

Louis Keating

Kilrush Maritime Ltd.

Kilrush Marina Dredging MUL application

Attachment 3.1

Description of Proposed Maritime Usage

Aidan Long PhD



AQUAFACT
APEM Group

AQUAFACT Ref: (P17851)

COMMERCIAL IN CONFIDENCE

Client: Louis Keating

Kilrush Maritime Ltd.

Address: Kilmihil, Kilrush, Co. Clare, Ireland

Reference no: P17851

Date of issue: 31/10/2025

AQUAFACT contact: Aisling Hearty

Position: Principal Marine Ecologist

E-mail: aisling@aquafact.ie

Telephone: +353 (0) 91 756812

Website: www.aquafact.ie

Address: **AQUAFACT International Services Ltd,**

 9A Liosban Business Park,

 Tuam Road,

 Galway,

 Ireland.

 H91 K120

Registered in Ireland: No. 493496

Tax Reference Number: 97733840

Tax Clearance Number: 559674

Report Approval Sheet

Client	Louis Keating Kilrush Maritime Ltd.
Report Title	Kilrush Marina Dredging MUL application Attachment 3.1 Description of Proposed Maritime Usage
Job Number	P17851
Report Status	Final
Issue Date	12/11/2025

Rev	Status	Issue Date	Document File Name	Author (s)	Edits	Approved by:
1	Draft	26/10/2025	Attachment 3.1 Description of the Proposed Maritime Usage.docx	AL	AH, AL	AH
2	Draft	31/10/2025	Attachment 3.1 Description of the Proposed Maritime Usage.pdf	AL	AH, AL	AH
3	Final	12/11/2025	Attachment 3.1 Description of the Proposed Maritime Usage.pdf	AL	AH, AL	AH



Table of Contents

Attachment 3.1	5
Introduction	5
Proposed Activities	5
Activity Schedule	11

Table of Figures

Figure 1 Proposed dredge area in the approach channel to Kilrush marina.	7
Figure 2 – Proposed Maritime Usage Location.	8
Figure 3 Proposed Maritime Usage Area with Nautical chart.	9
Figure 4 Section of Kilrush Marina approach channel with current bed characteristics and bed design post-dredging.	10

List of Acronyms/Glossary

MUL	Maritime Usage Licence
SFPC	Shannon Foynes Port Company
DaS	Dumping at Sea

Attachment 3.1

Description of proposed Maritime Usage

Introduction

AQUAFACT (APEM Group) was commissioned by Kilrush Maritime Ltd to prepare a Maritime Usage Licence (MUL) application for maintenance dredging of the approach channel to Kilrush Marina. Kilrush Marina is located immediately south of Kilrush town in County Clare, within the sheltered waters of the Shannon Estuary. The marina provides approximately 120 berths with a maximum vessel draft of 3 m and is protected by lock gates, which prevent direct tidal exchange with the estuary and reduces siltation within the basin itself. It serves a range of recreational and small commercial craft, supporting leisure boating, marine tourism, and associated waterfront businesses. The marina's position on the Shannon Estuary makes it an important local maritime hub, providing safe mooring facilities, boat maintenance services, and access to inshore and offshore waters. Moreover, the marina provides refuge for the SFPC pilot vessel, the local RNLI lifeboat and a number of other commercial vessels in the estuary.

The approach channel to the marina extends eastwards from the lock gates towards Cappagh Pier and is marked by navigation buoys. This channel provides the only access route for vessels entering or leaving the marina. Owing to the dynamic estuarine environment, sedimentation periodically reduces navigable depth in the approach channel, necessitating maintenance dredging to maintain safe access for vessels.

The proposed Maritime Usage in this application is part of a long-established programme of maintenance dredging in this area, which has been carried out periodically since the completion of Cappagh Pier in the mid-19th century. Dredging activities have become more regular and essential following the development of the adjacent Kilrush Marina, which was completed circa 1990.

Proposed Activities

The proposed works involve plough dredging of the Kilrush Marina approach channel to maintain safe navigable depth for vessels using the marina. The dredging area encompasses the full width (20 m) and length (250 m) of the approach channel and extends from the outermost fairway buoy through the marina approach channel to the lock gates.

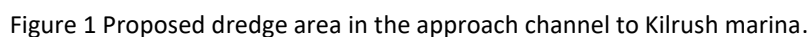
The equipment proposed to plough the marina approach channel will include a Multicat type tug towing an 8 m wide plough blade suspended from an A-frame on the stern of the vessel. Shannon Foynes Port Company's (SFPC) Multicat Shannon 1 has been successfully used previously and will likely be the vessel used for the proposed Maritime Usage (or similar). It is proposed that the approach channel is dredged to maintain a

channel width of 20 m, a target depth of -2.5 m Chart Datum (CD) and so that the sides of the channel achieve a slope of 1:4. The ploughing rate is estimated to be between 40 - 100 m³ per hour depending on the length of each haul as well as local spatial variation in current approach channel depth vs design depth.

Ploughing commences with a short haul at the outermost end in a seaward direction. Each successive haul begins further inward towards the lock gates until the full length of the approach channel is ploughed. This is repeated daily for the duration of the campaign.

Liaison with the Shannon Foynes Port Company Harbour Master will be maintained before and during each dredging campaign to ensure navigational safety is maintained throughout each operation.

Figures showing the dredge area (Figure 1), dredge location (Figure 2), nautical chart (Figure 3) and a section of the approach channel with dredge design (Figure 4) are presented below.





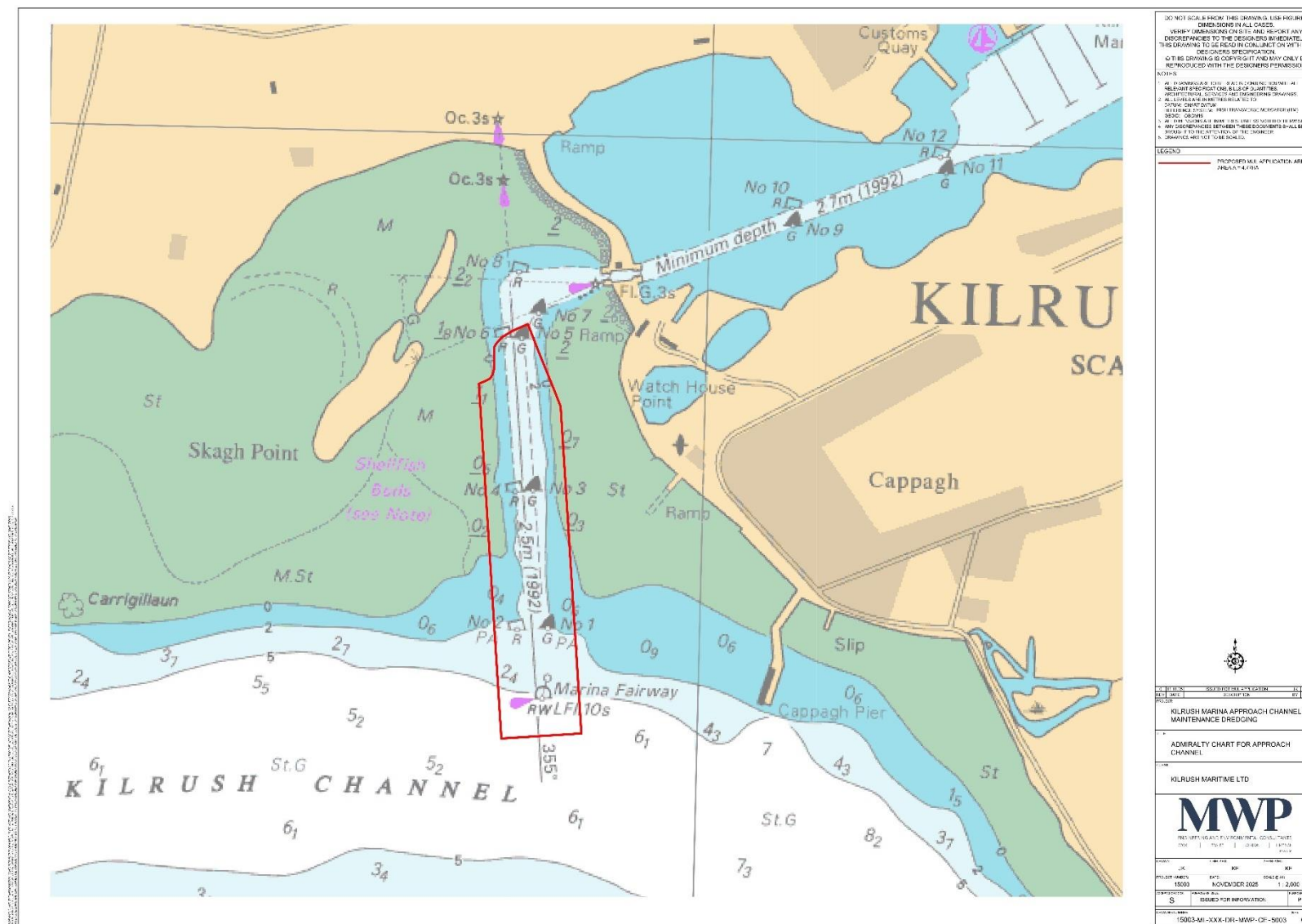


Figure 3 Proposed Maritime Usage Area with Nautical chart.

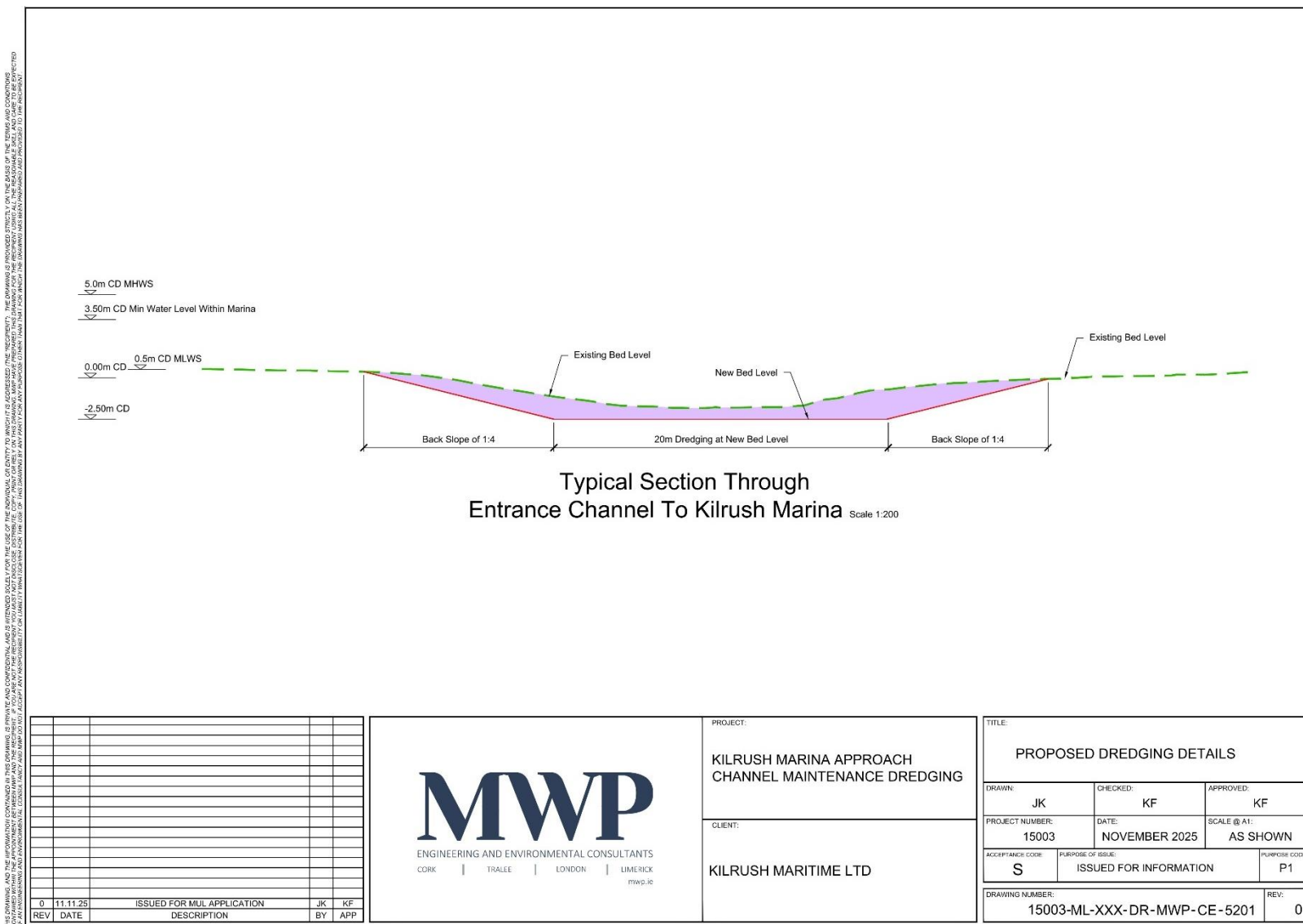


Figure 4 Section of Kilrush Marina approach channel with current bed characteristics and bed design post-dredging.

Activity Schedule

It is proposed that one dredging campaign will be completed every two years over an 8-year period, with an additional dredging campaign proposed for the final year of the licence (i.e. 5 dredging campaigns total, one in May 2026, 2028, 2030, 2032 and April 2033). Each dredging campaign will take between 5 and 10 days to complete. Within each dredging campaign, it is proposed that dredging will start 4 hours before highwater and last for up to 8 hours, ending no later than 4 hours after highwater on the ebb tide. Works will be scheduled outside the closed period of 1st October to 31st March to protect overwintering bird populations and associated habitats.

It is anticipated that up to 8000 t of material will be generated during each dredging campaign. With 5 dredging campaigns planned over 8 years, a total of 40,000 t of material would be generated over the lifetime of the Maritime Usage.