DRAFT DREDGE MANAGEMENT PLAN
KILKEEL INNER HARBOUR

Northern Ireland Fishery Harbour Authority

19 February 2026

Doran CONSULTING
DELIVERING ENGINEERING EXCELLENCE

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1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

1.1.1 Northern Ireland Fishery Harbour Authority are planning to carry out yearly maintenance dredging works in the Inner Harbour area at Kilkeel Harbour. The next licence period will span between 2026 to 2029.

1.1.2 Kilkeel Harbour is located on the northeast Coast of Ireland, three and a half miles northeast of the entrance to Carlingford Lough, it is situated on the Irish Sea coast at the foot of the Mourne Mountains. The Harbour is the main commercial fishing port on the County Down coast.

The objective of the works is to maintain sufficient water depth within the inner harbour area at low tide for boats to access the Harbours' quay, slipway and pontoons. The works will involve the dredging of recently deposited sands and silts.

1.2 DREDGE MANAGEMENT PLAN (DMP)

1.2.1 This document has been prepared by Doran Consulting to provide a framework for the management of the proposed dredging operations. Although this document has been produced by Doran Consulting, Doran Consulting do not accept any responsibility for the contents of assessments, plans or construction procedures that are carried out or added by other parties. This document is considered to be 'Draft' and will be developed by the NIFHA upon Commencement of the new licence period .

1.2.2 The DMP will specify how dredging practices and procedures should be designed to ensure any actual or potential adverse effects on the receiving environment are avoided or otherwise mitigated to the greatest extent practicable.

1.2.3 Mitigation will be implemented to ensure there is minimal impact resulting from the proposed activities on the receiving environment within Kilkeel Harbour.

1.3 LEGISLATIVE REQUIREMENTS

1.3.1 The Maintenance Dredging Works will be undertaken by directly by NIHFA, who will be required to prepare and implement a robust Dredge Management Plan considering the following DAERA 'Standing Advice': *Development that may have an Effect on the Water Environment; Marine Non-Native Species; Marine Wildlife Disturbance.* In respect of potential water pollution risk, NIFHA will work to strict protocols in respect of chemicals, hazardous materials and fuelling arrangements.

1.3.2 All proposed dredging and disposal at sea activities are to comply with:

- BS 6349-5:2016 Maritime Works – Code of Practice for dredging and land reclamation
- Dumping at Sea Act 1974
- All Environmental Regulatory requirements;
- ISO Standards (14001, 50001 along with 9001 as appropriate to the context);
- Client Rules and Procedures;
- DAERA dredge license conditions for the Project;
- DAERA disposal license conditions for the Project;
- Industry guidance as appropriate; and
- Local and Community considerations

2.0 DREDGING OPERATIONS

2.1 DREDGE QUANTITIES

2.2 The inner harbour is to be maintained at a level of 1.06m CD (3.24m below ordinance datum). The depth of dredging required at any one time to maintain this channel level is approximately 0.5m to 1.0m of material. The Dredge Plan is shown in Figure 2.1

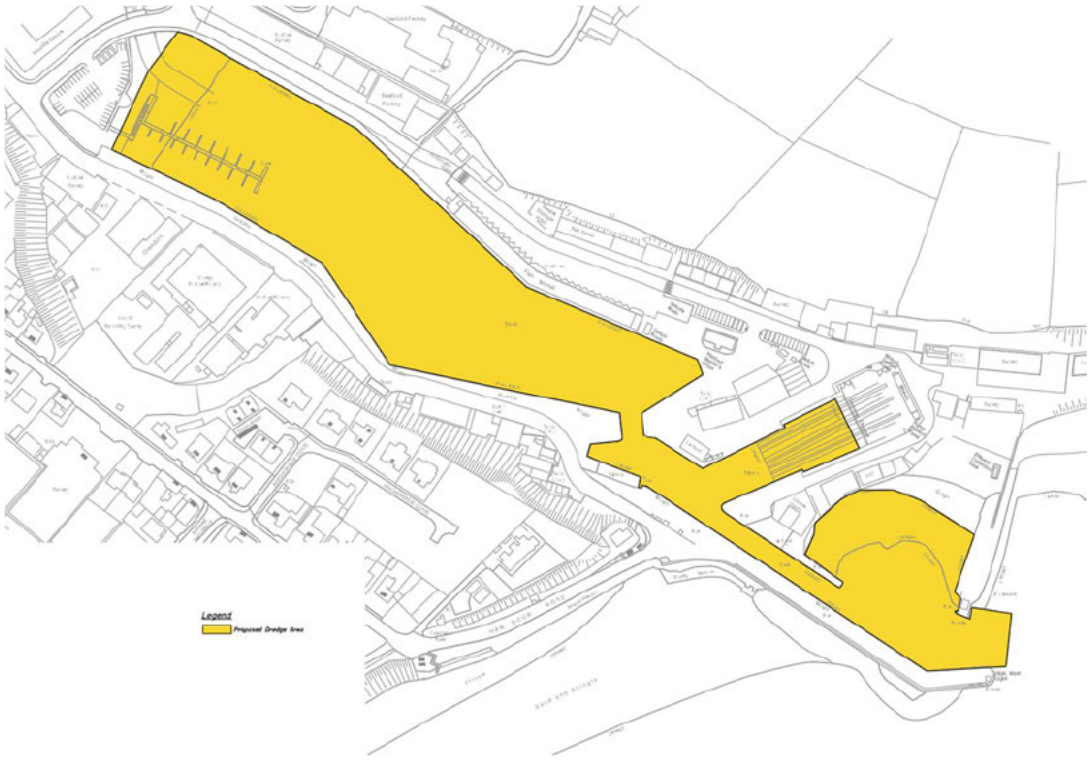

Figure 2.1 – Dredge Extents

2.2.1 The proposed Dredge area is approximately 43,800m^2 in plan area. Over the 3 year licence period it is expected that a total of circa 24,999 metric tonnes of dredge material will be removed and disposed of at sea.

2.3 DREDGE METHODOLOGY

2.3.1 The methodology below is a preliminary outline and is subject to confirmation by NIFHA.

- Only silts, sands & gravels are to be dredged.
- Dredging operations shall be carried out to the extent indicated on the drawings.
- The NIFHA owned and operated dredger, the Kilmourne, is to be used to complete the maintenance dredging works. This vessel has a hopper size of 100m^3.
  A long reach excavator mounted to the deck of the vessel will undertake the dredging works.
- The excavator will carefully excavate the material to the required dredge levels taking care not to damage existing structures or create excessive suspended solids.
- During the maintenance dredging works the vessel will generally dredge and dispose of between 2 to 3 loads a day at the disposal site.

2.3.2 Dredge plant will maintain a daily dredge log. The dredging log shall be a live document to be updated each day, resulting in a comprehensive record of the entire dredge campaign.

The daily dredge log shall, as a minimum, record details of dredging work including:

- Location of dredging in the last 24 hours;
- Proposed location of dredging for the next 24 hours;
- Dredging times;
- Dredged quantity;
- Nature of dredge material;
- Any notable events.

2.4 DREDGE DISPOSAL

2.4.1 It is anticipated that suitable dredge material will be disposed of at sea, dependent on DAERA granting a Disposal at Sea License.

2.4.2 All material to be removed will need to be deemed suitable for disposal at sea under the 'Disposal at Sea' license conditions.

2.4.3 The proposed disposal site is within a 0.5 nautical mile radius of the coordinated -54º 01.5'N 05º 55.5'W located approximately 5.5km from Kilkeel harbour as shown in Figure 2.2.

Figure 2.2

2.4.4 The disposal operation will include:

- The Kilmourne is targeting to take 2-3 loads a day to the designated disposal site. Disposal will be by opening the bottom doors of the hopper to allow the dredged sediment to be deposited on the seabed, this will be done while the vessel is in motion to aid in the dispersion of sediments over the full disposal site area.

- It should be noted that no overtopping of the hopper or decanting of water from the Hopper back into the tidal waters will be allowed. Any such event shall be dealt with as a spillage of dredge material.

- The route of the sea disposal vessel shall be recorded as required by DAERA. The volume of material to be discharged per day, frequency of trips per-day and the estimated traveling time will be recorded by the vessel operators each day.

2.4.5 An disposal log will be maintained as a live document showing a comprehensive record of the disposal campaign. The log shall record and report as a minimum the following:

- The name of the vessel;
- The source of the substance/ material;
- The date, time and position at which the voyage for the purposes of disposal began;
- The date, time and position at which the loading began;
- The date, time and position at which disposal began;
- The quantity, states in metric tonnes, of the substance or material disposed;
- The date, time and position at which the vessel completed the voyage for the purpose of disposal; and
- Logged vessel track record data.

2.5 PLANT AND VESSELS

2.5.1 The NIFHA dredge Kilmourne is to be used for the dredging, during so there must be operational and active AIS vessel tracking during the operation.

2.5.2 The vessel is to be serviced in accordance with good marine practice, and it is to be checked that if is fit for purpose.

2.5.3 The vessel is to be clearly marked with a vessel number and fitted with a VHF Radio, horn and be suitably lit in accordance with the International Maritime Standards.

2.5.4 A notice to mariners shall be issued prior to commencement of the activities to advise all vessels entering or leaving Kilkeel Harbour that the works are taking place.

3.0 ENVIORMENTAL CONSIDERATIONS

3.1 ENVIRONMENTAL MITIGATION

3.1.1 Mitigation measures shall be implemented for the duration of dredging, loading and disposal operations to remove/ reduce the associated environmental risk.

3.1.2 On review of the site environmental sensitivities and proposed construction activities the following topic areas have been identified which specifically require mitigation measures:

- Potential impacts on marine mammals from underwater noise;
- Potential impacts on the water environment; and
- Potential impacts on terrestrial ecology.

3.1.3 The above list is not exhaustive and appropriate mitigation measures shall be identified as required by NIFHA to ensure the environment is protected during their operations.

3.2 WATER QUALITY

3.2.1 There are risks of accidental pollution from the following sources when working in a marine environment:

- Spillage or leakage from oils and fuels from construction machinery, plant, barge etc.;
- Spillage of oil or fuels when re-fueling; and
- Suspended sediments from construction works.

3.2.2 Spillages

- All plant and equipment should be checked daily for oil and fuel leaks and records of checks kept.

- Plant and equipment will be in good working order, kept clean and fitted with drip trays where appropriate.

- Minimise the stored volumes of fuel, lubricants and oil on board the barge. When required they will be stored in a secure area and any spills will be cleaned immediately. Any visible or reasonably suspected fuel, lubricant or hydraulic fluid loss will be treated as an 'incident'.

- Personnel will be trained in environmental spill response and will be well equipped to clean any spillage should it occur.

- Both oil and chemical spill kits will be available on site and will be held in a location that is accessible to all including on floating plant.

- Refueling of plant and machinery will take place in a designated area away from water or when this is impractical (i.e. floating plant) follow an agreed procedure.

- Vehicles are not to be left unattended during refueling.

- Petrol/Diesel are to be stored in a bunded secure area. Tanks are to be inspected for leaks. Ensure that delivery hoses are in good condition.

- Any leaks from plant releasing diesel/petrol/oil substances will be immediately isolated, contained and cleaned away using the appropriate kit.

- Contaminated spill kit material will be disposed of to a licensed waste facility.

3.2.3 Pollution Prevention and Emergency Spillage Response

- NIFHA will do everything practicable to minimise the potential for a spill. A management plan is to be prepared providing site spill responses, emergency contact details, equipment inventories etc.

- Spill kits will be kept on site and the contents should have the capacity to deal with the inventory of products that will be stored and handled on site. Spill kits are likely to contain absorbent mats, drain covers, bilge socks, floating “booms”, oil-absorbent granules, polythene sheeting and bags, blow back refueling collar etc.

- Spill containment equipment for minor hydraulic spills from tools etc. will be located withing the working area. Containment can be effective by the placement of spill kit equipment local to the potential source of an incident which can be effectively cleaned up preventing any environmental risk.

- An Oil Spill Contingency Plan will be drawn up which will be activated for any larger spill occurrence.

- For larger spills or releases, containment equipment should be sufficient to prevent spills or releases contaminating the environment and provide additional time to conduct an effective clean-up operation, with or without the help of specialists.

- A specialist spill contractor will be identified that can be called upon should there be a requirement to control a significant spill.

3.2.4 COSHH

- Prior to use, any potentially hazardous materials will have a COSHH assessment carried out and any required control measures put in place. Anticipated COSHH requirements are, but not limited to, hydraulic oils, diesel fuel, lubricating oil and lithium Grease.
- Storage of all hazardous substances will be controlled in accordance with COSHH Regulations.
- COSHH items are to be stored in a suitable COSHH store. All items should be labelled.
- A register should be maintained containing all harmful substances intended to be used on this project.

3.2.5 Suspended Solids

- The direction of dredging works will be orientated with the current, instead of across the current to minimise the potential for negative effects on water quality.

3.3 ECOLOGY

3.3.1 Appropriate regard for the protection of local habitats, designated sites and protected species will be given during dredging and disposal operations.

3.3.2 Flora & Fauna

- All reasonably practicable measures will be employed to minimise harm to, and disturbance of, wildlife caused by noise, dust, waste and pollution.
- Ensure no activities outside the works zone through clear delineation of the works area, and communication in site inductions.
- Site inductions for all barge crew/ construction personnel covering procedures to be undertaken to minimise disturbance to marine fauna.
- Regular inspections will be undertaken to check that detrimental impacts on ecological features are being minimised.
- Ensure that there are no physical barriers to marine faunal species movement through the water at all times.

3.3.3 Invasive Species

- In accordance with DAERA 'Standing Advice' on Marine Non-Native Species strict protocols will be in place in respect of plant and equipment used on-site. These protocols will be based on the 'Inspect, Remove, Clean, Dispose & Report' approach promoted by DAERA and Invasive Species NI. Plant and equipment will be subject to the following prior to leaving its previous location:

  - **Inspect** all equipment that has been in a waterbody (boats, trailers, engines, outboards, dredgers, weed cutting or harvesting boats, cruisers or even clothing) or terrestrial site for attached vegetation, contaminated soil or obvious animal life before moving to another waterway, catchment or site.

  - **Remove** any adhering plant, soil or animal material from your equipment for disposal before relocating to another watercourse, section of waterway or site. Ensure that all water is drained from your boat and equipment before transportation to another site and all soil is removed from machinery, as this may contain seed or plant fragments.

  - **Clean** all equipment with a power hose away from the waterbody. Use hot water (>60 degrees centigrade) where possible.

  - **Dispose** of all plant and animal material in bags or containers for disposal in bins. Do not throw them back into the water or leave them lying at the water's edge.

  - **Report** and take photos of species you think may be an INNS on the Invasive Species NI website.

- The above will also be applied to plant and equipment prior to removal from site on completion of works.

- If the presence of an invasive species is found at or adjacent to the site, an invasive species management plan will be prepared to prevent the introduction or spread of any invasive alien species within the footprint of the works.

- An invasive alien species (IAS) management Plan, will be prepared if required, which will set out best practice control methods, and will consider the following:

  - Invasive Species Northern Ireland website (**https://invasivespeciesni.co.uk/)**; and

  - DAERA Marine Invasive Non-native Species Guidance (**https://www.daera-ni.gov.uk/articles/marine-invasive-non-native-species-guidance).**

3.4 NOISE

3.4.1 NIFHA will follow best practicable means to reduce the noise effect on the local community, ecology and underwater noise on marine mammals in compliance with British Standard BS5228:2009+A1:2014 ± Noise and vibration control on construction and open sites.

3.4.2 A soft start procedure will be adopted for dredging activities to allow any marine mammals present to vacate the area.

3.4.3 Plant & Equipment

- Careful consideration will be given to the appropriate selection of plant, working methods and programming.
- Modern, silenced and well-maintained plant will be used at all times.
- Equipment and vehicles to be shut down when not in use or throttled down to a minimum.
- As far as reasonably practicable, any plant, equipment or items fitted with noise control equipment found to be defective will not be operated until repaired.

3.5 LIGHTING

3.5.1 While security and safety lighting are required, there will be a balance between achieving appropriate lighting levels and avoiding unnecessary light spillage, pollution and glare.

3.5.2 The use of artificial lighting during dredging operations will be minimised to reduce the impact on terrestrial and marine fauna. Temporary lights, if used, will be fitted with shades to prevent light spillage outside the working area.

3.6 WASTE MANAGEMENT

3.6.1 The project will adhere to the principles of sustainable waste management where waste prevention is the priority followed by reuse, recovery and recycling and as such the generation of waste will be minimised.

3.6.2 Each waste type will be classified as inert waste, non-hazardous waste or hazardous waste according to listings from the European Waste Catalogue. Each waste stream will be managed safely and legally, through a combination of re-use (on site or off-site), recycling or disposal.

- Waste containers (bins and skips) are impermeable and will prevent liquid wastes leaching.

- Sufficient space on site has been allocated for waste storage and segregation. Waste containers are clearly labelled for difference waste types to aid in segregation and are checked regularly.

- Separate facilities are provided for hazardous waste.

- Any run-off from the bunded storage area within the construction compound, and wastewater from machinery wash down will drain to foul sewer or to an appropriate water treatment and recycling system.

- Environmental records, including waste management records, will be maintained in accordance with the respective company procedure and legal requirements.

4.0 DREDGE AND DISPOSAL MONITORING

4.1 BATHYMETRY

4.1.1 Prior to the commencement of any works, NIFHA shall arrange to have a bathymetric survey carried out by an independent specialist survey company at the dredge works area. A benthic survey will be undertaken at the proposed disposal site.

4.1.2 Post works survey of the same nature will be carried out at the dredge works area and the disposal site.

4.2 ARCHAEOLOGY

4.2.1 It is unlikely archaeological remains will be found during the dredging activities as the harbours have been dredged to the proposed levels previously. However, in the event this occurs the NIFHA will seek advice from an Archaeological Consultancy as soon as practicably possible.

4.3 WEATHER

4.3.1 Consideration should be given to the possibility of extreme tidal levels occurring including wave action. Weather forecasts should be monitored on a regular basis to ensure timely action can be undertaken to secure the site.

4.3.2 The sea conditions, wind speed and tidal conditions will be monitored and reviewed by the NIFHA on a daily basis to determine if the operational weather limitations are exceeded.