the objections re the above application.

Please do not hesitate to contact me if your require any further information.

Yours sincerely

Conor Reid

Managing Director

**Donegal Oceandeep Oysters Ltd** 

#### **Submission to**

# <u>Dept. of Agriculture, Food & Marine Aquaculture & Foreshore Division</u> Regarding objections received to licence applications Ref: T12/397A, 397B, 397C

Author:

Mr Conor Reid

**Donegal Oceandeep Oysters Ltd** 

Date:

17<sup>th</sup> December .2018

#### Introduction

I have read all of the submissions and observations received by your Department regarding application references numbers above. The majority of the submissions are a copy of the same letter, have a variety of similar surnames and contain signatories both from a national and international origin. This would suggest a very wide reaching public process which would seem to be at odds with some claims to the contrary. I have tried to identify all the major re-occurring points in each submission and please see my comments below regarding same:

# Oyster farming and the surrounding SAC 000197

The process of oyster farming occurs by placing seed oysters in plastic mesh bags on steel trestles. Trestles are made from mild steel. Oyster bags are made from a standard UV resistant plastic. Both have a useful life of about ten years where they are then removed and sent for recycling. The only waste generated in the farming process is oyster shell which is calcium carbonate, the formation of which permanently removes and stores carbon from the ocean. We keep it after grading and supply it to Bord na Mona's environmental subsidiary company (Anua Ltd). They use it as the raw material to build air and water filtration systems. We are currently working with Sligo Institute of Technology to look at other potential uses such as feed supplements, fire retardant properties and a slow release fertilizer for agriculture with natural PH control properties.

The filtration process of any shellfish (especially oysters as one adult can filter up 50 litres of seawater an hour) in a bay cleans the water and is now a key component in the United States in tackling coastal pollution and returning plant life to estuaries. These factors reflect why oyster farming has always been considered an environmentally friendly process but latest research suggests it's potential is even greater than previously thought in tackling the many marine and climate challenges that lie ahead. It represents a completely sustainable source of food production which relies entirely on the the sustainable exploitation of a naturally occurring resource (plankton) each year in our estuaries. Plankton growth is at it's greatest throughout the Spring and Summer. There are no feed inputs. There is no veterinary. Donegal is particularly well suited as all of the estuaries are tidal sand and mudflat systems with the exception of Mulroy which is a Fjord.

Oyster farming exists in many Special Areas of Conservation(SAC) and Special Areas of Protection (SPA and as such requires an Appropriate Assessment.

The Marine Institute (MI) completed the Report supporting Appropriate Assessment (AA) in West of Ardara/Mass Road SAC (Site code: 000197) in October 2016.

It concluded that oyster faming activities in Loughras Mor would be:

"non-disturbing to the Annex II species found in Ardara/Mass Road SAC Site Code 000197"
"non-disturbing to the Annex1 habitats 1130 and 1140 and their constituent community types".

This puts the vast majority of the submissions received by your Department in context.

There is a common theme in many of the submissions which simply seem to try to discredit or undermine the work of the MI in relation to the AA for Site 000197. The MI are the competent authority in this regard, with a wide range of scientific expertise in house and having completed many Appropriate Assessments across a wide variety of habitats throughout our coastal SAC/SPA network in Ireland. One submission states that the reports are:

"clearly a generic form and poorly tailored to each region"

In reality, the scientific facts are emerging that shellfish farming is not impacting negatively on any of our bays around the Irish coast. In fact the opposite may be the case as many estuarine bird species now congregate around trestles in search of food particularly during partial tide cover. Green weed growth is purposely left to grow on some bags in late Autumn as this is a particular favourite of the over-wintering Brent goose when it arrives. The conclusions in the Loughras Mor AA simply did not support any of the claims made by the objectors about potential impact within the SAC. It is also worth noting that the submission from the Department of Culture, Heritage and the Gaeltacht also accepts the findings of the AA for Site000197. It is therefore no surprise to find the dismissive approach adopted towards the MI investigations in many submissions.

The Marine Institute's own submission includes other recommendations which the applicant is already familiar with being involved in the industry. For example, Naturalisation forms a substantial part of the content of a report by an expert Dr Lawerence Eagling of Queens University Belfast contracted by the Loughras Mor SAC Conservation Group. The flushing rate of Loughras Mor bay, the lack of consistent temperature/salinity supporting larvae survival and the general absence of suitable target substrate is the reason why there is no significant populations of native shellfish beds occurring naturally in the bay. In addition the applicant already adheres to the industry advice of the MI and uses triploid oyster seed on his existing sites. This of course offers a complete solution with regard to the potential of naturalization of Magallana Gigas in Ireland and is well documented. I would have thought such a fundamental safeguard surely worthy of a mention in the hypothesis on the potential of Naturalisation as outlined in the report by Mr Lawrence Eagling.

# Oyster farming and the Environment

We are only to familiar with the challenges facing everyone with global warming and greenhouse gas emissions. Ireland has a serious challenge ahead here and has just been voted the worst country in Europe by the Climate Change Performance Index for the second year running. Every coastal country is aware of continuing collapse of traditional fisheries in trying to meet the insatiable world demand

for seafood. Despite the submissions by the Irish Fish Producers Organisation unfortunately Loughras Mor has not escaped this with a ban on salmon draft net fisheries. These are difficult but necessary measures to attempt to try and stop the alarming decline in this species. Aquaculture is playing an important role in trying to meet increasing demand for seafood. There are ongoing challenges for finfish farming but not so for shellfish farming as it is a completely sustainable practice. For every kilo of oysters that could be produced in Loughras Mor for consumption would mean that several kilos of some wild fish species will not have to be removed from the ocean to produce the same. Unlike other ocean sequestration techniques oyster shell permanently removes carbon from the ocean as well as the atmosphere. Issuing these licenses would not alone represent a distinct economic advantage locally but would be an important endorsement of an activity which will make an important environmental contribution going forward. It is unbelievable that these factors are overlooked by the academics and others who have made submissions that rely heavily on spurious environmental concerns that are not supported in the AA.

The Directive requires that member states assess all human activity and their impacts within the SAC. This is especially relevant if the activity is commercial in nature. The movement of cattle along the shore to Derryness island or horse-riding on the sand is an example of such an activity. The relevance of Derryness island as a potential "submerged pine woodland" (Submission by Paula Harvey MA) further highlights the importance of knowing as much as possible about what might exist in our surrounding Environment. This is why the Appropriate Assessment process is invaluable. From an oyster farming perspective the claim that grazing cattle along the shore would be affected by the location of trestles makes no sense as the areas in question must be above High Water Spring. Similarly why would anybody consider placing trestles in the way of cattle if they were being moved to Derryness island?

### Water Quality/Designation/Classification

Many references are made to the presence of the Ardara wastewater treatment facility and how it will somehow impact negatively on shellfish production. The facility is a welcome piece of infrastructure for the bay and gives added security with regard to water quality and shellfish farming.

The Bay is not designated as a shellfish production area simply because at the time of designations were drawn up there was no existing licence or activity there. This does not exclude it from becoming a designated shellfish production area where it clearly has potential to grow sustainable seafood. The existence of the wasterwater treatment facility would help support such a process. Any large population of shellfish naturally occurring or farmed in any bay is a welcome resource for maintaining and monitoring the pristine nature of any estuary. I cannot believe that any of the Doctors or other Academics that made submissions citing a variety of environmental concerns and sensitivities in relation to an SAC/SPA once again overlooked these basic facts about shellfish farming. In fact one submission by a Dr Paul J Stewart states:

"there is also the issue of considerable amounts of fresh river water and sewage from Ardara running into the bay which in my opinion as a Doctor makes this site particularly unsuitable" An incredible statement especially as he states earlier in his letter that:

"the bay is also popular recreational sports, including sailing, kayaking and swimming. At low tide it is popular for walking and collecting cockles"

The Irish shellfish industry benefits from one of the most rigorous and respected food safety systems in place anywhere in the world. Water quality and the Classification process under the Directive can easily be monitored and implemented if a licence were to be granted. It takes 3-4 years to produce a market size oyster which will give ample time to complete the process. Equally the site could easily be included in the Biotoxin Monitory Program as operated by the SFPA / MI. This would include weekly water sampling to establish a phytoplankton profile within the estuary. It is worth noting at this point that Loughras Mor is most likely to fluctuate between an A and B classification which is typical of all the estuaries in Donegal. Ardara town sits at the top of the two estuaries with the immediate adjacent bay (Loughras Beag) moving between an A and B classification over the past two decades of oyster production. The surrounding land is peaty in nature with any river systems not greatly impacted by intensive nitrification or by intensive animal agriculture along their courses.

#### **Tourism**

A lot of submissions predict a collapse of the local tourist industry due to the visual presence and existence of the proposed oyster farms. The evidence in the country and especially in our county over the past 30 years is directly the opposite. A key component of the Wild Atlantic Way brand is the "Taste the Atlantic A Seafood Journey". This is the joint concept between Failte Ireland and BIM which is built in strategically to the brand to showcase top quality seafood available to tourists as they make their way along the Wild Atlantic Way. It is ironic that their supporting literature and their photographic media advertising all feature tourists enjoying oysters.

The example in Donegal Bay provides an excellent opportunity to look at the actual facts on the coexistence of both industries using the same resource. Donegal Bay had no oyster farming thirty years
ago. The local tourist industry was also just beginning to invest in expanding it's season and diversify
into different target markets. Today Donegal Town is the busiest and the stand-out tourist
destination in the North West. Over the years that courageous investment has paid dividends with
Donegal town now able to offer the most number of hotel beds in the North West. It has the only
five star hotel in the county which operates at the top end of the market. It is the hub tourist
location which is used as the base to stay and visit the rest of our county. It is now a year round
industry with no hotels or restaurants closing at any time of the year. This thriving industry has
brought far more visitors to the Donegal Bay than ever before engaging in walking, surfing,
swimming, kayaking, fishing, and generally enjoying the beauty of the area. In addition, other
activities have increased at a local level with far more recreational boat users than ever before. The
Donegal Bay rowing club was restarted less than ten years ago and is now one of the most popular

local clubs again. Many local maritime festivals throughout the county are now directly using local produced shellfish as their anchor theme.

The oyster industry in the Donegal Bay has grown over the same period from zero output to over 1,000 tonnes per annum. Today there are over 30 full time workers which are joined by 60 parttime workers during the busy Summer months. The best example of the symbiotic co-existence of both industries is to look at arguably the most successful marine tourism project in the entire North West which is the Donegal Bay waterbus. It passes the oyster farms several times daily during the summer. The oyster industry is part of it's audio presentation for tourists. We have a continuous stream of visitors who, after enjoying the waterbus tour walk directly out to our farm to see it at first hand. Most were unaware of it's existence before their trip on the waterbus. The potential of tourism and shellfish farming working together only requires foresight and simple co-operation by its participants as demonstrated in Donegal Bay. We should not be surprised by this positive interaction as Environmental & Food tourism is a rapidly growing sector with tourists actively seeking out the places of origin where they have eaten and enjoyed a locally produce food. One submission from a B&B owner claims that several American tourists were shocked at breakfast one morning on learning about these oyster farming applications. Unbelievable reaction and in direct contrast to a visit we had last year from a visiting group of Chinese people who had eaten Donegal oysters in Hong Kong. They told us that they could not believe the quality of the produce and simply had to include Donegal in their visit to Ireland. They were not disappointed.

Looking at the experience internationally, France is the largest European tourist destination with 82m people visiting annually. Mont St Michel monastery and island is the most visited tourist attraction outside of Paris. Wrapped around this tourist icon is Mont St Michel bay itself which produces 15,000 tonnes of mussels and 9,000 tonnes of oysters. To put in context, this is the entire Irish industry located in one bay of both species. All the local restaurants specialize in serving all the locally produced shellfish to tourists. A bowl of 'moule frites' or 'huitre natural de Mont St Michel' is the must do culinary experience while on a visit to the area.

The evidence and experiences both locally and from other regions is clear. Oyster farming if licensed in Loughras Mor would in no way impact negatively on local tourism, would mutually co-exist and provide opportunities for the sector instead.

#### Visual impact

This topic has been visited many times in the past as Aquaculture developed around the coast. It has been demonstrated time and time again that oyster farming in particular has been shown to have the least impact here. This is primarily because there are no floating structures and it is located between Low Water Spring Tide (LWST) and Low Water Neap Tide (LWNT). Loughras Mor is like every other bay in county Donegal with a tidal range in excess of four meters. This means any oyster farm would be covered by water for over 80% of the time. A person could go for a walk ten different times in a particular week and may only be aware an oyster farm existed on two of those occasions if at all. Even at full exposure at LWST it is actually hard to distinguish an oyster farm from the typical rocky foreshore surroundings. The bags take on the same colours and hues of the surrounding shore as the same sand/silt/seaweed rest on them as on the shore during tidal cycles. We have many

visitors who have told us they were only alerted to the existence of the farm when a tractor made its way out at low tide. Once again I am able to state this as I already operate a farm situated in Donegal bay. Oyster farming also exists in every other suitable estuary in county Donegal. These farms did not fall out of the sky overnight but were developed slowly over the last thirty years. The land surrounding Donegal Bay in particular is far more elevated than any of the land surrounding the proposed sites in Derryness. It would be virtually impossible to distinguish the farm while driving along the Ardara/Portnoo Road as trestles would be deployed in an West/East orientation between LWST and LWNT in 397B and 397C. It is not possible to see the proposed sites from Ardara town.

With regard to suggested impact on property values, it is worth noting that since oyster farming began in Donegal Bay the amount of houses built on surrounding land overlooking the bay greatly increased. The idea that these houses or even existing ones diminished in value then or since because oyster farming existed in the bay is simply ridiculous. The idea that a person is offended by the presence of an oyster farm over time any more than the presence of a land farm on the side of a mountain is not plausible.

The real issue here is simply that the establishment of oyster farming on a new site represents change for those in the immediate vicinity. It is an understandable that people are concerned but when mis-information about the proposed activity is circulated, as was the content of the initial social media postings, it makes explaining that change far more difficult thereafter. It is the real nature of the change that must be fairly evaluated in this process. It has been clearly shown that wherever oyster farming has established and is properly regulated it represents a clearly acceptable positive change that is absorbed very well by the surrounding environment and community. This is especially true when compared to other modern changes in everyday life such as wind farming, forestry plantation or general building development along our coastline which is visible 24/7 and can occur at a much more rapid rate.

Several submissions mention the process of Coastal Zone Management (CZM). What is sometimes overlooked by persons using CZM as a concept to further their cause is that CZM looks at the impact of all human activity in the coastal zone. The Loughras Mor SAC Conservation Group seem to forget that the most common human based activities along our coast such are industry, residential housing, recreational activity, and other forms of commercial activity (including land farming, fishing, horseriding, etc.) all should form part of a CZM plan as they can have the greatest impact. Fortunately shellfish farming activity within the EU and with regard to CZM is a very highly regarded activity as it's impacts are neutral and it's benefits are positive. This is primarily because it is an activity that if it had to cease for some reason could remove itself from where it was located in the coastal zone and leave the area exactly as it found it. Not many other human based activities can make the same claim.

The very filtration process of an oyster is now a key component in delivering and maintaining water quality. It removes suspended solids and is allowing plant life to return to otherwise turbid, over polluted estuaries. The 'billionoysterproject' in New York is the leading project in this regard. The presence of a vibrant shellfish industry ensures a minimum water quality standard must be legally maintained (Classification and Designation Directives) and more and more the local shellfish farm is the go to activity to monitor many environmental and water quality initiatives. Even the very latest

research is discovering the important role that shellfish could play in sequestering carbon and nitrogen directly from our oceans going forward. The fact that an environmentally conscious group such as the Loughras Mor Conservation Group has not made these basic connections when engaging with management tools such as CZM, SAC habitat preservation and the health of the marine environment is alarming.

# Submission by Donna Callaghan, Assistant Planner, Donegal County Council

The Aquaculture industry in Donegal is now established in the county for over thirty years. Donegal is now the largest producer of farmed seafood in Ireland. In 2017 Donegal produced 10,781 tonnes of farmed seafood with a first point sale value of €65.1m supporting 459 full time jobs (An Bord lascaigh Mhara). It is now more valuable than the entire National inshore shellfish fishing sector (crabs, lobsters, whelks, native oysters, periwinkles etc) which in 2016 landed 22,969 tonnes valued at 57.36m. This is a resource which will always fluctuate (in 2015 it yielded 15,128 tons with a value of 37.82m) and is subject to increasing quota restrictions as the scientific advice on the future of all our traditional fisheries is stark. Our most valuable species pelagics and prawns suffered further cuts only this week in Brussels with Donegal again the most impacted county.

In the face of these challenges the Aquaculture industry in Donegal is now vital and a constant resource. It is also one of the most rurally located industries in Donegal which in turn is one of the most rural regions in Europe. Aquaculture has become the very heartbeat of these local economies which were decimated with the decline in inshore fishing in particular. Unfortunately this is now a part-time, supplementary activity for most involved. Those that diversified into Aquaculture took with them that invaluable experience associated with generations of seafaring tradition and are now generating a sustainable income from the sea again. I think it is time that everyone embraced this much needed change.

This success story did not happen on it's own. Donegal County Council has been instrumental in helping this industry develop to the level it is today. It did this by recognising its potential at an early stage and by implementing key policies in successive County Development Plans. This template delivered the necessary infra-structure (rural roads, piers and facilities) to allow the industry prosper. In the face of crippling unemployment and constant emigration it is a rural economic success story for our county. For this reason I am not aware of Donegal County Council ever making a negative submission with regard to a shellfish aquaculture licence before. I cannot believe that the submission by an Assistant Planner, Ms Donna Callaghan is representative of this organisation's statutory position given the stark reality facing seafood security, it's own policies, investment and responsibility to the economic welfare of people within this county.

The submission by Ms Callaghan is strikingly similar in tone and content to a lot of the other submissions/objections received. However it is significantly different in two ways as the author refers to existing licenses which do not exist and assumed that the AA was submitted by the applicant. All the subsequent concerns that the author makes regarding the AA (generalization, scale, lack of inclusion of field data, best scientific knowledge etc etc.) are not supported in any way by analysis or data. However in striking contrast they are dealt with in great detail in the AA published by the competent authority in this regard, the Marine Institute. I do not know what

marine based expertise the author is relying on to question the findings of the AA. I do know the expertise and resources available within the Marine Institute in completing this process. In my opinion it is clear that the perception by the author that the AA was submitted by the applicant is relevant.

The author also makes reference to the actual policy text relating to aquaculture contained in the current County Development Plan.

"the council will support the sustainable development of onshore/ancillary aquaculture developments to maximse the potential of the sector in terms of employment and product export"

This application to farm oysters in Loughras Mor bay is a practical example of the very implementation of this policy. This is a policy which has already delivered so many jobs and wealth to many rural parts of our county. In a county with the highest unemployment and emigration rate in this country what is the point in formulating successful policies for your county and then failing to act on them. This submission is completely baffling and entirely at odds with its organisation's own stated objectives.

The report includes stated objectives in relation to Natural Heritage and Built Heritage. The author must be aware that the Department of Culture, Heritage and the Gaeltacht are automatic statutory consultees. Their submission has raised no concerns here. This is important also when considering the submission of Paula Harvey MA. The existence of any oyster farm on the proposed sites will not impact negatively on any Archaeological or Historical relevance of the surrounding area any more than activities which currently exist impact on them now. Unlike a lot of other modern structures trestles can be simply removed if some important archaeological discovery were to be made in the vicinity. The Department of Culture, Heritage and the Gaeltacht know this.

Even basic research will discover that farming oysters was one of the first recognized attempts by mankind in moving from the hunter/gather era to farming food. For example in Europe it is an ancient practice and was first practiced by the ancient Romans as early as the 1<sup>st</sup> century BC. The historical references to the Salmon Fishery and seaweed farms in this submission is truly relevant to our ongoing relationship with the bay. Shellfish farming nowadays merely represents a continuation of our age old endeavours of trying to source food from the sea. However it is distinctly different in one way. It represents the first sustainable effort ever in using our estuaries in this regard. It utilises all that we know now about our need to engage in activities which are environmentally sustainable. Surely the arrival of this type of activity at this stage of our marine heritage is worth recognising now while the generation that has started it is still alive. Perhaps the United Nations view of our living heritage is most apt and I do not think we should wait hundreds of years in this case before we celebrated it.

"Our living heritage provides communities with a sense of identity and is continually recreated in response to their environment"

Finally the report by Ms Callaghan from Donegal County Council makes reference to the impact on tourism including Flag beaches, Natura 2000 sites and Especially High Scenic Amenity. The entire Donegal Aquaculture industry is already located in coastal areas such as these and has been since the very beginning. In relation to tourism it has been referred to earlier in this document that the evidence of potential conflict is directly the opposite. The reality in 2018 is the revenues generated by the tourist and aquaculture sector in the county have never been higher.

I am engaged from the very beginning in an industry with a very bright future in a county with a clear natural advantage for same . For these reasons I reject entirely the conclusions made in this submission as they are completely at odds with the expertise used to compile the other statutory submissions and with the reality on the ground. I appreciate entirely the value of the public process and the opportunity it affords me to answer objections in an attempt to try and better inform members of the public of the facts about my livelihood. However it is totally unacceptable and extremely frustrating to see a submission of this nature and at this stage of development of our industry . The submission focuses solely on trying to generate a negative perception in an official capacity despite the access the author would have had to all the real information . I can only assume that the author is either unaware or ignores the practical and compelling evidence all along our coastline. It is unthinkable that if this was the depth of our vision thirty years ago we would not now have 459 jobs and associated wealth generation in our most rural locations today.

### Access

Many submissions refer to access using a public road L7773. I am not aware of the need to have a Health and Safety statement to use a public road. Donegal now produces 2,480 tonnes of oysters per annum. L7773 is a road typical of the rural network of roads currently used by oyster farmers in our county that ultimately lead out onto the foreshore . In fact nearly all the food we produce ultimately begins it's journey to market on roads such as this. I have used such a road to access my current farm for the past twenty years with no accidents or negative experiences. It meanders through a residential area in which I live myself. I use small to medium sized tractors identical to those used in local agriculture . I access the foreshore at a place known locally as the Holmes beach. It is popular year round for walking and especially popular in good weather in the Summer. It is also the location for Donegal Town Rugby club which is a busy sport and recreational facility. Most of the tourists who visit my farm discover its existence at this location also . The location that my farm currently exists in is a more widely used area than Derryness/Carn but has very similar infrastructure . The reality is Donegal is a rural county but despite this operates in a perfectly harmonious manner when the spirit of tolerance is practiced between all users utilizing our infrastructure. It is the potential of a commercial activity like oyster farming that usually acts as a catalyst for the local authority to make improvements to a road if required. This is how we jointly progress the quality of our infra structure. No dramatic change would be required to L7773 if licences were granted. It is not like a wind farm installation or building houses where heavy load access is required. In reality and by applying a more broadminded perspective, oyster farming in the bay would actually provide an opportunity to address some of the suggested deficiencies of L7773 leaving a greatly improved road in the long-term.

Access route on the shore is maximum 10 m and does not get wider with increasing size of licences as suggested in one submission. The reality is as oyster farming developed in scale in bays in Donegal nearly all the current participants have ended up in facilities directly beside the resource. This is exactly what happened in Donegal bay with most tractor activity removed from the public road network. It will be exactly what will happen in time in Loughras Mor if licences were to be granted.

## Submission by Mr Paul Boyle

The majority of Mr Boyle objections are all covered in this document with the exception of two points he has made. Oyster farming is a very labour intensive activity. The only mechanisation in the farming process occurs in the onshore facilities where oysters are graded using a standard line containing a hopper, sorting belt and bagging machines. These are used to sort oysters by hand and put back into bags at a target weight before returning to the sea. It takes five people to operate one standard grading line. Everything other activity on the farm is also done by hand (unclipping oyster bags, loading trailers, returning graded stock etc.). This is why oyster farming is a very worthwhile activity in the local economy as it has one of the best jobs/kilo ratio of seafood produced. In fact nowadays oyster farming requires one full-time and up four part-time for every 25tons of oysters produced. The majority of part-time work is full-time in nature during the Summer with the same crews returning at the weekend throughout the year. It is great opportunity for introducing young people in particular to the workforce as being manual work it has a generally very positive impact on their health and wellbeing. It is important to note also that onshore buildings are exactly the same as your standard agricultural building located on every land farm in Ireland and an integral part of our rural architecture as we go about normal daily lives.

In relation to the applicant's expertise which Mr Boyle states:

"falls ridiculously short of what would be expected...."

I don't know what Mr Boyle expects as being a suitable applicant for oyster farming but I can confirm that I have been involved in this industry since the very beginning. After completing the Leaving Cert I applied and was one of a first group of students to graduate from Galway Regional Technical College in 1987 in Aquatic Science specializing in Aquaculture. This was the first Aquaculture qualification available at the third level in this country. I started my farm then and returned to college to complete an Honours Business Degree from the University of Ulster. Over the years I have completed all the useful BIM upskilling courses which have included, , Purification Design & Operation, Exporting Skills ,Food Safety, HCCAP & Legal Requirements, Boat Handling, Crane Handling Certification, Health & Safety and Seafood Marketing Techniques. I am eagerly awaiting the next one.

I feel this expertise coupled with thirty years experience in helping grow an industry in Donegal Bay which now supports over thirty fulltime and over fifty part-time jobs should have left me with a sufficient skill set to do something similar in Loughras Mor.

#### Summary

I hope that I have demonstrated that, in my view, that there are no reasonable objections received which conflict with the public interest and therefore prevent oyster farming from existing in the future in Loughras Mor bay. In contrast, there are many valid reasons to try and encourage the industry to locate there which include:

- Already well established and integrated in our bays
- Support the continued development of an excellent marine industry for our county
- Exploits a rural natural and competitive advantage
- Create long-term and sustainable employment
- Huge potential for value added
- Help bolster local economy through need for a variety of service providers
- Contribute positively to all Environmental & Global Challenges ahead
- Improve and safeguard a clean water resource for everyone
- Enhance the Historical & Marine Heritage of the area
- Alleviate pressure on traditional fisheries
- Secure an entirely sustainable source of seafood
- A food source with significant health benefits
- Consistent with all National Policy and European Directives
- Will co-exist harmoniously with all other users
- Will support any tourism initiatives in the area
- Is regulated and supported by a rigorous licencing system
- Is regulated and supported by ongoing Marine research programs
- Is underpinned by strong National Food Safety Regime & Marketing Programs

We can state the above as they are supported by facts. This is the reality on the ground with the development of oyster farming over the past thirty years in our county. It is a rural success story brought about by the joint effort between committed industry operators and multiple State Agencies with EU support. To abandon this formula now just as the real potential and value of the sector is starting to emerge would be economic madness for the county. There is no other stretch of coastline in the world which has the natural characteristics and generations of hard earned sea faring tradition to deliver on the opportunities that now exist worldwide for top quality oysters.

Conor Reid

**Donegal Oceandeep Oysters** 

Mr Campbell, Divisional Engineer BH 4/2/19
Ms O Donovan AFMD
RE: Aquaculture licence applications, T12/397, T12s Mór Bay – MED comments on submissions made by statutory consultees and the public.
Ms Jane O'Mahony's email of 15/11/18 with attachments and Mr Oisín O'Kelly's email of 10/1/19 with attachments refer. My comments on each submission are as follows:
Inland Fisheries Ireland (submission based on its 27 Sept inspection)

# T12/397

Visual - If all three sites in this application were fully developed (with trestle coverage as proposed in layout drawings submitted) some measure of impact on public views locally would indeed be generated. Public views from R261 (Wild Atlantic Way) of sites 397A,B & C would be few in number and at long distance (>1.5km) I do not anticipate a significant visual impact to result. No designated views or prospects in County Development plan are affected by T12/397. Certain public views of the Bay from local rural roads at Derryness, Shanaghan and Crockalee would be affected by full

development of the three sites. Much of the nearshore land around the Bay is classified as Especially High Scenic Amenity so sensitivity to visual impact may be considered high where public views of the development might occur in such areas. On the Point Road on west side of Ardara Town (— at Drumaghy and at Kennaughty townlands) there are short distance public views from the road which would be impacted on by development of site 397C (range 650m and 300m respectively); elevation of viewpoints is low; magnitude of impact would be low in both cases at times when trestles are exposed at lower tidal stages. My assessment is that visual impact would be moderate to slight from the Point Road where site 397C would be visible.

In summary my opinion is that the visual impact that would arise from all 3 sites combined (if fully developed) as seen from main roads and public view points will be below significant levels – it will be at moderate levels at a small number of locations on the Point Road or side roads to the north from it. Overall I don't see that visual or landscape impact would be of such significance as to on its own rule out development of these 3 sites. Note there are other reasons why reduction in area of these 3 sites may be required – in which case the likely landscape and visual impacts would be lower again in magnitude.

Navigation- It is true that there is potential for blocking of the low water channel by this development. I don't think boat usage in the Bay is frequent but some related to draft fishing may well occur. The northern part of 397C intrudes significantly into low water channel as does south west edge of site 397B. It would not be appropriate on navigation grounds to allow all of site 397B and 397C to be licensed. The westernmost part of site 397A would lie in the channel but would not block it. The low water channels in this Bay do move from time to time. The placement of large numbers of trestles in the Bay could also lead to further changes in low water channel positions if done in areas of mobile substrate.

Salmonid migration – it is correct that the development of the three sites could create some obstruction to salmonid migration. It is likely that the sites would hinder but not completely obstruct migration through the estuary but certainly given current position of low water channels the development of these sites would hinder passage through the channel of migratory fish. Some reductions in site area would be necessary to mitigate such an impact.

Impact on amenity – amenity usage of the inner and central parts of Loughros Mór Bay is at a fairly low level in my opinion – it is mainly local usage. There is a question of development extent scale here. Development of all three sites in their entirety would create a significant footprint running NW to SE across the central part of the Bay. Sites 397B and 397C however do not overlap with significant amenity usage – apart from possibly blocking low water channels for amenity boat usage (low frequency anyway) . The northern part of 397A does extend up Carn beach and trestles that far north would intrude into an area that is more accessible to the public and of public amenity value.

My overall assessment of this submission:— an important issue regarding application T12/397 raised by IFI is the potential blocking of low water channels - this could have significant impact on migratory fish access routing through the estuary and possibly impact on small fishing boat access. Oyster site areas 397A, 397B and 397C as proposed would need to be reduced to take account of the likely intrusion onto low water channel/subtidal areas. The overlap of proposed development with amenity usage would I think mostly apply to north part of 397A. Refer to recommendations in my

report of 13/4/18 in which reduced areas for all three sites are proposed in order to avoid shifting sands, high ground and obstructing low water channel for fish migration – the area reductions recommended there would also help reduce potential for conflict with other foreshore usages such as general navigation access/boat movements, commercial fishery for salmon ( when open), kayak users, seaweed collection /transfer operations and amenity usage of Carn beach.

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#### Department of Culture, Heritage and the Gaeltacht (email 21/9/18)

Nature Conservation recommendations made by DCHG focus on harbour seal habitat and potential introduction of artificial barriers – I think these matters were addressed in the Appropriate Assessment study carried out.; known moulting, breeding and rest sites for harbour seals were identified as being located at least 700m west of the application sites (refer to figures 4-5 to 4-7 in the appropriate assessment). Potential interactions between shellfish cultivation activities with Harbour Seal were considered in the appropriate assessment – interactions included the issue of access to suitable habitat and number of artificial barriers. The assessment concluded that "the main aspect of the culture activities that could potentially impact the designated species is the physical presence of trestles that may restrict access to certain habitats. However, given the locations of the structures and the low level of activity proposed it is concluded that activities would be non-disturbing to the Annex II species found in West or Ardara/Maas Road SAC (00197)". Given the above conclusion as made in the appropriate assessment I don't think the issue needs to be readdressed at this point. It may be worth noting that it is likely that shellfish structures will in any case probably not be permitted to intrude significantly into low water channels in the central/inner Bay area ( for fish migration and substrate change reasons) and this should provide further reassurance that low water channels will remain largely unobstructed for passage by seals .

DCHG also raise the issue of whether trestle placement might alter the hydrography of the Bay with resulting habitat impacts. I think this is a valid concern given extensive areas that were applied for in mid Bay by Donegal Ocean Deep Oysters for trestle placement.

Sites 397B and 397C effectively span the bay and full placement of trestles over them could redirect low water channels and create new barriers to fish/sea mammal movement where such barriers did not exist before. Foreshore profile change could have unintended consequences for the shellfish farms themselves with trestles sinking in deeper water or at the other extreme becoming buried in loose sand build-up. The proposed trestle layouts provided by Oceandeep Oysters Ltd. show full coverage of site 397C and almost full coverage of site 397B (a narrow channel area is left undeveloped). My own opinion is that if such dense trestle placement were to proceed as shown on those layouts then significant change to shore profiles in the Bay might well result.

The sub areas recommended in my report of 13/4/18 on T12/397 were intended in part to avoid development on mobile sand areas and to help minimise potential for new shellfish farms to artificially force unwelcome change on Bay foreshore profiles. While I have reservations on this issue – particularly in relation to east part of site 397B and the sub area recommended there – I think the significant area reductions proposed in my report would go some way to reducing concern about potential impact on Bay morphology – I would still expect bay profiles in this case to change in response to even the small trestle area developments that I put forward in the 2018 report but degree of change is likely to be lower in magnitude. Note water quality may rule out some of these subareas in any case.

Marine Institute might be the best source to get advice on the final question raised by DCHG - whether screening for proximate SPAs is required. I would have thought there is no issue arising.

# Department of Housing, Planning and Local Government (email 11/9/18)

This submission recommends that applicants demonstrate by monitoring that the area is suitable for shellfish aquaculture (water quality and shellfish health monitoring programme) in advance of a decision to licence. I think it may not be a reasonable proposition to expect applicants to monitor water quality themselves in advance of a licence application decision. The SFPA who are the relevant authority on shellfish waters classification do not have monitoring data from the Bay in recent years. In their submission SFPA recommended that monitoring and classification be done in advance of commencement of shellfish operations. Note in any case that a shellfish farm's access to market will ultimately be influenced by /bound by the results of ongoing bacteriological and biotoxin monitoring programmes once that farm is set up.

# Donegal County Council (Planners) (21/9/18 email + attachment)

Cover letter refers to renewal of existing licences (which is not the case as all are new applications). Habitats Directive issues are dealt with in Appropriate Assessment work done. Designated views across Loughros Mór Bay as identified in County Development Plan (2018- 24) do not include the proposed sites and will not be adversely impacted on based on my inspection of maps.

Archaeology – sites in question are close to Shanaghan Lough and are at least 200m inland and at least 600m from nearest point on site 397C, 900m from nearest point on 397B and 1350m from 397A – I don't anticipate there is an issue given separation involved. Because of being a significant distance away the proposed aquaculture developments on Bay foreshore will not intrude visually or physically on these inland archaeological sites in my opinion.

Tourism/Wild Atlantic Way – most of proposed development sites have little or no visibility from WAW. The east part of site is 950 metres away from Owenea Bridge from where it would be visible (briefly) to passing users of the R261; Visual impact magnitude in this mid–distance view would be low and likely to result in visual impact of no more than moderate scale significance in my opinion. Public views available elsewhere on the local road network would be in the slight to moderate range. Significant impact on tourism in the Ardara area is unlikely in my opinion.

My assessment is that the issues raised in the DCC (Planners) submission on the applications would not be a basis for license refusal.

# <u>Irish Water</u> (12/10/18 email + attachment)

In my 2018 reports on these applications I had recommended that Donegal County Council be consulted for their opinion on advisability of locating shellfish growing sites on Loughros Mór Bay (they had given guidance in 2002 advising against aquaculture development in the Bay – this was before provision of secondary treatment plant (in 2008) but in knowledge of proposed outfall point). Given transfer of responsibility for the sewerage schemes such opinion or guidance would now have to be sought from Irish Water (who have taken over the wastewater treatment utility for Ardara).

This submission made by Irish Water does not address the question of current suitability of the Loughros Mór Bay waters for proposed aquaculture. It provides information on distances from outfall to the various sites and suggests only that Department may wish to consider proximity of wastewater discharges when making a decision.

I had hoped that the significant issue of water quality suitability would be addressed in the Irish Water submission on the three applications. Ultimately it will be up to Minister to make the licensing decision on these applications but more specific guidance from those involved with wastewater treatment provision would have been helpful.

Note that the outfall to site distances as provided by Irish Water are incorrect. Our recent site surveys identified the outfall location 525m further to west than previously thought and located at south corner of site 397B. Irish Water has since confirmed this is the case.

# SFPA (2/10/18 email + attachments)

In my report on these applications (April 2018) and in report of Gráinne Duggan (2011) MED had stressed the importance of early consultation with SFPA for their opinion on advisability of locating shellfish growing sites in inner Loughros Mór Bay.

The submissions provided by SFPA on each of the B applications are brief and do not provide guidance on water suitability for shellfish growing – the letter states there is no aquaculture in place, there is no SHELLSAN/biotoxin monitoring in place and that responsibility for production of safe food rests with the producer.

As with Irish water submission I am concerned at lack of guidance available on the water quality issue from SFPA but accept that there is no data from monitoring programmes available to them at this point.

I note their recommendation that E coli monitoring and classification (and biotoxin monitoring) be done in advance of commencement of shellfish operations.

It is unlikely that DAFM can have sanitary survey, monitoring and classification of Bay waters done in advance of a licensing decision – these efforts are required by law for shellfish to go to market from an area that is actually growing shellfish.

The SPFA Code of Practice for the SHELLSAN programme states that for preliminary (provisional) classification of an area, at least 12 samples should be taken from each identified sampling point not closer together than fortnightly. This means that a six month period at least would be required with shellfish growing on the site on a test basis at least.

I expect that based on SFPA submission that a new licensee would have to accept an initial test period where a small number of test trestles only are put out on licensed site areas for shellfish flesh testing and biotoxin monitoring purposes – after which the licensee could proceed to develop the site areas (– unless the test results required closure for a period).

The shellfish testing outcome will lead to the classification process. In the case of a finding of Class A waters shellfish harvested can go direct for human consumption – if class B or C depuration/relaying or heat treatment of the shellfish would be required before going to market.

# Irish fish producers organisation (letter 29/8/18)

This submission focuses on potential for impact of proposed aquaculture development on draft netting seaward of a line drawn from Rusheenroe Point to Ranny Point North.

It should be noted that the salmon fishery is in decline in recent years especially; numbers of fish surplus to conservation limit was 320 for the 2017 season (half of which were assigned to the commercial fishery in the estuary and the other half to anglers in the Owenea/Owentocker rivers) and it was zero in 2018 and in 2019 (rivers in Catch/release only category).

I think the IFPO overstate the scale of the potential problem.	In reality the boundary line means that
the outer (western) sites only could have an impact on the	e fishery – of these sites

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397A which with proposed trestles in place might locally impede netting of salmon by boat – should it occur in those areas.

The counter argument could be made that neither site 397A extends across the Bay or extends significantly into deep water and their development would still leave significant fishing width across the Bay unaffected by aquaculture. I would argue that impact on the salmon fishery is likely to be reduced further when the sites in question are reduced in extent (as they would probably have to be in any case (for other reasons)).

My assessment is that impact on salmon fishery would be limited in extent and significance. Some development of aquaculture east of the boundary line would have no impact and carefully sited development on the west side of the fishery boundary line could in my view still co-exist with salmon fishery without significant negative impact.

(letter 14/9/18

The proposed aquaculture development is on mobile sand substrate which itself is hardly of particular geological significance and is replicated over many other areas of the Bay and wider coastal area. The structures involved are surface structures and removable. There is no basis to suggest that geological evidence will be "irretrievably lost" if proposed aquaculture proceeds.

The proposed aquaculture sites are not on or near any recorded archaeological monument or site listed in the national database. Prior survey is not required in my opinion. Refer also to my comments on submission by Donegal County Council planners.

The pine tree remnants at Derryness Island are given major relevance by the author of this submission. The author of the submission does not identify the exact location of the pine tree stumps area at Derryness but suggests the location would be "completely covered by at least one" of the proposed farms. It needs to be pointed out that aquaculture structures would not in any case be placeable on areas with protruding tree stumps or in soft ground. I don't anticipate that a difficulty would arise were any such overlap to occur between a licensed site and tree stump area as trestles or clam mesh would have to be placed to avoid obstructions or uneven ground where it might occur within a licensed site. The trestle and clam net structures themselves are temporary and can be readily removed if necessary. The sub areas that I recommend for site 397A and 335B to west of Derryness Island did not show visible pine tree remnants at surface on recent inspection surveys of that area by Marine Engineering Division.

The Spanish Armada vessel referred to went aground I understand at least 3km further to west of site areas under consideration (at mouth of Bay). Suggesting that cannon or munitions would have been buried in intertidal aquaculture development area seems an unlikely scenario to me.

The submission also refers to history of Loughros Mór salmon fishery – potential of impact on the fishery were addressed in my comments on submission by IFI and Irish Fish producers organisation.

In summary my opinion is that the proposed development of shellfish farms in the Bay should not require prior historical research as shellfish farming because of its proposed location within the Bay and its low physical impact nature will be unlikely to have a significant effect on local topography or on existing structures in the area (be they man made or natural). If as in this case the sites licensable will almost certainly have to be scaled back in extent (for other reasons) it appears to me that the grounds for the concerns raised would also be much reduced.

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Dealing with each of the 4 bullet points in turn, my observations are:

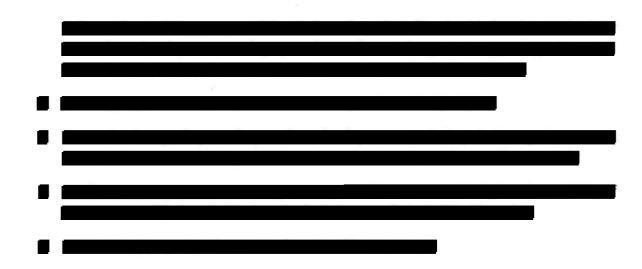
Special Area of conservation – impact consideration on the SAC is given in the Appropriate assessment.

Special Protection Area -impact consideration on the SAC is given in the Appropriate assessment.

Recreational use impact – most of the proposed development area is on foreshore with little overlap with recreational activity area – the exceptions would probably be the south end of Carn beach and low water channels in the estuary. With careful site area selection/area reduction it should be possible to ensure impact on the various recreational usages would not be at a significant level.

Aesthetic impact – landscape and visual impact that would occur on public views of site will I expect be no higher than moderate in significance.

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# comments of 14/9/18 on T12/397

- Application Form Information: Trawnacasey is a reference to an identifiable geographic feature in the Bay to help locate the proposal. is correct to say that it is not a townland two other locations (which are townlands) are also listed in the advertisement (Derryness and Shanaghan)- the advertisement I believe meets the purpose of identifying to the reader what parts of the Bay are the subject of this application.
- 2. Access Roads; the access route proposed from HW mark at the end of the L7773 road and across foreshore to sites 397A and 397B would be usable for aquaculture vehicles accessing those 2 sites in my opinion. I cannot say the same for the same access route being suitable to access site 397C. Traises questions about the crossing of the channel in his submission. There is a hazardous and deep channel to be traversed to gain access to site 397C from the north I don't think it is a practical access proposal for site 397C.

As noted earlier I think the land based section of the access route to the site from the R261 i.e. the local rural road L7773 is of a standard that is not unusual for rural roads in the County and while it is narrow and in need of ongoing repairs it would in my opinion be acceptable for some initial start-up phase aquaculture traffic.

SAC – Appropriate assessment is done to the required standard, I expect.
 does raise the issue of a proximate SPA (Skeskinmore) – a general question was raised on this also by DCHG – Marine Institute can best advise whether the screening for adjacent SACs was sufficient or whether SPAs also needed consideration.

- Recreational usage; comment as for 405A
- 5. Aesthetic impact comment as for 405A
- 6. Diminution of property value not relevant to this assessment.

# Mr Conor Reid (applicant) -response to objections made (letter of 20/12/18)

Mr Oisin Kelly's email of 21/12/18 and attached letter refers. Some of the arguments put forward by Mr Reid lack objectivity and the content of the response is rather disparaging of others in places.

Mr Reid maintains that shellfish farming is not impacting negatively on any bay around the Irish coast etc. There have been a number of examples of poorly managed shellfish farms and disused farms at various locations over the years which would contradict that claim.

I note the factors put forward regarding reasons for no native shellfish in the Bay which are plausible enough. The issue of cattle access is I suspect due to cattle being walked along foreshore to access certain grazing areas in Derryness (this was mentioned on an RTE programme Ear to the Ground...).

Some comments made on water quality are reasonable — the area could become designated shellfish waters following suitable monitoring. However the reference made to the existence of the wastewater treatment facility is selective — Mr Reid states that the improved treatment level would support the designation process and that is true as far as it goes — but the presence of a town sewage outfall in close proximity to some of these proposed shellfish farm sites is overlooked in Mr Reid's response and the outfall location must be of concern especially as initial dilution for the discharged effluent is quite limited at low tidal stages —when tide is out dilution is provided by freshwater river flows only. The claim that shellfish farming will improve and safeguard a clean water resource for everyone is certainly overstating the case in my opinion.

Mr Reid makes claims about waterbus in Donegal Bay passing his farm — in reality it is another operator's farm that is passed in Donegal Bay. On the tourism question there are valid arguments on either side. In these particular cases the development of trestle sites on or close to Carn Beach may impact negatively on the usage of that area and the question would be how to ensure it does not become a significant scale impact – some form of restricting the development areas probably does need to be looked at if amenity and shellfish growing usages were to co-exist on that foreshore.

The Donegal County Council planning objections are similar to views that they have expressed elsewhere on aquaculture proposals in Lough Swilly and Trawbreaga and Loughros Beg and I consider they are reasonable in expressing those views. I think Mr Reid is wrong to suggest that queries raised are invalid. He is also selective in quoting from the County Development Plan.

The question of the access road is discussed and points made about it by Mr Reid are reasonable. The potential impact of heavily loaded trailers moving back and forth needs to be balanced against the fact that other heavy vehicle movement occasionally occurs on that road related to house construction etc. Maintenance of that road is required anyway. Mr Reid downplays the equipment he uses to "small to medium sized tractors". They use extra long trailers and few of the tractors used these days would fall into the small category in my opinion.

The point made about much of the farm work being done by hand is a reasonable point – but more mechanisation is coming in.

Mr Reid does have extensive experience and training in oyster farming and it probably was not reflected in the sketchy application form details provided with the application. To be fair to him the original application dates from some years ago and it could probably have done with some updating and better detail provision now. However none of the applicants went to a great deal of trouble in presenting detailed proposals in their applications which might have gone some way to improving understanding by consultees of what exactly they were proposing.

# Consideration of water quality

In 2018 MED reports on these three applications (six sites) and in previous reports for this Bay we have stressed the important issue of water quality and questioned suitability of these waters for shellfish culture. I had expressed the hope in 2018 reports that Donegal County Council / Irish Water or the SFPA might give DAFM some guidance as to what areas of the Bay (if any) might be considered acceptable for shellfish culture in the context of upgraded secondary level treatment of the sewage discharge from Ardara town since 2008. The submissions made express concern and recommend monitoring but no clear guidance in terms of what areas would be acceptable has been ventured in the submissions made. Irish Water and SFPA do not rule aquaculture in or out in this Bay on water quality grounds.

While not recommended by any of the statutory consultees it seems to me that an exclusion zone for licensing aquaculture in the vicinity of a town sewage outfall would be a sensible approach – such licensing exclusion areas have been used elsewhere e.g. Carlingford and Omeath in Carlingford Lough. This approach of not licensing within a zone around a main outfall can be justified on the ground of expected low water quality in that zone.

Note that the survey information collected by MED in the Bay In January 2019 identified the primary outfall discharge point for Ardara sewage scheme to be at the south corner of site 397B - prior to this we had understood it was located some 500m further to east. We contacted Irish Water seeking clarification on the coordinates of the discharge point. They have confirmed that the outfall is at/close to coordinates 171679,391662 and discharges within site 397B/close to 397C as shown in map overleaf.

For shellfish farm licence application decisions DAFM will need to come up with a provisional exclusion zone around this outfall point – in principle it is not appropriate to locate shellfish farms too close to a live sewage outfall. Within that exclusion zone shellfish farming should not be licensed on a precautionary basis due to expectation of poor water quality where initial mixing of effluent with receiving waters takes place. It would not mean that water quality outside the zone is adequate – Shellsan programme testing etc. will still be required to establish same.

I suggest that the exclusion zone be defined by a circle of a suitable radius centred on the outfall point.

Based on the following information -

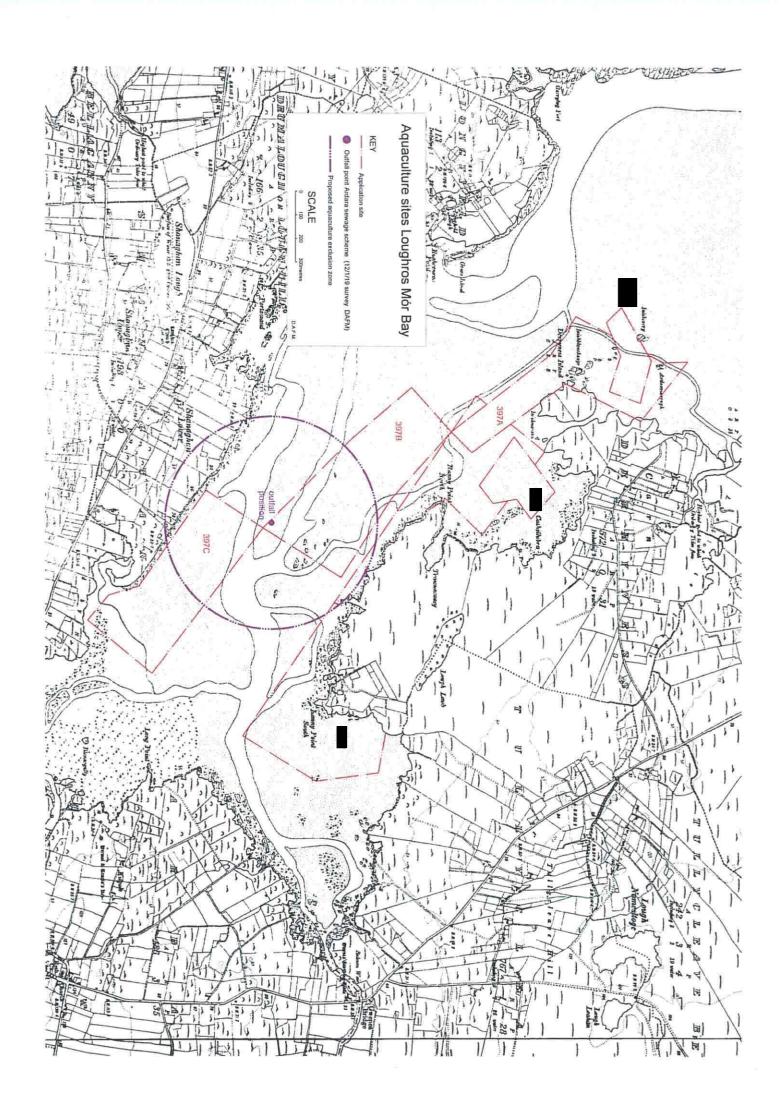
- -discharge is continuous,
- -discharge location is 171679, 391662
- -exclusion zone radius 450m (as in Carlingford outfall case).

I have drawn my suggested exclusion zone (for water quality reasons) on the map overleaf.

It shows that significant portions of sites 397B and 397C (the sites closest to the outfall point) would fall within such an exclusion zone. The centre part of site would also be affected by such a zone.

In due course if shellfish farming is licensed in this Bay and monitoring data becomes available the site areas will be classified in due course – and it may be appropriate at that stage to increase or decrease the extent of such an aquaculture exclusion zone.

Note that besides receiving water quality there are other reasons such as excessive depth, potential channel obstruction, access issues and impact on morphology that could recommend against shellfish farming in certain areas close to the Ardara sewage outfall point.



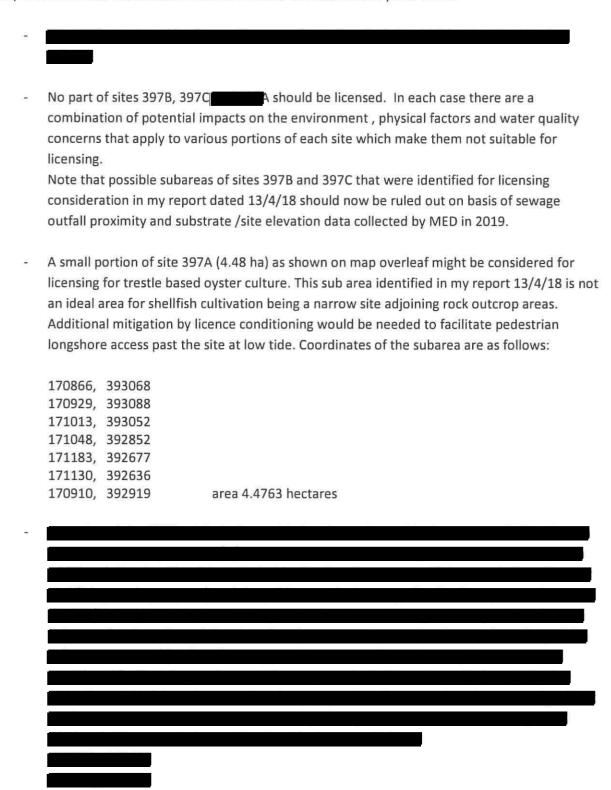
# Conclusion

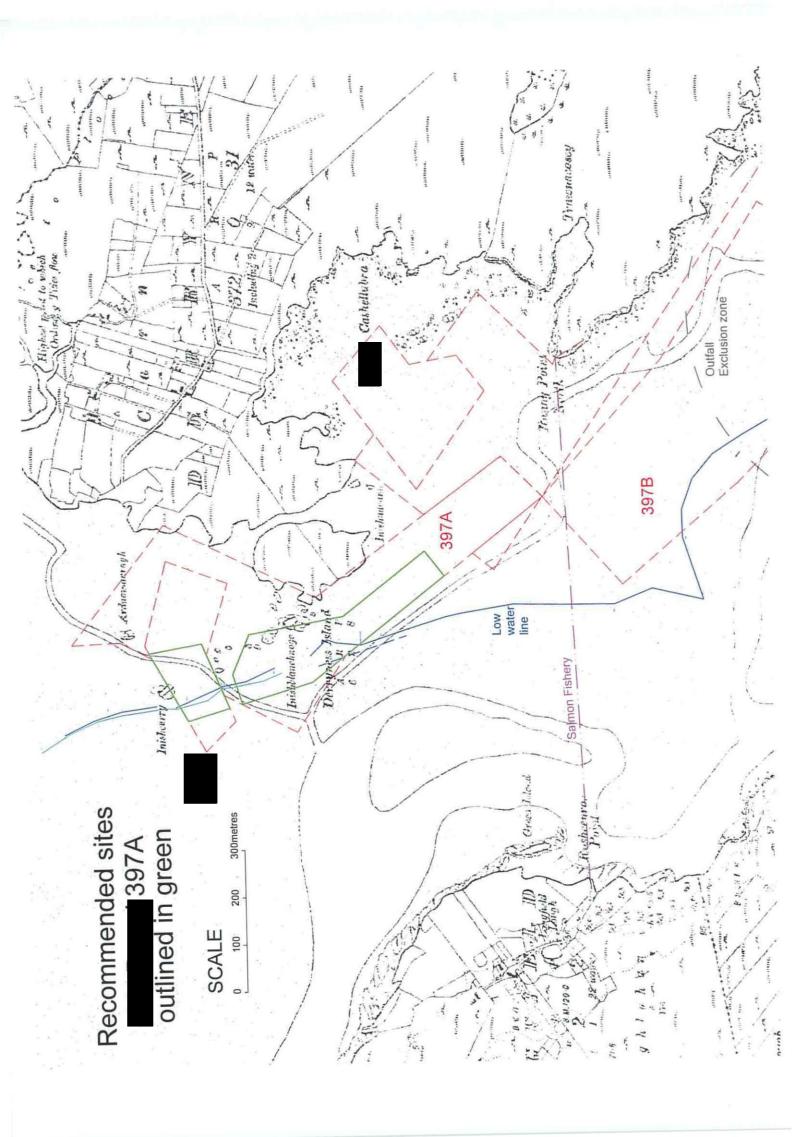
Based on my 2018 reports on the individual applications and as further informed now by the consultation submissions and most recent site survey work I have listed in the table below the significant issues that I think have most relevance to deciding on what areas( if any) of the six sites might be appropriate to licence at this stage. I also list minor issues which also will have a bearing on these decisions.

Development	Significant factors	Minor factors
Proposal	constraining	constraining
Site ref	development proposal	development proposal
397A	High elevation in places. Subtidal section/in channel. Proximity to amenity usage. Longshore public access.	Site is very large in area with no existing oyster aquaculture; trial site would be better. Fish passage obstruction. Navigation impact. LVIA low to moderate. Rock outcrop areas. Potential impact on salmon fishery. Submerged pine forest area.
397B	Sewage outfall proximity (outfall is within site). High elevation in places (>midtide). Mobile or loose substrate in places. Potential for significant impact on morphology. Too deep in places - Subtidal section/in channel.	Site very large-trial site preferable. Fish passage obstruction (low). Navigation impact.
397C	Access route proposed is not acceptable (crossing channel).  Sewage outfall proximity.  Potential for significant impact on morphology.  Fish passage obstruction.  Soft substrate in places.  High elevation in places.  Navigation impact /access to St John's Pier.	Site very large-trial site preferable.  AA access is different.  LVIA low to moderate.

#### Recommendations

My recommendations based on the information available at this point is that





- Both the recommended sub areas for 397A are sub optimal for the aquaculture type proposed. Both are small in area relative to what was applied for. The 2 sites are located closer to amenity strand area of Carn than the other sites applied for. Water quality /shellfish quality results that may arise at these sites are not known at this point it might be expected that the distance from the Ardara sewage outfall ( of at least 1.1km) will help but there may be other pollution inputs to the Bay waters which could influence viability if/when monitoring programme is in place.
- It may be necessary to establish whether or not the applicants would remain interested in being licensed for such a small proportion of what each had originally applied for. The sub areas involved would support small scale production only. I understood that Donegal Ocean Deep Oysters Ltd was more interested in sites 397B and 397C than in 397A
- There is the likelihood of an appeal if site area is licensed in this Bay.
- Another possible approach that AFMD might consider would be to refuse to licence any of the sites on the basis that as applied for they are not licensable. The applicants have the possibility of applying again for smaller more carefully selected areas if they are so minded.

Paul O'Sullivan

Paul O'Sulliva

4/2/19

# OSullivan, Paul

OMahony, Jane  15 November 2018 09:35  To: OSullivan, Paul Loughros Mor - T12/397A, B&C, Attachments: IFI - T12_397 A B &C.docx IFI - T12/397 A, B & C A Donegal; Aquaculture applications in Loughros Bay; Aquaculture licence Loughros Bay; RE: Consultation for aquaculture in Loughros Mór Bay; A Applications: T12-397 A B C, T12-397 A B C			
Follow Up Flag: Flag Status:	Follow up Flagged		
Morning Paul,			
Please find attached consultee continued these would be appreciated.  IFI comments did come in after the second continued to t	omments for Loughros Mor attached. Any comments or observations you have or the official deadline.		
Thanks.			
Kind Regards,			
Jane O'Mahony Aquaculture and Foreshore Manager	ment Division		
An Roinn Talmhaíochta, Bia agus Department of Agriculture, Food and			
An Lárionad Bia Mara Náisiúnta, A National Seafood Centre, Clogheen,	n Cloichín, Cloich na Coillte, Corcaigh, P85 TX47 Clonakilty, Co. Cork, P85 TX47		

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# OSullivan, Paul

From:

OKelly, Oisin

Sent:

21 December 2018 14:48

To:

OSullivan, Paul

Subject:

T12/397A, B, & C: Conor Reid's response to public & stat consultation

Attachments:

Conor Reid Response to Pub and Stat Objections.pdf

Follow Up Flag:

Follow up

Flag Status:

Flagged

Good afternoon Paul,

Further to your conversation with Geraldine, I'm passing along Mr Reid's response to the public and statutory consultation in Loughros Mór Bay.

# Oisín O'Kelly

Executive Officer

An Roinn Talmhaíochta, Bia agus Mara Department of Agriculture, Food and the Marine

An Lárionad Bia Mara Náisiúnta, An Cloichín, Cloich na Coillte, Corcaigh, P85 TX47 National Seafood Centre, Clogheen, Clonakilty, Co. Cork, P85 TX47

T: +353 (023) 885 9418 www.agriculture.gov.ie

OSullivan, Paul	
From: Sent: To: Cc: Subject: Attachments:	OKelly, Oisin 10 January 2019 13:12 OSullivan, Paul ODonovan, Geraldine Loughros Mór Bay Objections - For your perusal Irish Fish Producers Org Objection.pdf; Objection.pdf; Objection Topic Objection T12-397.pdf; Objection Objection Donegal County Council Response.pdf; Irish Water Response.pdf; SFPA Consultation Response DHPLG Foreshore Comment; DCHG Response
Afternoon Paul,	
As Geraldine mentioned	yesterday I'm forwarding on some of the responses from the Public Consultation process.
objection this.	is raising the argument that the area is of historical significance and was objecting based on
Irish Fish Producers Orga coexist with any trestles	anisation's objection raises their concerns that there is pre-existing fishing that cannot
I've also reattached the the one spot.	objections from the Statutory Consultees for your convenience, keeping all information in
Please let me know if I c	an help with anything else,
Warmest regards,	
Oisín O'Kelly Executive Officer	
An Roinn Talmhaíochta, Department of Agriculture,	
	isiúnta, An Cloichín, Cloich na Coillte, Corcaigh, P85 TX47 Clogheen, Clonakilty, Co. Cork, P85 TX47

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To: Geraldine O'Donovan - DAFM

From: Francis O'Beirn, Marine Institute

CC: Terry McMahon-MI; Oisin O'Kelly- DAFM

Re: DCHG (NPWS) response to Loughros Mór Bay aquaculture applications

Date: March 28, 2019

The Marine Institute have been asked to comment on the submission from Department of Culture, Heritage and the Gaeltacht, National Parks and Wildlife Service (NPWS) to DAFM in relation to a number of licence applications in Loughros Mór Bay as part of the West of Ardara-Maas Road SAC. We have reproduced the NPWS comments below with our response immediately following.

In conclusion, we acknowledge the nature of the observations from NPWS and they do, in our view, raise some significant issues and, accordingly, we will revise the AA report to reflect the concerns highlighted. In addition, we will assess the likely interactions between conservation features and aquaculture sites not considered in the earlier version of the report<sup>1</sup>.

**NPWS Comments-Harbour seal (***Phoca vitulina***):** This Department is satisfied that in the main where terrestrial/intertidal haul-out habitat use is concerned, the rationales and conclusions presented in the Appropriate Assessment report with regard to harbour seal (Phoca vitulina) are supported, and that the likelihood of a significant effect on seal populations at the identified haul-out sites may be discounted.

However with regard to this species aquatic behaviour and habitat use, it must be noted that the subtidal and intertidal waters of inner Loughros More Bay extending eastwards to Ardara are identified as suitable habitat in the published conservation objectives for the site. While specific information on aquatic areas of preference for harbour seals within and outside the SAC is currently lacking, given the scientific knowledge of harbour seal movement and behaviour in coastal and estuarine situations elsewhere it is valid to consider those subtidal and intertidal waters along and adjacent to the main channels, extending inland to the eastern perimeter of the SAC, as of potential importance for movement and foraging of this species within this SAC.

In the absence of site-specific data concerning harbour seal habitat use in the West of Ardara/Maas Road SAC, it is this Department's contention that areas T12/397B (25.5ha) and T12/397C (22.4ha) (total: 47.9ha) of fixed trestle-based aquaculture could act as a physical barrier and/or disturbance source limiting or preventing aquatic site use by harbour seals and also restricting access to suitable demersal/benthic foraging habitat for the species.

In view of the site-specific conservation objective for harbour seal it is recommended that: (1) the above scientific and conservation considerations are taken into account by the Licensing Authority and (2) a precautionary approach is adopted, in order to ensure that any introduction of artificial barriers to site use by harbour seals and/or disturbance-mediated effects on the population at the site are avoided.

<sup>&</sup>lt;sup>1</sup> Marine Institute. 2016. Report supporting Appropriate Assessment of Aquaculture in West of Ardara/Maas Road SAC (Site code: 000197). Version: October 2016



**MI Response:** The comments from NPWS are noted. We do note that while the majority of the area proposed for aquaculture activities appears to be located high in the intertidal zone, there are certainly some lower shore areas that might be utilised and hence, may present a barrier to seal movement. We propose that if the Minister is minded to licence these sites that they be redrawn such that potential travel routes be avoided.

**NPWS Comments - Annex I Habitats:** While agreeing with the premise that oyster trestles placed on the intertidal do not permanently affect the sediment directly beneath them, this is based on the assumption that the structures do not alter the hydrography of the site. However this Department is concerned that in a bay as small and narrow as the bay in question, with the trestles all occurring in a band across the centre of the site, changes to the hydrology of the inner bay cannot be discounted. A restricted flow to the inner part of the bay has the potential to have deleterious effect on the marine community type there.

This Department also considers that the decoupling of water column conditions from benthos condition is erroneous; poor water quality, particularly if it is on-going, will impact negatively on the sedimentary communities and therefore must be considered as an in-combination effect.

MI Response: We note the comments from NPWS. However, while we acknowledge that the mouth of the bay would be considered narrow, it is our view that the bay is not considered small or narrow particularly in the areas where the proposed aquaculture activities are proposed. Notwithstanding, the point with regard to restricted water flow is noted and may present a risk of restricting water exchange with concomitant impact on benthic communities upstream from the proposed activities. On this basis, it is recommended that the size of the sites be redrawn (as recommended above) to prevent impediment to water flow. This solution will also serve to mitigate the potential impact on harbour seal identified above.

The 'decoupling' of water quality conditions from benthic conditions is justified in this instance. The bay is shallow and subject to short residence time suggesting the retention of nutrient in the system does not present a risk. We propose that there are no likely in-combination effects between aquaculture activities and water quality issue that will result in harm to conservation features. Furthermore, the potential for shellfish to mitigate the effects of eutrophication (a consequence of elevated nutrients) in a system should be acknowledged.

**NPWS Comments - SPAs:** Section 4.4 of the appropriate assessment report screens adjacent SACs. This Department recommends that screening is also undertaken for proximate SPAs. The SAC site-specific conservation objectives document lists Sheskinmore Lough SPA (004090), Lough Nillan Bog SPA (004110), Inishkeel SPA (004116) and West Donegal Coast SPA (004150) as overlapping/adjacent to SAC 000197.

**MI Response:** The observation is noted and the AA report will be revised to reflect this advice. It is also noted, in separate communications from NPWS, that individuals of Greenland White-fronted Goose apparently originating from Sheskinmore Lough SPA (004090) appear to utilize the intertidal areas in the bay. These events will be considered in the revised assessment report.



To: Geraldine O'Donovan - DAFM

From: Francis O'Beirn, Marine Institute

CC: Terry McMahon, Jeffrey Fisher-MI; Oisín O'Kelly- DAFM

Re: IFPO observations on Loughros Mór Bay aquaculture applications

Date: April 23, 2019

The Marine Institute have been asked to comment on the submission from Irish Fish Producers' Organisation to DAFM in relation to a number of licence applications in Loughros Mór Bay within the West of Ardara-Maas Road SAC.

In conclusion, we acknowledge the nature of the observations from IFPO and they do not, in our view, raise significant issues as they relate to the Natura Assessment. Notwithstanding, we have revised the AA report to provide clarification as to why we feel the any interactions between the fishery and proposed aquaculture operations have no relevance to the assessment process.

The concerns highlighted by IFPO relate, in the first instance, to the likely impact the presence of oyster trestles in the outer part of the bay will have on a draft net fishery for salmon. The assumption from the Marine Institute is that if such a fishery is permitted, then there are surplus salmon for harvest in the bay and the species is meeting its conservation targets. That trestles might impede the deployment of nets or navigation in the bay has no bearing on the conservation features of the SAC. Furthermore, it is important to note that the MI consider, in the AA report, other activities that might act in concert with proposed aquaculture activities to impact on the conservation features of the site. If it is found that the aquaculture activities are considered non-disturbing to conservation features, then the assessment will end there and the likely disturbance from other activities will not be relevant.

How the fishery might interact with bird features or seal features is presumably considered by the authorities overseeing this fishery during their assessment/licencing process?

Other issues highlighted in the IFPO submission as they relate to location of the fishery and the contents of the Draft Conclusion Statement are beyond the remit of the MI, specifically as it relates to production of AA reports.