Dublin Port Company

APPENDIX B

OUTLINE OTTER CONSERVATION PLAN (2026)

3FM PROJECT

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Contents

1 INTRODUCTION 1
1.1 Proposed Project 1

2 BASELINE ENVIRONMENT SUMMARY 1
2.1 Otter (2026) 1

3 SUMMARY OF ASSESSMENT OF POTENTIAL IMPACTS 4

4 PROPOSED MITIGATION MEASURES METHOD STATEMENT 5
4.1.1 Pre-Construction Surveys 5
4.1.2 Ecological Clerk of Works 5
4.1.3 Pre-Construction Survey 5
4.1.4 Removal of H3 (Potential Temporary Covered Otter Resting Place) 6
4.1.5 Noise Generating Activities 7

BIBLIOGRAPHY 9

1 INTRODUCTION

Tetra Tech was commissioned by Dublin Port Company (DPC) to prepare an Outline Otter Conservation Plan to support a planning application for the proposed 3FM Project.

The plan has been informed by otter surveys carried out between June 2022 and February 2023, and again in April, May 2024, to inform an ecological impact assessment on these species contained within Chapter 7 Biodiversity of Volume 2, Part 2 of the Environmental Impact Assessment Report (EIAR) prepared for the proposed 3FM Project (ABP Ref: PA29N.320250), and in addition, more recent and surveys carried out between December 2024 and January 2025 and up to date surveys carried out in August and September 2026 as set out in the Ecological Survey Report for Otter Report (2026).

The purpose of this outline conservation plan is to provide details on otters will be treated during the construction of the proposed 3FM Project. It is intended that if a grant of Planning Permission occurs for the proposed 3FM Project, then implementation of this outline conservation plan shall be a condition of any planning permission granted, subject to any modifications in the measured outlined herein following pre-construction surveys.

Through a series of contractual commitments with the main construction contractor, retained environmental consultants or other appointed agents for the relevant phases of 3FM Project construction, it is envisaged that DPC shall procure up-to-date preconstruction surveys for otter and finalise the 3FM Otter Conservation Plan for submission to the planning authority for their approval through the pre-commencement planning condition discharge procedure.

An Ecological Clerk of Works (ECoW) appointed by DPC or their agents will oversee and supervise the implementation of a finalised plan by the appointed contractor(s). This will require the appointed contractor(s) to prepare detailed method statements on how the protection measures set out in the conservation plan will be implemented.

All measures will be supervised by the ECoW (see further details on roles and responsibilities in Section 3).

It is intended that the plan will be updated post-consent and following Pre-Construction Protected Species Surveys. The results of these surveys will aim to update the baseline environment and if necessary, the proposed mitigation and the methodology. The appointed contractor(s) will be required to prepare method statements for the implementation of protection measures as part of the finalised plan.

These will require input of the appointed ECoW to ensure that the procedures set out in this document complement and do not conflict with any activities proposed in the method statements.

Please note that where information is outstanding, this is noted with a '[*Hold*]' to acknowledge that this information will be provided when it becomes available, and the plan updated prior to submission for discharge of conditions in advance of the commencement of construction.

1.1 Proposed Project

The proposed 3FM Project is the third and final Strategic Infrastructure Development (SID) project at Dublin Port arising from the Dublin Port Masterplan 2040. The location of the site and the red line boundary are illustrated in Figure 1.0 of the associated Ecological Survey for Otter Report (2026) and Plate 1 below.

2 BASELINE ENVIRONMENT SUMMARY

2.1 Otter (2026)

A map illustrating the location of otter holts and field signs recorded during the 2026 surveys can be found in **Figure 2.2 Otter Survey Results** (3FM Ecological Survey for Otter 2026) and below in Plate 1.

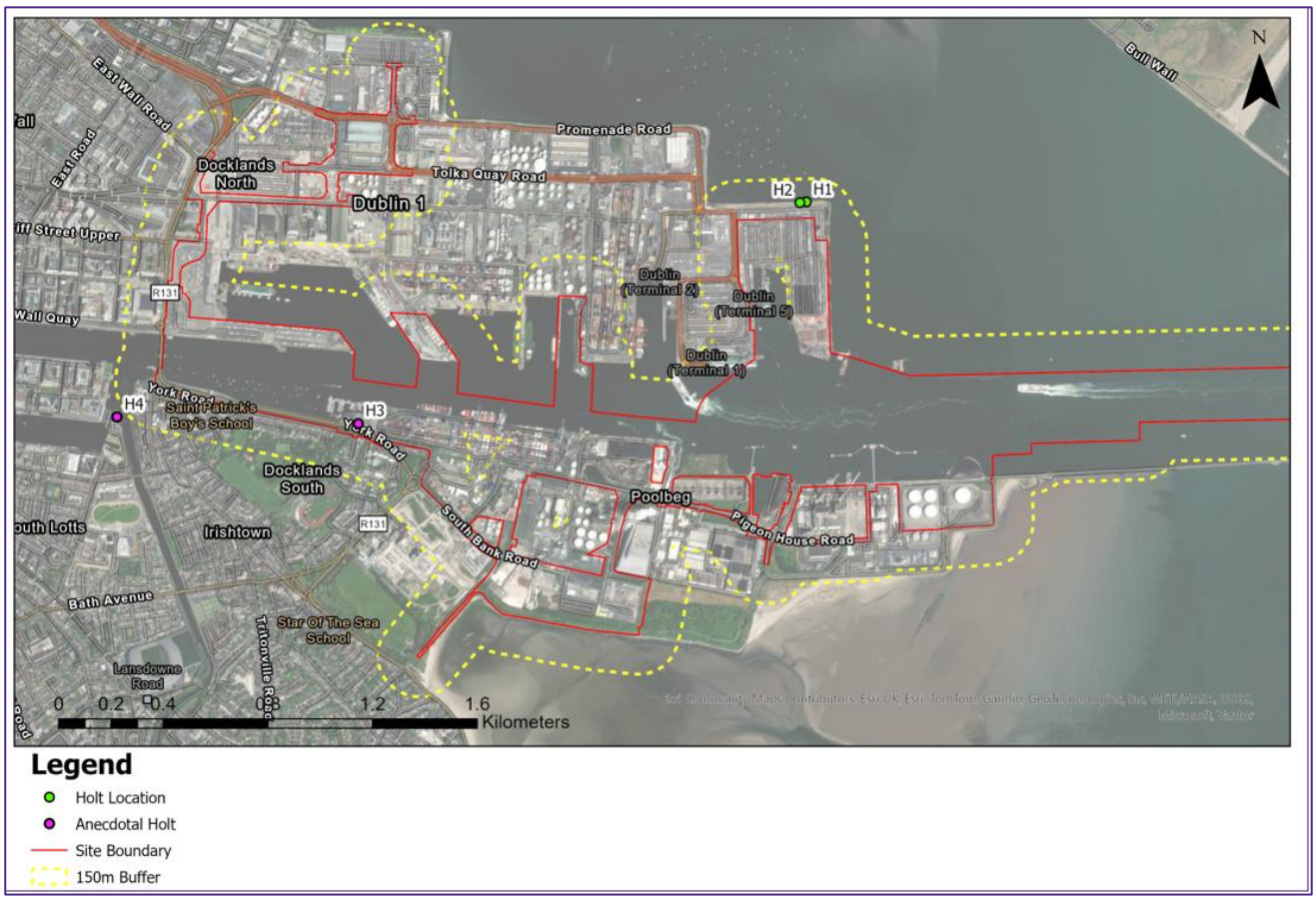


Plate 1: Figure 2.2 Otter Survey Results (3FM Ecological Survey for Otter 2026)

There were no additional otter holts or couches recorded by Tetra Tech during the 2026 survey campaign within the site of the 3FM Project or within 150 m of the red line boundary. All areas which were previously surveyed were covered again in 2026, however no evidence of otter was recorded, including spraints. It is acknowledged that this is not indicative of otter absence, however, is consistent with previous assessments suggesting that otter activity is relatively low within the lower Liffey/Dublin Port Area. Two otter spraints were recorded in May 2026 along the northern Dublin Port Boundary (Tolka Estuary side), outside of the 3FM survey area during an Artificial Otter Holt Suitability Assessment Survey.

Currently there are no confirmed natural otter holts within 150m of the 3FM project boundary (see 3FM Ecological Survey for Otter 2026 for more details). Two recently constructed artificial holts are present approximately 60m from the 3FM project boundary at Terminal 5 on the northern side of the River Liffey in the general area of former Holts 1 & 2 (unconfirmed otter holts). To date, there has been no evidence of otter occupancy, however this is not unusual given the relatively short time since they were constructed

No evidence of otter was recorded at Anecdotal Potential Holt 3 during 38 nights of non-intrusive trail camera monitoring.



Plate 2 showing one of two artificial otter holts constructed at the general location of former H1 & 2



Plate 3: showing locations of gaps under shipping container structure (Anecdotal Potential Holt 3)

3 SUMMARY OF ASSESSMENT OF POTENTIAL IMPACTS

No field evidence of otter activity was recorded during the 2026 surveys. This result is not considered indicative of otter absence from the wider area. Rather, it is consistent with previous assessments, which indicate that otter activity is relatively low within the lower River Liffey and Dublin Port area. The Dublin City Otter Survey, undertaken as an action of the Dublin City Biodiversity Action Plan 2015–2020, surveyed habitats along approximately 44.7 km of the Dublin City coastline, including Dublin Port. The port area was characterised by low levels of otter seclusion due to the high level of human activity, and the frequency of otter signs and activity within the port and surrounding coastal habitats ranked near the bottom of the areas surveyed (Macklin et al., 2019).

Two infrared, motion-activated, low-glow trail cameras were deployed approximately 5 m from the gaps beneath the shipping-container structure. The cameras were installed on temporary scaffolding poles associated with boat-repair works and their deployment was considered non-intrusive in the context of the existing industrial activity within the yard. No evidence of otter activity was recorded during 38 nights of monitoring.

The gap beneath the Sea Safari office shipping container could provide a temporary, covered resting location for otter, sometimes referred to as a hover. However, there was no evidence of prolonged, repeated or established use. Accordingly, the feature is not considered to constitute a confirmed holt, defined as an enclosed or underground resting or breeding site, or a couch, defined as an above-ground resting place. Historical anecdotal reports of otters beneath the structure may therefore relate to brief or sporadic use as a temporary covered resting place rather than use as an established holt or couch.

The proposed removal of the shipping container would result in the loss of a potential, but unconfirmed and apparently inactive, temporary otter resting resource. Given the absence of recorded otter activity during the monitoring period, the lack of evidence for prolonged or repeated use, and the availability of alternative resting opportunities within the wider area, including suitable habitat associated with the River Dodder and River Tolka, the loss is not anticipated to result in a significant adverse effect on the local otter population. The effect is considered to represent a minor loss of potential resting habitat rather than the loss of a confirmed holt or couch.

Noise propagation and underwater sound exposure associated with the 3FM Project were modelled for short- and long-duration operational scenarios, including impact piling, dredging, sheet piling and vessel activity. Temporary Threshold Shift (TTS) refers to a reversible reduction in hearing sensitivity following exposure to elevated underwater noise, while Permanent Threshold Shift (PTS) refers to an irreversible reduction in hearing sensitivity.

Otters, classified in Chapter 12 of the EIAR as other marine carnivores in water (OCW), are considered less sensitive to underwater noise than true marine mammals because their auditory systems are primarily adapted to airborne sound. Otters are also expected to use areas subject to noise-generating activities intermittently, with most activity occurring within connected river systems. The modelled TTS and PTS risk ranges indicate that otters are unlikely to exceed either threshold, except in the unlikely event that an individual remains stationary in very close proximity to piling activities for an extended period.

At the two locations identified as being of greatest relevance to otter, SPAR Bridge, near the mouth of the River Dodder where otter has been observed occasionally (anecdotal stakeholder observation), and Area N, near the two artificial otter holts at the location of former Otter Holts 1 and 2, the modelled TTS and PTS risk contours did not extend into key otter habitat or the recently constructed artificial holts.

Overall, the assessment indicates that the proposed works would result in a minor loss of an unconfirmed and apparently inactive potential temporary resting resource but would not result in the loss of a confirmed otter holt or couch. The available evidence also indicates that significant adverse effects on otters arising from underwater noise are unlikely. Mitigation and conservation measures intended to address the identified potential effects are set out separately in the relevant mitigation section below.

4 PROPOSED MITIGATION MEASURES METHOD STATEMENT

4.1.1 Pre-Construction Surveys

Pre-construction surveys will be undertaken to ascertain any changes to the baseline findings.

If new holts (including potential holts) are found, these will be referenced as H6, H7, H8 and so on.

The following sections set out details on the methodology and programme for the protection of otter during the pre-Construction Phase, Construction Phase and post-Construction Phases of the Proposed Project. The requirements for monitoring are also outlined in Section 3.1.3.

The ECoW appointed by DPC will review the details below following completion of pre-construction surveys and send an updated version of this outline conservation plan to the planning authority for approval. Once approved, the finalised conservation plan will be issued to the appointed contractor(s) to inform the method statements for the implementation of the methodologies outlined in this plan.

The ECoW will request a detailed programme of works from the appointed contractor(s) to plan for the implementation of the mitigation measures set out in the finalised conservation plan.

4.1.2 Ecological Clerk of Works

An ECoW will be appointed by DPC to advise on the effective implementation of the biodiversity mitigation measures specified in the 2024 planning application (ABP Ref: PA29N.320250), Outline Otter Conservation Management Plan and any planning consent conditions including those relating to the protection of otters.

DPC will appoint a suitably qualified and experienced ecologist to act and discharge the role and responsibilities of ECoW during the Construction Phase of the Proposed Project. The appointed ECoW will be appointed prior to the commencement of construction. Their key role and responsibilities will be to:

- Update and finalise the otter conservation plan for issue to the planning authority prior to any works commencing;
- Implement and oversee the measures outlined in the otter conservation plan;
- Implement the pre-commencement toolbox talks with all personnel on-site to ensure that they understand the requirements of the otter conservation plan and the strict legal protection for otter;
- Provide the watching brief necessary for monitoring at pre-Construction and Construction Phases;
- Ensure that works do not interfere with the temporary exclusion zones and ensure temporary exclusion zones remain intact during the works;
- Liaise with DPC or their appointed contractor(s) during the Construction Phase and to resolve any issues arising which could harm otters or their holts; and
- Provide final reports to the planning authority and the NPWS relating to the implementation of this conservation plan. In this regard, the appointed ECoW will provide a report to the planning authority on the implementation of the methodology within four weeks of implementation of the otter protection measures during the pre-Construction Phase and within four weeks after the completion of the Construction Phase.

4.1.3 Pre-Construction Survey

To confirm that there have been no significant changes to the otter activity and baseline conditions identified in the 2024 planning application and recent surveys, including the continued applicability of the specified mitigation measures, a pre-construction otter survey will be undertaken by a suitably qualified ecologist prior to the commencement of any works on site. The survey will be undertaken in accordance with relevant National Parks and Wildlife Service (NPWS) guidance and the Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes (NRA, 2008/2009), as applicable.

The survey will assess the site and adjoining suitable habitat for evidence of otter activity, including holts, couches, temporary resting places, tracks, spraints and other signs of use. The survey will be undertaken

sufficiently close to the commencement of works to ensure that the findings remain representative of conditions at the start of construction, and in any event no more than 10–12 months prior to construction. Where required, additional monitoring, including camera-trap monitoring, will be undertaken.

If an active holt, natal holt, couch or other evidence of otter use is identified, works in the relevant area will not commence until the findings have been reviewed by the project ecologist and the appropriate measures have been agreed with NPWS. Where required, an NPWS derogation licence will be obtained before undertaking works that could disturb otters or damage or destroy a breeding or resting place. These provisions reflect the strict protection afforded to otters and their breeding and resting places under Irish wildlife legislation.

4.1.4 Removal of H3 (Potential Temporary Covered Otter Resting Place)

All works associated with the removal of H3 will be undertaken in accordance with the requirements of the relevant National Parks and Wildlife Service (NPWS) licence, obtained prior to commencement of the works. The following mitigation measures will be put in place.

The following measures will be implemented:

- Trail cameras will be deployed to monitor the gaps beneath the shipping container, additionally:
- A suitably qualified ecologist will inspect H3 immediately prior to removal.
- The inspection will confirm whether an otter is present and whether the feature shows evidence of active or recent use.
- The shipping-container structure will be removed in a controlled and gradual manner.
- Ecological supervision will be provided during removal if considered necessary.
- If an otter, evidence of recent otter use, or another protected species is identified, works will stop immediately.
- The ecologist will determine the appropriate course of action, including any requirement for consultation with the relevant authorities.
- The removal will be scheduled, where practicable, to minimise the potential for disturbance to otters using the wider area.
- An artificial otter holt will be constructed adjacent to the Tom Clarke Bridge.
- The artificial holt will be installed and made available before, or at an appropriate stage in advance of, the removal of H3.
- The artificial holt will be implemented in accordance with Appendix B: *Outline Otter Conservation Management Plan*.

Subject to the implementation of these measures, the removal of H3 is not anticipated to result in a significant adverse effect on the local otter population.

4.1.4.1 Provision of Compensatory Artificial Holt

To compensate for the loss of the potential, albeit unconfirmed and apparently inactive, temporary covered otter resting resource, an artificial otter holt will be provided adjacent to the Tom Clarke Bridge. The holt will be incorporated into the boulder rock defence during construction and will be installed and made available before, or at an appropriate stage in advance of, the removal of H3.

The final design and dimensions of the artificial otter holt will be confirmed at the construction stage. However, it is envisaged that the holt chambers and access tunnels will comprise precast concrete structures. The chambers are expected to be approximately 800 mm wide × 600 mm long × 600 mm high, with access tunnels formed using pipes approximately 300 mm in diameter. The holt chambers will be positioned approximately 1.6 m above Mean High Water Springs (MHWS), with the access-tunnel entrances located approximately 1.5m above MHWS. All works associated with the construction and installation of the artificial otter holt will be undertaken in accordance with the requirements of the relevant National Parks and Wildlife Service (NPWS)

licence. The indicative proposed location is shown in Appendix A - **Figure 2.1a & b**: Indicative Location of Proposed Artificial Holt (H3 Compensation).

4.1.5 Noise Generating Activities

4.1.5.1 Timing and Season Restrictions

4.1.5.1.1 Piling

Piling is restricted to 0700h and 1900h (Monday to Friday), 0800h to 1300h (Saturday) and no piling will take place on Sundays or Bank Holidays. Therefore, during piling periods, active piling operations will only occur for a maximum of about 38% of that period, allowing extensive unimpeded use of the harbour area, particularly during nighttime by marine mammals throughout project construction. In addition, impact piling in ports is seldom a continuous activity, but is done in small bouts of 5-10 minutes with pile corrections and testing happening between these bouts of piling. The total daily duration of impact piling is a fraction of the time spent during pile installation.

Capital dredging is proposed to be undertaken on a 24-hour, 7-day-per-week basis, subject to seasonal restrictions. Capital dredging will be prohibited during the period October to March**, inclusive**, to avoid disturbance to nesting terns.

Riverside impact piling will also be subject to seasonal restrictions to minimise the potential for disturbance to migrating salmon. The proposed closed periods are as follows:

- **March to May, inclusive:** impact piling will be prohibited in relevant riverside areas during the peak smolt migration period, when juvenile salmon migrate from the river to the sea.
- **July and August:** impact piling will be prohibited in the vicinity of the turning circle and outer area during the peak period for the return migration of adult salmon from the sea to the river.

Vibratory piling may be undertaken during these periods, subject to compliance with the relevant environmental controls and monitoring requirements.

Impact piling within 75 m of Dublin Port's tern colonies will also be subject to seasonal restrictions to minimise disturbance to breeding terns. Impact piling will be prohibited during **May and June, inclusive**, in accordance with the proposed closed periods shown in Figure 5.37. These restrictions coincide with the salmon-related impact piling restrictions applicable to Areas K and N.

Further mitigation will include implementation of a Marine Mammal Management Plan which requires qualified Marine Mammal Observers to carry out pre-watches to confirm the absence of otters in a mitigation zone of 1000m before piling will be allowed to commence. Piling will also include a soft-start procedure with a gradual ramp up of piling activity to allow any mammals to flee the location before maximum noise outputs.

4.1.5.1.2 Dredging

Dredging will take place at Area N, Area K, and the Turning Circle and at the Maritime Village. The capital dredging works will be carried out using a trailing suction hopper dredger and/or a backhoe dredger. Other ancillary equipment will include a survey vessel and a bed-leveller to remove peaks and troughs created by the dredger. All capital dredging works will take place within the period October to March and will be spread over a number of years (DPC is seeking permission for a 15-year project period). No overspill of the hopper will be permitted during the loading operations to minimise the amount of suspended solids within the River Liffey channel during the loading operations. When working within the navigation channel, the TSHD will also work in the direction of flow to avoid any potential of creating elevated levels of suspended solids across the River Liffey.

The volume of sediment to be dredged in various elements of the 3FM Project is detailed in Table 8.14 of the 3FM EIAR, and total volume is estimated at 1,259,000m3. Of this, 1,189,000m3 has been assessed as Class 1 and suitable for disposal at sea (3FM EIAR, Table 8.24). It is proposed to dispose of this dredged material at the licensed disposal site at the entrance to Dublin Bay, located to the west of the Burford Bank subject to separate licensing (Figure 2 3). The remaining 72,000m3, which has been classified as Class 2 material, will be recovered or disposed to an appropriate facility.

Dredging to construct the Turning Circle is programmed to commence in Year 2 of the project (currently 2028). Dredging of Area N will commence soon after. These elements of dredging should be completed in four winter dredging seasons. Further dredging for the SPAR and Maritime Village works is not scheduled to commence until year 10 of the project (currently 2036).

Mitigation in the form of a Marine Mammal Monitoring Plan (MMMP) will be implemented by trained and experienced Marine Mammal Observers (MMOs) throughout the project and for all dredging activities in accordance with the requirements of NPWS Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (2014). This includes the implementation of a 500m monitoring zone for marine mammals (including otter). Dredging operations may only commence when the MM Observer has confirmed that no marine mammals are present in the monitoring zone for a period of at least 30 minutes.

A detailed assessment of underwater noise impacts is presented in 3FM EIAR Chapter 12, and includes noise generated by dredging and its impacts on otter. The analysis indicates that temporary threshold shift (TTS) ranges for the Other Carnivores in Water group (OCW), in which otter is placed, are less than 5m for one hours' exposure to dredging. Underwater noise transmission loss in Dublin Port is significant due to the shallow water and the prevalence of silts and sands on the seabed of the port. Noise generated by operation of the TSHD is unlikely to have any significant impact on otters.

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Appendix A

A.1 Figure 2.1a and 2.1b: Indicative Location of Proposed Artificial Holt (H3 Compensation)

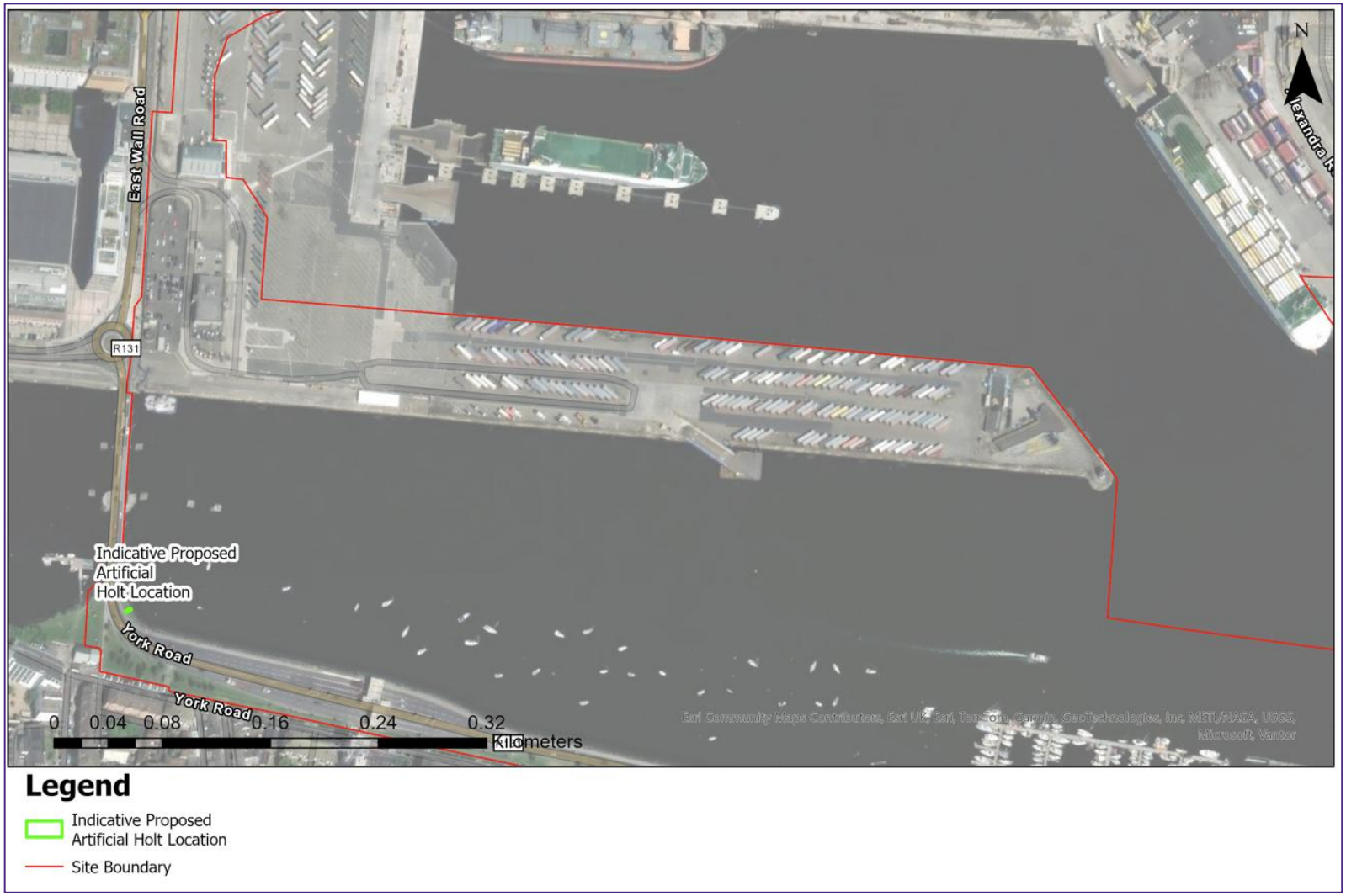


Figure 2.1a: Indicative Location of Proposed Artificial Holt (H3 Compensation)



Figure 2.1b: Indicative Location of Proposed Artificial Holt (H3 Compensation)