

## **Commissioners of Irish Lights Submission**

### **Independent Aquaculture Licensing Review Group: Public Consultation**

#### **Introduction**

The Commissioners of Irish Lights is the General Lighthouse Authority throughout the island of Ireland, its adjacent seas and islands. Irish Lights carries out the obligations of the British & Irish Governments in relation to the provision of an Aids to Navigation (AtoN) service around the coast of Ireland commensurate with the amount of traffic and degree of risk under the Safety of Life at Sea (SOLAS) Convention.

Irish Lights provides Aids to Navigation and Allied Services for the Safety of Persons and Infrastructure at Sea and the protection of the Marine Environment. Irish Lights is vested under the Merchant Shipping Acts in Ireland and the UK with the responsibility for superintendence and management of all marine aids to navigation around the coast of Ireland.

Local Lighthouse Authorities (LLA) have authority over Local Aids to Navigation in their areas and typically they are Harbour Authorities or County Councils. Local AtoN may be provided by the LLA themselves or by other bodies. The provider has responsibility for the provision and maintenance of AtoN. Under the Merchant Shipping Acts Irish Lights is responsible for the management and superintendence of all AtoN. Most interaction is through our Local Aids to Navigation Lead who inspects, audits and reports on Local AtoN, there is also a requirement for LLA's to submit a quarterly report to Irish Lights.

#### **Our role in the statutory process**

Irish Lights is a statutory consultee for aquaculture applications under SI No. 236/1998 Aquaculture (Licence Application) Regulations, 1998. Aquaculture applications are received from the Department of Agriculture Food and the Marine (DAFM) and an appropriately qualified individual within Irish Lights then examines the application and makes a navigational assessment of the proposed site.

Irish Lights main concern is to ensure that there is an efficient and accountable means of ensuring that the safety of navigation and marking issues are properly considered at application stage and that the Aids to Navigation requirements of the licence are complied with.

In order to obtain the greatest uniformity in Aids to Navigation under the Safety of Life at Sea (SOLAS) convention, Contracting Governments must take into account the appropriate Recommendations and Guidelines of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). Irish Lights is a member of IALA and is obliged to ensure IALA approved marking of navigational hazards.

The licencing process should be based on sound Marine Spatial Planning (MSP) principles and practices. Aquaculture developments are often, by their nature sought in navigable areas creating a potential conflict for safe navigation, their structures are mainly of low profile with little visual conspicuity to warn the mariner of their existence. It is important to ensure that navigation safety is adequately reflected in the MSP process. Objections can be made by Irish Lights during the application process if the proposed site significantly restricts a navigable channel or safe anchorage.

BIM and DAFM are best placed to the lead in the aquaculture MSP process from a licensing perspective and Irish Lights would expect to be actively involved in MSP layers relating to safe navigation and marking.

We are fully supportive of the industry and its expansion and while the sustainable and responsible exploitation of the marine environment is an important aspect of Marine Growth in Ireland it is important to ensure that development does not close off or restrict our Loughs, inlets and bays to navigation. Designated aquaculture areas while being mindful of social considerations as well as commercial may be one practical solution.

### **Marking Management and Compliance**

The applicant must secure statutory sanction for installation of Aids to Navigation (AtoN) from Irish Lights. The applicant should then purchase and install AtoN's as soon as practical prior to the commencement of aquaculture operations. The applicant should continue to maintain the AtoN according to licence conditions.

AtoN compliance is monitored by Irish Lights via the provision of quarterly reports from Local Lighthouse Authorities and by Inspections by our Local Aids to Navigation Lead. However some sites once issued a licence do not establish Aids to Navigation as described in the licence conditions. Irish lights would welcome discussion with the relevant authorities regarding improvement of its enforcement powers with regard to compliance with AtoN.

Enforcement of licence conditions should be fully addressed as part of the Independent licensing Review Groups Terms of Reference. Consideration should be given to establishing a proper enforcement regime including a formal review of aquaculture licences, with a time limit for corrective actions and appropriate penalties if compliance is not achieved.

Quick Response Codes (QR) posted on Aquaculture AtoN could be employed to provide identification and status of licence compliance information to relevant authorities during inspection processes. For instance is the licence in date, who is the licence holder and is the mark, and the site itself in the right position. Automatic Identification Systems (AIS) can also transmit information on the position and operational status of the aid (light and battery health) which can also be monitored by the site owners.

Each development has its own specific features and potential hazards but it is important for all concerned to have guiding principles to give uniformity in decision making. This will allow applicants to understand at the early stages of the process what they can expect from all the environmental and navigational concerns arising from their application. The pace of change

in traffic volume, vessel type and on board navigation aids is accelerating, one element we feel that needs to be included in the early stages is the analysis of marine traffic and future trends for marine traffic.

Sharing resources and taking advantage of individual organisational competencies can greatly improve the oversight and administration of aquaculture. A shared information management system for all agencies involved could significantly improve the efficiency of the application process and monitoring compliance of a site. Each authority should only have access to data relevant to their area of operations and details of site inspections could be shared amongst relevant authorities.

Use of Global Positioning System (GPS), AIS, and Geographical Information System (GIS) tools can play a valuable role in the licencing compliance and safety management of a site. AtoN which mark the extremities of individual sites could transmit positions that can be employed in GIS software to show infractions. Irish Lights and BIM can work together with DAFM, Department of Agriculture and Regional Development (NI) and the Marine Survey Office to contribute to a shared GIS source.

## **CLAMS/SUMS**

The Coordinated Local Area Management Schemes (CLAMS) and the Special Unified Marking Scheme (SUMS) are effective solutions for marking and compliance requirements. The collaboration of the BIM regional Development Officer, the MSO, divisional engineers and Irish Lights has proven effective. The Irish Lights Local Aids to Navigation Lead will continue to assist in surveying, inspecting and assessing unified schemes.

Where CLAMS and SUMS combine to collectively light and mark aquaculture within their bay we recommend an appropriate ownership of the system be established. One issue to note from the Dungarvan scheme was that the marks were established and financed initially by the CLAMS group, however there was no one person or body to undertake responsibility and maintenance of the marks in the long term. The council subsequently undertook this role recognising that the marks are a significant assistance to all users of the bay.

## **Offshore Aquaculture Sites**

Irish Lights primary competencies lie in the areas of aids to navigation requirements, design and provision; marine and maritime safety; ship provision; coastal infrastructure; moorings; risk assessment, data, sensor networks, communications and Marine Spatial Planning become increasingly important as sites move further offshore.

Aquaculture sites are being developed further offshore and can create significant offshore hazards. Monitoring the status and performance of AtoN through digital communications can and should be utilised to ensure compliance. The shape and colour of individual Aids to Navigation give the mariner important information but future structures (particularly buoys) have the potential to give significantly more information such as environmental information through wind and wave sensors and site information through AIS transmitters.

As on board navigational equipment becomes more sophisticated in even the most basic of vessels the value of using Virtual AtoN in certain circumstances and as part of the mix of physical and electronic aids has the potential to be a valuable tool for offshore aquaculture sites.

Irish Lights can carry out extensive AIS traffic analysis and are in a position to carry out accurate Risk Assessment on a commercial basis for operators themselves or on an advisory basis for DAFM.

Irish Lights are available to participate in any revised licensing regime and for further consultation. Please do not hesitate to contact us if you have any further questions.

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