Visual Impact Assessment in support of AP56/2019

Contents

Introduction

I have carried out this visual assessment in line with the guidelines for Landscape and Visual Impact Assessment of Marine Aquaculture (ERM, 2001).

Methodology

Study area

The study area for the assessment of impacts on landscape and visual amenity was calculated in accordance with the Guidelines for the Assessment of the Landscape and Visual Impacts of Marine Aquaculture Operations (DMNR & ERM, 2001). In line with the guidelines (DMNR & ERM, 2001), the assessment is limited to a zone of visual influence (ZVI), 4 km distant from site T01/119A.

Local knowledge and a desk study were combined to identify sensitive receptors within 4km of the proposed site. Data sources included: the Louth County Development Plan 2015-2021, National Monuments Service and Ordnance Survey maps. Photos were taken of the proposed site from surrounding roads. Graphics of the trestles were overlaid onto these images to give a visual representation of the proposed activity.

Fig 1- Visual Envelope

The landscape and visual sensitivity of each receptor was then assessed as either high, moderate or low based on its vulnerability and distance from the site (Table 1) The magnitude of the impact or change was also assessed as high, moderate or low (Table 2).

Survey

Photographs were obtained from various positions that could be affected, visually, by the siting of the proposed enclosures. During the survey a 2m high visibility yellow sleeve was deployed at the central point and boundary corners of the site using GPS technology.

Photographs taken were overlaid and combined to produce a single image with precise plotting marks to indicate site dimension. A CAD drawing of the enclosures was then introduced as a three-dimensional model and scaled to the site, ensuring that relevant camera lens and camera orientation matched that of the photograph. Once placed in position the plotting marks were erased and the image was adjusted to compensate for atmospheric distortion. The final image is an accurate representation of what the proposed site would look like if photographed.

Fig 2 – Survey locations and shot direction

Impact assessment

The degree of any impact on the landscape or visual amenity of the surrounding areas has been based on a number of factors these include:

1. Distance.
2. Duration of viewing opportunities; and
3. Amenity expectations.

Table 1 Sensitivity categorisation

Sensitivity category	Receptor	Definition/Description
Low	Landscape	Landscape that can accommodate aquaculture developments without detriment to its character or features. No special landscape qualities or values apply
	Visual	Viewers have limited viewing opportunities and/or low amenity expectations, such as farmers, fishermen, aquaculture or other workers.
Medium	Landscape	Landscape that can accommodate carefully sites, small scale aquaculture development that respects existing landscape character and features. May have some special qualities or values at a local level
	Visual	Viewers have moderate amenity expectations and/or short or intermittent viewing opportunities, such as passing motorists, ferry users and temporary residents
High	Landscape	Landscape that is vulnerable to change as a result of aquaculture development. Change may damage landscape feature(s) that are important or distinctive in a regional or national context. Special qualities or values at a regional or national scale apply.
	Visual	Viewers have high amenity expectations and/or prolonged viewing opportunities, such as tourists, people involved in recreational pursuits such as walking or sailing and local communities.

The magnitude of an effect is the degree of change caused by an event from baseline conditions. For the purposes of this assessment, the magnitude of effect can be quantified using the criteria in Table 2.

Table 2 Magnitude categorisation

Magnitude category	Receptor	Definition/Description
Low	Landscape	Limited or virtually imperceptible change in landscape elements and features, giving rise to negligible change in landscape character and qualities.
	Visual	Narrow visual envelope and/or few viewers affected. Generally long-distance views and/or limited changes in view.
Medium	Landscape	Moderate change in landscape elements and features, giving rise to a

		noticeable change in landscape character and qualities.
	Visual	Visual envelope of moderate size and/or moderate number of viewers Affected. Some short or middle distance and/or moderate changes in view.
High	Landscape	Extensive change in landscape elements and features, giving rise to a marked change in landscape character and qualities.
	Visual	Extensive visual envelope and/or high number of viewers affected. Short distance views and/or major changes in view.

The significance of an impact is determined by combining the site-specific sensitivity of the receptor and magnitude of effect. This follows the approach in the National Guidelines (DMNR & ERM, 2001).

The significance ratings used in this assessment are presented in Table 3.

Table 3 Significance matrix

Sensitivity of landscape or visual receptor	Magnitude of change		
	High	Medium	Low
High	Very Substantial	Substantial	Moderate
Medium	Substantial	Moderate	Slight
Low	Moderate	Slight	Negligible

According to the Guidelines for the Assessment of the Landscape and Visual Impacts of Marine Aquaculture Operations (DMNR & ERM, 2001), where impacts are identified as of "Substantial or Very Substantial" significance, these are considered "Unacceptable" whilst potential impacts assessed as of Moderate significance or lower (Slight and Negligible) are considered "Acceptable", subject to satisfactory conditions on detailed siting layout, design and environmental management

Baseline environment summary

In the Louth County Development Plan 2015-2021, the roadway adjacent to site T01/119A is designated as a scenic route (SR 15). These views and prospects are reflective of Louth's unique scenic quality and are notable for their natural scenery and striking landscapes. Developments should not interfere with or adversely affect these scenic routes.

Aquaculture sites are already visible from this route and were visible at the time of designation, one site closer to the scenic route applied for by another oyster farmer has recently been subject to a positive determination. Louth co. co. did not object to any oyster licence applications or renewals in this area.

The shore at this location is used by local walkers, it is not used as a swimming location.

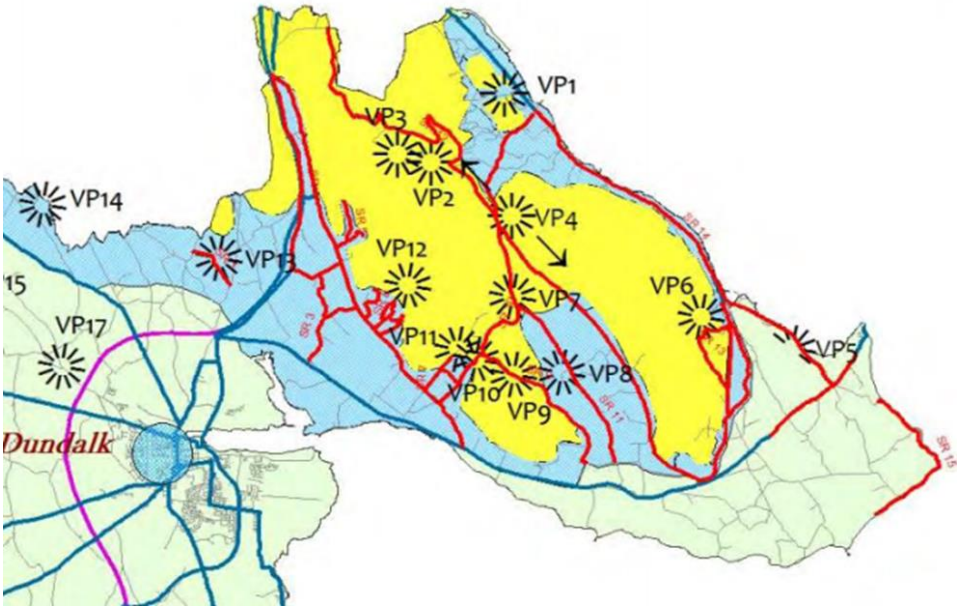

Fig 3 - Viewpoints and scenic routes (Louth County Development Plan 2015-2021)

The Carlingford Lough Ferry route passes to the north of the site

There are approximately 35 properties within the visual envelope that are within 4km of the application area will potentially have views of the site.

Impact Assessment

Introduction

This section presents an assessment of the potential impacts identified arising from the Project on landscape and visual amenity.

Potential impacts

In the case of marine aquaculture, the key impacts to be considered are (DMNR & ERM, 2001):

- Effects on the intrinsic character and quality of remote unspoilt landscapes
- Physical change and damage to landscape elements for example through the provision of new slipways or access tracks; and
- Effects on the visual amenity of residents, tourists and other water users – which in turn may adversely affect the livelihoods of those dependent on tourism.

Impact prediction was undertaken in line with Departmental Guidelines (DMNR & ERM, 2001). The guidance document states that impact prediction involves the systematic identification and description of effects including:

- Direct effects on landscape features, such as the removal of vegetation or other features;
- Indirect effects on landscape character and qualities from the introduction of the Project; and
- The effect of a single farm on the character of the seascape but cumulative impacts must be considered for one or more farms.

Effects on visual amenity enjoyed by people as a result of changes in landscape features, character and qualities must be considered. These depend on factors such as the nature of the change, the degree of intrusion in the field of view, the numbers and type of viewers affected, the viewing distance and cumulative impacts. In addition, the landscape appraisal recommends that particular attention should be given to the preservation of the character and distinctiveness of these coastal areas as viewed from scenic routes and the environs of archaeological and historic sites (CAAS, 2008).

Potential impacts identified for landscape and visual amenity associated with the operation phase of the Project, demonstrating the source – pathway – receptor route to potential impacts are summarised in Table 4.

Table 4 - Potential impacts identified

Potential Impact	Source	Pathway	Receptor
Short distance views <0.5km			
Impaired view	Presence of the of the project	View across the top of the site the site, and of the site. Workers and tractors will be visible at low water	Scenic Route – SR 15
Impaired view	Presence of the of the project	View across the top of the site the site, workers and tractors will be visible at low water.	Seven residential dwellings
Middle Distance views 0.5-2km			
Impaired view	Presence of the Project	Local passengers and passing tourists, intermittent view	Ferry passengers and passengers of leisure sailing vessels
Impaired view	Presence of the of the project	View across the top of the site the site, workers and tractors will be visible at low water.	IE residential dwellings
Long Distance views >2km			
Impaired view	Presence of the Project	Long distance view 2.5-3.5 km	Residents on the NI side of the Lough
Impaired view	Presence of the Project	Long distance view >3km	Cranfield Beach NI
Impaired view	Presence of the project	Long distance view >3km	Greencastle Road – NI
Impaired view	Presence of the Project	Long distance view >3km	Fair Rd – NI

No archaeological and historic sites are in the vicinity of the project

Impacts scoped out

Those effects and impacts that have been scoped out are described in this section and justification for this decision given (Table 5)

Table 5 - Justification for impacts scoped out

Potential impact	Justification for scoping out
Visual	
Impaired view by ferry passengers and passengers of leisure sailing vessels	The structures on the proposed site will be screened by existing trestles on licenced area seaward of the proposed site
Impaired view from residents, roadways, beaches and roads in NI	The structures on the proposed site will be screened by existing trestles on licenced area seaward of the proposed site
Impaired view from residential properties in IE outside the immediate vicinity of the project	Local topography, screening by existing oyster farming structures and/or distance eliminates any viewing opportunities

Parameters used for assessment

The key parameters used for assessment of the potential impacts identified on landscape and visual amenity as a result of the Project are described in Table .

Table 6 Parameters used for assessment

Potential impact	Assessment parameters	Justification
Impaired view – SR15	Location of structures - survey conducted to define viewpoint	Visual amenity from this location will be affected by the introduction of structures in the site area
Impaired view – Residential properties	Location of structures - survey conducted to define viewpoint	Visual amenity from this location will be affected by the introduction of structures in the site area

Measures adopted as part of the Project

The assessment within this chapter takes into account mitigation measures that are incorporated into the design of structures and their placement on the shore. These are part of the design process and other measures that are considered standard practice.

Measures adopted as part of the Project relevant to landscape and visual amenity, are in line with project design criteria listed in National Guidance (DMNR, 2001) as set out below:

- All structures/trestles and bags on the site will be approximately the same size
- Trestles are aligned parallel to the shore in the same configuration as currently permitted structures on the shore at Ballagan
- Trestles are low-profile structures.
- As the site sits behind the exiting culture area, no additional navigational beacons will be required
- The substate in the area is dark and thus the structures will not be contrasting against a bright substrate.
- On the east coast of Ireland, the majority of tides which will expose this site to viewers occur during the hours of darkness

Impact Categorisation

The impacts of placing structures on this site have been assessed on landscape and visual amenity in the study area. A description of the potential changes on landscape and visual amenity receptors caused by each identified impact is given below.

Fig 4 – Existing view from crest of hill on scenic route

Fig 5 – Projected view from crest of hill on scenic route

Fig 6 – Existing view from slipway

Fig 7 – Projected view from slipway

Fig 7 – Existing view from corner

Fig 7 – Projected view from corner

Impaired view- Scenic Route

The Sensitivity of tourists to landscape and visual amenity impacts associated with the placing of structures on this site is Medium owing to the intermittent nature of viewing opportunities and the presence of oyster farming structures already in this area. The Magnitude of change is Medium due to the size of the visual envelope (Large), the fact that the site will be covered by seawater most of the time and the presence of existing oyster structures in this area. This gives an overall risk Significance of Moderate for the Ferry passengers and is therefore Acceptable subject to standard licence conditions on site layout, design and environmental management.

Impaired view- Local Residences

The Sensitivity of local residents to landscape and visual amenity impacts associated with the placing of structures on this site is Medium owing to the intermittent nature of viewing opportunities and the existing presence of oyster farming structures in this area. The Magnitude of change is Medium due to the size of the visual envelope (Large), the fact that the site will be covered by seawater most of the time and the presence of existing oyster structures in this area. This gives an overall risk Significance of Moderate for the Ferry passengers and is therefore Acceptable subject to standard licence conditions on site layout, design and environmental management.

Cumulative Impact Assessment

The following section describes the potential for the Project to result in cumulative impacts with other projects and proposed developments on landscape and visual amenity.

As described above, impacts on landscape and visual amenity as a result of the Project will be confined to a 4 km Zone of Visual Amenity. There are existing oyster aquaculture sites within this zone. But the current proposal is not considered to be a significant addition in terms of visual or landscape intrusion but rather a small addition to an existing culture block.

Visual amenity has never been raised as a concern in this area by the local council or residents as a result of oyster culture activities

Cumulatively Sensitivity is Low and the Magnitude of change is Low, therefore the cumulative impacts will be of Negligible Significance and therefore Acceptable.

Conclusion

The impact assessment in respect of landscape and visual amenity did not identify potential for significant impacts to occur as a result of the Project either alone or cumulatively with other projects. A summary of the conclusions of the impact assessment is provided in Table 7.

Table 7 Conclusions of EIS in respect of landscape and visual amenity

Potential impact	Receptor	Sensitivity	Magnitude	Significance Rating	Conclusion
Operation					
Impaired view – SR15	Landscape Visual	Medium Medium	Medium Medium	Moderate Moderate	**Acceptable** **Acceptable**
Impaired view – SR15	Landscape Visual	Medium Medium	Medium Medium	Moderate Moderate	**Acceptable** **Acceptable**
Cumulative Impacts					
Cumulative with other oyster aquaculture in the Zone of visual influence	Landscape Visual	Low Low	Low Low	Negligible Negligible	**Acceptable** **Acceptable**

References

CAAS Ltd (2008) Landscape Appraisal of County Mayo.

DMNR and ERM (2001) Guidelines for the Assessment of the Landscape and Visual Impacts of Marine Aquaculture Operations, Department of Marine & Natural Resources.

http://webgis.archaeology.ie/historicenvironment/

https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=89e50518e5f4437abfa6284ff39fd640