

Technical Note 1



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ECOLOGICAL SURVEY FOR OTTER & BADGER (2025)

3FM Project, Dublin Port



794-NI-WAE-02239
3FM Project, Dublin Port
February 2025
A01

Due to the high level of persecution of badger and legal protection afforded to this species (badger is listed in the Fifth Schedule of the Wildlife Acts 1976 to 2023 and protected under Section 23 of the Wildlife Acts), information pertaining to the location of setts is treated as confidential.

For this reason, figures illustrating and identifying the location of badger setts which are presented in this survey technical note are not intended to be made available to the general public on either the An Bord Pleanála website (<https://www.pleanala.ie/en-ie/case/320250>) or the dedicated 3FM Project website (<https://dublinport3fm.ie/>) where environmental information in relation to the proposed 3FM Project is otherwise available.

This survey information is intended to be provided to the competent authority, An Bord Pleanála, and the Development Applications Unit (DAU) of the Department of Housing, Local Government and Heritage under separate cover with the sole purpose of preventing the location of badger setts being easily identified by the general public.

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Dublin Port Company

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Appendix A Outline Badger Conservation Plan

1 INTRODUCTION

RPS was commissioned by Dublin Port Company to carry out an Ecological Survey for Otter and Badger to support a planning application for the proposed 3FM Project.

RPS carried out an Ecological Survey for Otter and Badger between June 2022 and February 2023 and again in April and 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-320250-24)

The aim of this technical note is to provide the results of further otter and badger surveys carried out in December 2024 and January 2025 in response to a request for additional information made by the Department of Housing, Local Government and Heritage (DHLGH) in their submission to ABP during the public consultation process for the 3FM Project planning application.

The survey technical note should be read in conjunction with the DPC response to the DHPLG, the entire planning application pack and the EIAR of the 3FM Project.

1.1 Protection of Badger Setts

As noted at the front of this technical note and as explained in the main body of text responding to the Department's queries, due to the high level of persecution of badger and the legal protection afforded to this species (badger is listed in the Fifth Schedule of the Wildlife Acts 1976 to 2023 and protected under Section 23 of the Wildlife Acts), information pertaining to the location of setts is treated as confidential.

For this reason, figures illustrating and identifying the location of badger setts which are presented in this survey technical note are not intended to be made available to the general public on either the An Bord Pleanála website (<https://www.pleanala.ie/en-ie/case/320250>) or the dedicated 3FM Project website (<https://dublinport3fm.ie/>) where environmental information in relation to the proposed 3FM Project is otherwise available.

This survey information is intended to be provided to the competent authority, An Bord Pleanála, and the Development Applications Unit (DAU) of the DHLGH under separate cover with the sole purpose of preventing the location of badger setts being easily identified by the general public. It is a confidential appendix to the main response document to be provided to the Board.

1.2 Ecological Survey for Otter and Badger

The aim of the technical note is to provide a description of the survey methods used, to provide the detailed results of further otter and badger surveys, and to provide an interpretation of the results. The badger survey results have been used to inform an Outline Badger Conservation Plan (Appendix A).

1.3 Proposed 3FM Project

As detailed in Chapter 5 (Project Description) of the submitted EIAR, the proposed 3FM Project is the third and final Strategic Infrastructure Development (SID) project at Dublin Port from the Dublin Port Masterplan 2040. The location of the site and the red line boundary are illustrated in **Figure 1.0 Site Location** (note figures are included at the end of this Technical Note).

2 METHODOLOGY

2.1 Statement of Authority

David McCormick, author and lead mammal surveyor, is a Senior Ecologist with RPS and holds a BSc (Hons) in Physical Geography and English, a MSc in Ecological Management and Conservation Biology and has over 12 years of experience in the field of ecology. David is a protected species licence holder and has experience of mammal survey including walkover surveys, infra-red camera monitoring and Ecological Clerk of Works (ECoW). David is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Dave Welsh, mammal surveyor and reviewer, is a Principal Ecologist with RPS and holds a BSc (Hons) in Marine Science, a MSc in Ecological Management and Conservation Biology with over 10 years of experience in ecological consultancy. Dave is a protected species licence holder and has extensive experience of mammal survey including walkover surveys, infra-red camera monitoring, ECoW, derogation works, licenced sett closures, bait-marking surveys and artificial badger setts. Dave is an associate member of the CIEEM and a former member of the Northern Ireland Badger Group.

The technical note has additionally been reviewed and edited by Suzanne Lowry, a Senior Associate of Ecology within RPS. Suzanne holds a BSc (Hons) in Biological Sciences, a MSc in Environmental Management and has over 20 years of experience in the field of ecology and environmental consultancy. Suzanne has extensive experience of project management and co-ordination, ecology field survey and technical report writing. Suzanne is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

The technical note has been approved for issue by James McCrory, Technical Director of Ecology with RPS. James holds a BA (Hons) in Natural Sciences (Mod) Botany and a MSc in Habitat Creation and Management. James is a Chartered Environmentalist (CEnv), a Chartered Ecologist (CEcol), a Chartered Biologist (CBiol) and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and the Royal Society of Biology (MRSB). James is a former member of the CIEEM Irish Section Committee and CIEEM Policy Review Group in Ireland and a member of the CIEEM technical working group updating the Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland. James currently sits on the CIEEM technical working group for EclA accreditation across the Institutes' practitioner network.

RPS confirm that the professional judgement expressed herein is the true and bona fide opinion of our professional ecologists. The information prepared and provided is accurate at the time of issue and has been prepared and provided in accordance with the CIEEM Code of Professional Conduct (CIEEM, 2024).

2.2 Desk Study

The original desk study undertaken to inform Chapter 7 Biodiversity of Volume 2, Part 2 of the EIAR prepared for the proposed 3FM Project, has been updated for the purpose of this technical note, in response to a request by the DHLGH.

The National Biodiversity Data Centre (NBDC) Biodiversity Maps portal was used to identify the existence of historical records of otter and badger within 1 km of the site of the proposed project. Information from the NBDC Biodiversity Maps was reviewed in January 2025.

2.3 Otter Survey

Further otter surveys were carried out on the 12th, 18th and 23rd of December 2024; the 14th and 17th of January 2025, and the 19th of February 2025 to establish the presence of otter holts and/or otter foraging areas within the site of the 3FM Project and within 150 m of red line boundary. The 150 m extension is in consideration of a potential occurrence of a natal holt. A boat-based survey was carried out on the 14th of January 2025. The locations of otter holts were recorded, mapped and photographed where present.

The site was surveyed for evidence of otter including:

- Holts
- Couches
- Spraint sites
- Feeding sites
- Paths
- Slides
- Footprints

2.3.1 Survey Limitations

Healthy and safety constraints provided limitations for access where areas of rock armour were hazardous or in areas where the intertidal zone was inaccessible. Tidal constraints provided limitations for access during the boat-based survey.

2.4 Badger Survey

Further badger surveys were carried out on the 12th, 18th and 23rd of December 2024; the 17th of January 2025, and the 19th of February 2025 to establish the presence of badger setts and/or badger foraging areas within the site of the 3FM Project and within 50 m of the red line boundary. The location of badger setts, the dimensions of sett entrances and the direction of entrance tunnels was recorded, mapped and photographed where present.

Sett entrances with a minimum of 25 cm in diameter were classified as badger setts unless stated otherwise. The size and shape of an external entrance and internal tunnel alongside other evidence was used to classify each badger sett and distinguish it from other mammal entrances. Badger setts are distinguished from other mammal entrances by generally having a typical D-shaped entrance and tunnel that is wider than it is tall with a width of between 25 - 30cm and a height of 20 - 30cm as is described in standard published literature on badgers and badger surveys.

The site was surveyed for evidence of badger including:

- Setts (underground structures displaying signs of current or recent use and occupation or disused holes made by badgers)
- Paths & Trails (networks of paths linking setts with foraging habitat)
- Tracks & Prints (All tracks, trails and paths were followed to locate setts and other field signs)
- Guard Hairs
- Snuffle Holes & Feeding Scrapes (vegetation or soft soil turned over during foraging)
- Scratching Posts (claw marks on tree trunks, fallen trees etc.)
- Breach Points (gaps in fences and hedges or crossing points over roads)
- Dung Pits (single faeces deposits placed in a small excavation)
- Latrines (collection of faecal deposits used to mark territorial boundaries)

2.4.1 Badger Sett Classification

Badgers are nocturnal and evidence of their presence is usually established by field signs rather than visual observation. Badgers live in social groups within a territory consisting of one or more setts and feeding grounds. A sett consists of a network of underground tunnels and chambers. Badgers are territorial and

remain loyal to their setts unless frequently disturbed. Badger setts are classified into four types as set out below based on specific characteristics (Andrews 2013).

2.4.1.1 Main Sett

The main sett is in continuous use and is used for breeding and over-wintering by a social group of badgers. Only one main sett exists within the territory of each social group and it is relatively centrally located within the groups range. The sett consists of multiple entrances with large spoil heaps and obvious well used surface paths between entrances. Breeding activity including visible signs of bedding material may be apparent.

2.4.1.2 Annexe Sett

The annexe sett is usually less than 150 m from the main sett. The sett consists of several entrances and is linked by well-used surface paths to the main sett but is not connected underground. It is not in continuous use.

2.4.1.3 Subsidiary Sett

The subsidiary sett is usually at least 50 m from the main sett. The sett consists of a number of entrances but is not linked by surface paths to the main sett and is used only intermittently.

2.4.1.4 Outlier Sett

The outlier sett is distant from the main sett and consists of only one or two entrances with small or absent spoil heaps and no surface paths connecting to the main sett. It is used for short periods sporadically.

2.4.2 Survey Limitations

In areas of restricted access due to the presence of dense impenetrable scrub, an assessment of the likely importance of the area to badger was made based on the known local ecology of the species, the presence or absence of badger trails entering the area, identified field signs in the vicinity and local habitat suitability and quality.

2.5 Anecdotal Stakeholder Observations

Anecdotal evidence was also gathered from local stakeholders of Dublin Port to gather further information on the presence of otter and badger activity within the site.

3 RESULTS

3.1 Desk Study

The NBDC Biodiversity Maps identified no new records of otter or badger within 1 km of the site since the submission of the original planning application.

3.2 Otter Survey Results

A map illustrating the location of otter holts and field signs can be found in **Figure 2.0 Otter Survey Results**.

There were no additional otter holts or couches recorded by RPS in this most recent survey campaign within the site of the 3FM Project or within 150 m of the red line boundary.

The otter holts identified during the original survey included two holts located approximately 60 m from the red line boundary at Terminal 5 on the northern side of the River Liffey. Otter Holt 1 remains active evidenced by fresh spraints (**Figure 2.0**). Otter Holt 2 has no evidence of mammal activity (**Figure 2.0**).

Two confirmed otter spraints were recorded. The first on 17th January 2025 at the location of the proposed Turning Circle of the 3FM Project. The second was recorded on the Great South Wall at the ESB's Poolbeg Power Station. Three other (unmapped) spraint-like droppings were recorded: two within the vicinity of the Pigeon House Power Station; and the third at the entrance to the walled area at the Grand Canal Docks. All were old and odourless.



Plate 1a showing a single spraint at the corner of the proposed 3FM Project Turning Circle



Plate 1b showing a spraint (and feeding signs) on the Great South Wall at the Poolbeg Power Station

3.2.1 Anecdotal Stakeholder Observations

Otter has previously been seen to seek shelter under the offices of Sea Safari Tours Ltd at Poolbeg Marina (**Figure 2.0**), at Holt 3. The stakeholder confirmed that this activity ceased until very recently and speculated that otters left this location due increasing numbers of fox *Vulpes vulpes*. However, on the 6th February 2025, the stakeholder contacted RPS to confirm a single otter was observed going under the offices of Sea Safari Tours Ltd.

The same stakeholder has observed otter entering the walled enclosure by the dwelling at Grand Canal Docks (**Figure 2.0**) in the past via a hole in the brickwork at the top of the steps, namely Holt 4. The stakeholder confirmed that this activity has now ceased. This enclosed garden is located immediately beside a source of freshwater, the Grand Canal.

RPS have also been informed of a stakeholder having observed an otter holt/couch (Holt 5) at the floating dock of the MV Cill Airne Boat Bar and Restaurant (**Figure 2.0**).

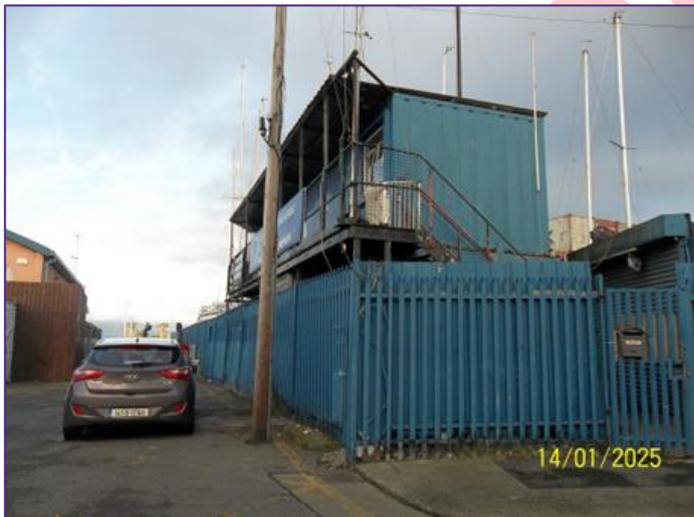
Each of the referenced features are presented in Plates 2 – 6 below. The location of otter holts, features, and field signs can be found in **Figure 2.0 Otter Survey Results**.



Plate 2 showing Otter Holt 1 (active)



Plate 3 above showing Otter Holt 2 (inactive)



Plates 4a & 4b showing the offices of Sea Safari Tours Ltd at Poolbeg Marina beneath which otter has been reported to shelter (stakeholder observation)



Plate 5 showing a walled enclosure and associated dwelling at Grand Canal Docks (Holt 4). Otter was reported to access this enclosure via a small missing section of bricks to shelter (stakeholder observation).

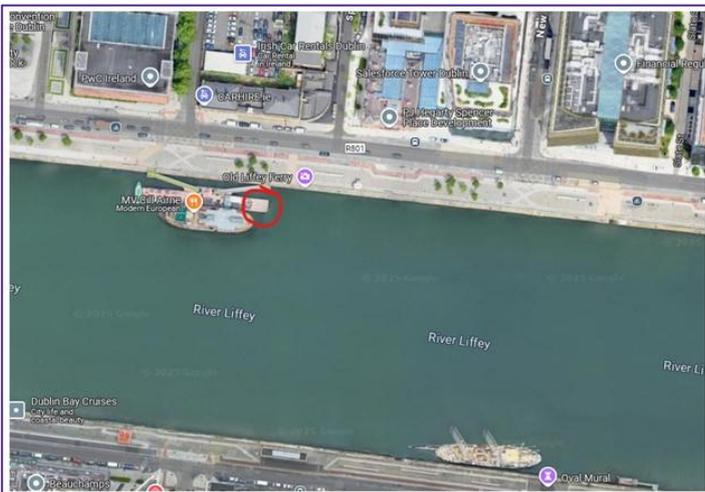


Plate 6 showing the location of an unverified otter couch/holt (stakeholder observation) at the floating dock of the MV Cill Airne Boat Bar & Restaurant (Holt 5)

3.3 Badger Survey Results

Badger setts were recorded in five locations within the survey area. A map illustrating the location of badger setts and field signs can be found in **Figure 3.0 Badger Survey Results**. Badger Setts 1 - 5 are illustrated at a finer scale (1:500) in **Figures 3.1** and **3.2** respectively. Each of the badger setts are described as follows with accompanying plates.

3.3.1 Badger Sett 1 (S1)

There is an existing (appearing dry during spells of rain) culvert located immediately outside the perimeter fence separating the Glass Bottle Site from the site of the 3FM Project. A badger trail was seen to connect this feature with Sett 2.

It is intended that this sett will be permanently closed to facilitate the proposed 3FM Project.



Plate 7 showing the access point into the culvert below.



Plate 8 showing the now enclosed area in which Setts 1 and 2 occur and the provision of a badger access pipe.

3.3.2 Badger Sett 2 (S2)

Sett 2 is located 38 m south-southwest of S1 and 22 m from the red line boundary of the 3FM Project. It had a large, fresh spoil heap indicating that it is regularly used by badger.

Both S1 and S2 are enclosed by a perimeter fence. The construction contractor for the Glass Bottle site development currently under construction has provided badgers with access to the compound via two separate precast concrete pipes coming through the fencing. These setts have been monitored using camera traps by ecological consultants (Altamar Ltd.) appointed for the construction phase of the Glass Bottle site development. RPS has requested information to inform this survey technical note and help ascertain the current status of S1 and S2. Altamar Ltd. describe setts 1 and 2 as being both very active.

Sett 2, which is a true (natural) badger sett may function as a main badger sett belonging to the clan translocated from this area to Irishtown Nature Park in 2022.

It is intended that this sett will be retained and not impacted by the proposed 3FM Project.



Plate 9 showing S2 with freshly excavated spoil.

3.3.3 Badger Sett 3 (S3)

S3 is a single entrance sett located within the red line boundary of the 3FM Project.

The sett is located beneath roadside scrub, namely thick continuous buddliea *Buddleja davidii*. It has a large mound with scattered bedding and rubbish. A single latrine was found nearby.

Infra-red camera monitoring was deployed for a three-week period (23rd December 2024 – 14th January 2025) to determine the status of the sett. Badger was recorded on 14 out of the 21 nights monitoring. The first badger seen going in and out again was on 8th January and continued to do so on subsequent nights until the end of the monitoring period. In all instances, a badger went in and came out straight away. There were only two instances where a badger entered the sett and stayed, and these were for short periods of c. 10 - 11 minutes only. There was no evidence of badgers occupying the sett during the daytime, and therefore it can be concluded that this is not a higher order sett and is most likely an outlier sett. Fox was also recorded entering the sett on occasions.

This sett will be closed to facilitate the proposed 3FM Project.



Plate 10 showing S2 with freshly excavated spoil.



Plate 11 showing a badger entering sett S3 on 12th January 2025

3.3.4 Badger Sett 4 (S4)

Sett 4 is a heavily concealed single entrance sett, located just off the existing coastal path, within the red line boundary of the 3FM Project. It has a suitably sized, characteristic D-shaped entrance. It appears to be inactive and filled with leaf litter. The entrance is pictured in Plate 12 below. It is considered to be an inactive outlier sett.

This sett will be closed to facilitate the proposed 3FM Project.



Plate 12 showing the entrance of S4.

3.3.5 Badger Sett 5

Sett 5 is a large active main sett located on the red line boundary of the 3FM Project at Area O. The sett is located on approximately 0.36 ha of linear enclosed grassland, that is proposed as an extension to Irishtown Nature Park, between Area O and Irishtown Nature Park. This well-established sett is located in a vegetated area on the edge of Irishtown Nature Park, 45 m south of an existing artificial badger sett constructed adjacent to the eastern boundary of the proposed 3FM Project. The artificial sett was constructed in recent years prior to the commencement of development of the Glass Bottle site development in Irishtown Nature Park and is

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accessible from the Brent Geese compensation field between the Ringsend WwTP development and Irishtown Nature Park.

The sett consists of a minimum of seven entrances (E1 – E7). The entrances are in two separate clusters (E1, E2, E3, E7 - large fresh spoil heaps & E4, E5 & E6) implying a main and annexe sett complex (Setts 5a and Sett 5b). Most entrances are heavily concealed by impenetrable bramble *Rubus fruticosus*. Four entrances were observed from within the site looking through the boundary fence. Entrances E1, E2 and E3 had large, fresh spoil heaps.

A single camera trap was deployed along a path to E3 for three weeks, between 23rd December 2024 and 14th January 2025, to ascertain badger activity levels at the sett. Badger was recorded on 15 out of the 21 days monitoring. It is highly likely that badgers used other entrances on the nights which were not recorded by the trail camera.

This sett will be retained and protected throughout construction and will be not impacted by the proposed 3FM Project.



Plate 13 showing the Sett 5a Entrance E1



Plate 14 showing the Sett 5a Entrance E2



Plate 15 showing Set 5a Entrance E3



Plate 16 showing Set 5a Entrance E7



Plate 17 showing Set 5b Entrance E4

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Plate 18 showing Set 5b Entrance E5



Plate 19 showing Set 5b Entrance E6

3.4 Mammal Activity

A latrine was found at the proposed 3FM Project Turning Circle in a site known as the Berth 47A hardstanding area. Snuffle holes/scrapes were recorded in Area O and along the high bund along the coastal path connecting Sean Moore Park and Irishtown Nature Park.

A large entrance was identified within the vicinity of a rabbit warren at the 3FM Project Turning Circle. This was suitably sized for otter and as such infra-red camera monitoring was undertaken for three weeks between 23rd December 2024 and 14th January 2025. There was no otter recorded using the entrance. Badger was seen passing the entrance on two occasions over the 21-day monitoring period, however no mammals were observed entering the entrance.



Plate 20 showing a larger mammal hole subject to camera trap monitoring in the vicinity of a rabbit warren in an area of the Berth 47A hardstand site in a location proposed for the 3FM Project Turning Circle.

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4 DISCUSSION & ANALYSIS OF RESULTS

4.1 Otter

There were no new otter holts or couches recorded within the site of the 3FM Project or within 150 m of the red line boundary since the original surveys in 2022-2023.

There was evidence of otter at three locations:

- Fresh sprainting at the known holt at Masterplan Plot C (Terminal 5) at the Alexander Road extension on the northern port lands.
- Single spraint at the corner of the proposed 3FM Project Turning Circle.
- Single spraint on the Great South Wall at the ESB's Poolbeg Power Station.

In addition, as noted in Section 3.2.1, as recently as 6th February 2025, RPS were informed of an otter sighting at a former 'inactive' holt (Holt 3).

In coastal areas, otters usually alternate between marine and freshwater habitats (Kruuk, H 1995). They also require sources of freshwater to wash saltwater off their coats prior to resting in their coastal holts. Otters must keep their fur in good condition. It has been shown that seawater reduces the waterproofing properties of otter fur and this is why freshwater sources are so important for otters living on the coast. If they are unable to wash in freshwater, salt crystals begin to form in the fur and the guard hairs clump together, reducing insulating properties (Chanin, 2003). Their coastal territories will always include a stream or spring within close proximity to their holts with accessibility over land (NPWS, 2025). In the Shetland Islands, coastal otter holts were never found further than 700m over land from freshwater sources.

The River Dodder/Grand Canal is the nearest freshwater source to potential Holt 3. The freshwater source is approximately 900 m from the potential holt located under the Sea Safari's Tours Ltd shipping container offices. The River Tolka is the nearest freshwater source to potential Holts 1 and 2, with an approximate separation distance of 3 km. These sources of freshwater are not realistically connected to these potential holt locations over land, and therefore it is considered that due to the requirements of otter to wash salt from their fur before sleeping in holts, these potential holts are likely to act as short-term resting holts or couches only. They are not suitable for breeding or natal purposes.

The Dublin Otter Survey (Macklin *et al.* 2019) surveyed 15 rivers around Dublin and found the highest frequency of otter signs (per km) in the River Dodder, including six holts, the nearest holt being located approximately 3.4 km upstream from the proposed 3FM Project boundary. It is considered that it is highly likely that any otters frequenting the water within the proposed development area are based in holts located within freshwater rivers such as the Dodder and Tolka, and potentially further upstream in the Liffey, in a less saline environment.

Otters will rest under structures at sites in proximity to high levels of human activity. According to Chanin (2003), otters have been found to be flexible in their use of resting sites and do not necessarily avoid 'disturbance' in terms of noise or proximity to human activity. Typically, these resting sites are in places where the risk of direct physical disturbance is low (Chanin, 2003). The areas along the Dublin Port Estate coastal boundaries and berms are typically busy locations, likely with too much human/industrial activity for long-term otter holting. The waterside environment along most of the proposed 3FM Project development area on the lower Liffey is comprised of vertical wall, mainly constructed from stone or concrete. There were very limited crevices or cavities on these vertical structures which would be of suitable size to allow an otter to enter and use as a resting place, even as an above ground couch. All cavities were shallow and located below the highwater mark, and therefore would be inundated with water for periods of the day, and therefore not suitable for otter holting.

Despite the industrialised nature of the Dublin Port Estate and Poolbeg Peninsula and its associated prevalence of human/industrial activity, otters continue to frequent the area and are seemingly well adapted. However, some locations may be sufficiently removed from port activity (at times) and may provide

opportunistic above ground resting locations (couches). Stakeholder observations appear to demonstrate this. Resting places are in busy locations but safely enclosed and near the river. There are also examples of temporary materials and stored items that could provide temporary resting opportunities like those at 3FM Project Turning Circle.

Tidal activity relative to daylight disturbance appears to be a factor determining foraging activity. For example, otters have been seen to forage at low tide where the River Dodder meets the River Liffey (Plate 21 below). However, this activity is restricted to early morning or later evening when there is reduced human activity.

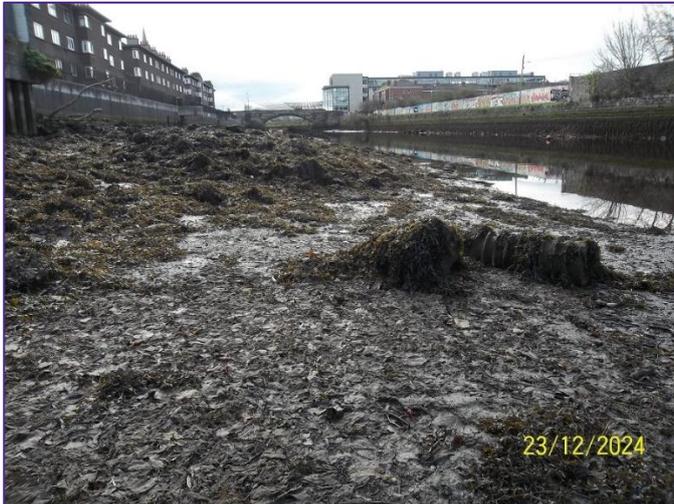


Plate 21 looking south up the River Dodder to the Ringsend Bridge.



Plate 22 stored and stacked heavy materials at the 3FM Project Turning Circle demonstrating the abundance of built and temporary features in which otters could shelter.

4.2 Badger

Given the limited availability of suitable foraging opportunities left in Irishtown and on the Poolbeg Peninsula, the expectation has been that the badger population was low and likely comprised of just one remaining badger clan. The clan's main sett had been at the Glass Bottle Site but this sett was destroyed under license and an artificial sett created on the edge of the Irishtown Nature Park. The relocated clan (comprising seven badgers) have however returned to the general area in which they were originally recorded and established new setts, these being S1 and S2 identified in this technical note.

RPS understand that infra-red camera monitoring has taken place to ascertain the status of S1 and S2 as part of construction phase ecological monitoring of the Glass Bottle site development. DHLGH (2024) informed

RPS that the translocated badgers at their artificial sett attracted the 'hostile' attention of a male/boar badger already present in Irishtown Nature Park area. It is possible that Sett 2 is a new main sett associated with the returning badger clan that have abandoned the artificial badger sett at Irishtown Nature Park (**Figures 3.0 and 3.2**). The hostile male/boar badger may belong to a second badger clan as considered by DCC's then Biodiversity Officer (Lorraine Bull).

In this up-to-date survey, RPS identified a main sett (S5a & S5b) approximately 45 m south of the artificial sett, that supports this theory that there are two badger clans in the Irishtown Poolbeg Peninsula – the Glass Bottle Site clan at S1, S2 and S3 and the Irishtown Nature Park clan at S5a and S5b.

S4 is likely an outlier sett of the original main sett at the Glass Bottle site.

RPS is continuing to liaise with DCC's Parks Department Biodiversity Officers to share and exchange findings. RPS also continues to liaise with the Glass Bottle site lead contractor and their ecological consultant, Altemar Ltd.

4.2.1 Locating Badger Evidence

Dense impenetrable thickets of bramble, buddleia, and less frequently blackthorn, can be found along and in proximity to the sett locations and areas where badgers were found to forage.

As the current survey was undertaken during winter months, the absence of lush vegetation allowed the surveyors to see more clearly.

With regard to S5, it is notable just how well concealed it is. The area is hugely popular with walkers, many passing near S5 without ever knowing a badger clan lives there.

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5 MITIGATION MEASURES

5.1 Otter Measures

5.1.1 Terrestrial Otter Search

Prior to the commencement of any construction works (including the moving and storage of materials), an Ecological Clerk of Works (ECoW) will undertake a detailed search for resting otters (most likely above ground resting) along all potentially suitable land along the waters edge, out to more than 30 m from proposed construction works. In the unlikely event that otters are encountered, all works in that vicinity will cease until it has moved on.

5.1.2 Otter Holt/Couch Closure

The potential otter resting place located under the Sea Safari Tours Ltd offices at Poolbeg will be searched thoroughly for the presence of otter in a sensitive manner and under the terms of a wildlife disturbance licence issued by the Minister of Housing, Local Government and Heritage. Prior to construction works commencing, trail cameras will be deployed to monitor the potential otter resting place under a wildlife licence. Once it has been confirmed that no otters are present, the structure will be made unsuitable for otter access and resting. This will ensure that there will be no otters present during demolition/construction works.

5.2 Badger Measures

Details of badger mitigation can be found in an outline Badger Conservation Plan at Appendix A.

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FIGURES

Figure 1.0 Site Location

Figure 2.0 Otter Survey Results

Figure 3.0 Badger Survey Results

Figure 3.1 Badger Setts S1-S4

Figure 3.2 Badger Sett S5

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Figure 1.0 Site Location



Figure 2.0 Otter Survey Results



Figure 3.0 Badger Survey Results



Figure 3.1 Badger Setts S1 – S4 at 1:500 scale

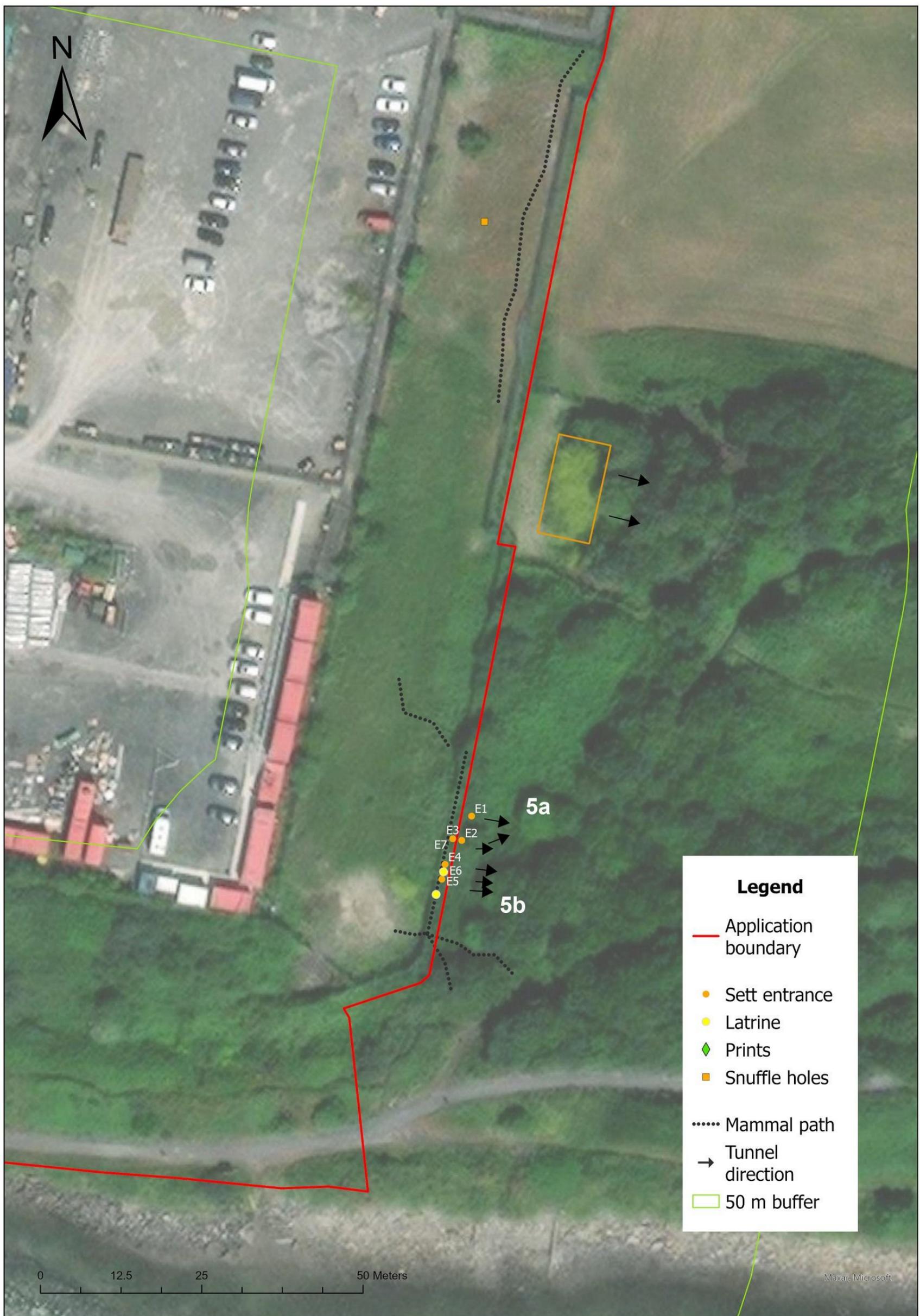


Figure 3.2 Badger Sett S5 at 1:500 scale

Appendix A Outline Badger Conservation Plan

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FURTHER ENVIRONMENTAL INFORMATION OUTLINE BADGER CONSERVATION PLAN

3FM Project, Dublin Port



794-NI-WAE-02239
3FM Project, Dublin Port
February 2025
A01

Due to the high level of persecution of badger and legal protection afforded to this species (badger is listed in the Fifth Schedule of the Wildlife Acts 1976 to 2023 and protected under Section 23 of the Wildlife Acts), information pertaining to the location of setts is treated as confidential.

For this reason, figures illustrating and identifying the location of badger setts which are presented in this survey technical note are not intended to be made available to the general public on either the An Bord Pleanála website (<https://www.pleanala.ie/en-ie/case/320250>) or the dedicated 3FM Project website (<https://dublinport3fm.ie/>) where environmental information in relation to the proposed 3FM Project is otherwise available.

This survey information is intended to be provided to the competent authority, An Bord Pleanála, and the Development Applications Unit (DAU) of the Department of Housing, Local Government and Heritage under separate cover with the sole purpose of preventing the location of badger setts being easily identified by the general public.

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Prepared by:

RPS

Prepared for:

Dublin Port Company

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1 INTRODUCTION

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

The plan has been informed by badger surveys carried out between June 2022 and February 2023, and again in April and 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 up-to-date surveys carried out between December 2024 and January 2025 at the request of the Department of Housing, Local Government and Heritage (DHLGH) as set out in the Ecological Survey Technical Note for Otter and Badger 2025.

The purpose of this outline conservation plan is to provide details on how badgers 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 to the measures 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 the proposed 3FM Project construction, it is envisaged that DPC shall procure up-to-date preconstruction surveys for badger and finalise the Badger 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 survey will aim to update the baseline environment for badgers and if necessary, the proposed mitigation and the methodology. The appointed contractor(s) will be required to prepare a number of 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 Restricted Circulation of this Plan

As noted at the front of this plan and as explained in the main body of text responding to the Department's queries, due to the high level of persecution of badger and legal protection afforded to this species (badger is listed in the Fifth Schedule of the Wildlife Acts 1976 to 2023 and protected under Section 23 of the Wildlife Acts), information pertaining to the location of setts is treated as confidential.

For this reason, figures illustrating and identifying the location of badger setts which are presented in this outline plan are not intended to be made available to the general public on either the An Bord Pleanála website (<https://www.pleanala.ie/en-ie/case/320250>) or the dedicated 3FM Project website (<https://dublinport3fm.ie/>) where environmental information in relation to the proposed 3FM Project is otherwise available.

This information is intended to be provided to the competent authority, An Bord Pleanála, and the Development Applications Unit (DAU) of the DHLGH under separate cover with the sole purpose of preventing the location of badger setts being easily identified by the general public. It is part of a confidential appendix to the main response document to be provided to the Board.

1.2 Legislation

Badgers and their setts are protected under the Wildlife Act 1976 (as amended). Under the Act it is illegal to intentionally kill or injure a badger or wilfully interfere with or destroy the breeding site or resting place of a badger.

1.3 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 and Badger 2025 Technical Note.

2 BASELINE ENVIRONMENT

2.1 Badger Setts

Badger surveys were carried out in order to establish the presence of badger setts and/or badger foraging areas within the site and within 50 m of the red line boundary. Surveys were undertaken between June 2022 and February 2023, and in April and May 2024 to inform the July 2024 EIAR submission.

Further surveys were undertaken in December 2024 and January 2025 in response to a Further Information request by the DHLGH.

Five badger setts were recorded: three inside the proposed 3FM Project boundary and two outside and within 30 m of the Proposed 3FM Project boundary:

- Sett 1 - <1 m inside the proposed 3FM Project boundary, by an existing steel fence separating the proposed 3FM Project application site from the Glass Bottle site. RPS understands badgers may be using an underground culvert structure at this location.
- Sett 2 - occurring within the Glass Bottle site, c. 22 m from the proposed 3FM Project application boundary.
- Setts 3 and 4 - both occurring within the proposed 3FM Project application boundary.
- Sett 5 - occurring on the proposed 3FM Project application boundary where it adjoins the Irishtown Nature Park.

There is increasing evidence to suggest not one, but two badger clans are present in the locality: one potentially centred on sett 2 at the Glass Bottle site, and the other at Sett 5 where the proposed 3FM Project red line boundary adjoins Irishtown Nature Park.

The Glass Bottle clan had been translocated to an artificial sett at Irishtown Nature Park and their old sett destroyed under licence in 2022.

However, a number of that clan have returned to the Glass Bottle site and established as many as three new setts, with the main activity centred on Sett 2 given its large, active fresh spoil heap.

Additional badger evidence includes snuffle holes and scrapes, prints, and latrines (refer to Figure 3.0 of the Ecological Survey for Otter and Badger 2025 Technical Note). This evidence was mostly attributed to Area O. Badgers were also seen to forage at the location of the proposed 3FM Project Turning Circle.

2.2 Proposed Mitigation Measures

[Hold: On completion of pre-construction surveys, Figures showing locations of numbered setts to be provided as set out in Tables 1 and 2 below]

As outlined above, five badger setts were identified within, or adjacent to the proposed 3FM Project boundary.

- Sett 1 will require permanent closure
- Sett 2 will require an Ecological Exclusion Zone (EEZ) to ensure its protection during the Construction Phase

-
- Sett 3 will require permanent closure
 - Sett 4 will require permanent closure
 - Sett 5 will require an Ecological Exclusion Zone (EEZ) to ensure its protection during the Construction Phase

These setts and their actions are summarised in Table 1.

In addition to the above, the following mitigation will be required to be implemented:

- Open excavations and / or trenches will either be covered to avoid access by wildlife, or a means of escape installed to facilitate egress at the end of each working day. All pipes will be capped overnight to prevent access by mammals.

2.2.1 Pre-Construction Surveys

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

If new setts are found, these will be referenced as S6, S7, S8 and so on.

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Table 1: Badger Setts Details Within and Adjacent to the Proposed 3FM Project Application Boundary

Sett Reference	Last surveyed	Approximate distance to Proposed Project	Status	Action at Construction Phase	Action Code
S1	Jan. 2025	0 m - using an existing culvert for protection	Reportedly used by badgers (1 entrance) - active	Permanent closure	PC
S2	Jan. 2025	22 m west of the application boundary	Potential main sett (1 entrance) - active	Protective exclusion zone (Monitor and Protect)	MP
S3	Jan. 2025	0 m – within the application boundary	Outlier sett (1 entrance) - active	Permanent closure	PC
S4	Jan. 2025	0 m – within the application boundary	Outlier sett (1 entrance) - abandoned	Permanent closure	PC
S5	Jan. 2025	>1 m from application boundary – 25 m from earthworks comprising tree planting.	Main (5a) and Annexe (5b) setts (7 entrances) - active	Protective exclusion zones (Monitor and Protect)	MP

Table 2: Badger Sett Codes and Actions at Construction Phase

Sett Reference	Construction Phase Reference Code	Action at Construction Phase
S1	PC-01	Permanent closure
S2	MP-01	Protective exclusion zone (Monitor and Protect)
S3	PC-02	Permanent closure
S4	PC-03	Permanent closure
S5 (5a & 5b)	MP-02	Protective exclusion zone (Monitor and Protect)

3 METHOD STATEMENT

The following sections set out details on the methodology and programme for the protection of badgers during the pre-Construction Phase, Construction Phase and post-Construction Phases of the Proposed 3FM 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.

3.1 Pre-Construction Works

The pre-Construction Phase is the stage before any works which can cause disturbance commence on-site. The following measures will be implemented during the pre-Construction Phase.

3.1.1 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), and any planning consent conditions including those relating to the protection of badgers.

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 3FM 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 badger conservation plan for issue to the planning authority prior to any works commencing;
- Implement and oversee the measures outlined in the badger conservation plan;
- Implement the pre-commencement toolbox talks with all personnel on-site to ensure that they understand the requirements of the badger conservation plan and the strict legal protection for badgers;
- Provide the watching brief necessary for monitoring of setts 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 badgers or their setts; 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 badger protection measures during the pre-Construction Phase and within four weeks after the completion of the Construction Phase.

3.1.2 Pre-Construction Survey

In order to ensure that there are no significant changes to the badger territories identified in the 2024 planning application, and the mitigation measures specified, a pre-construction badger survey will be undertaken prior to the commencement of any works on-site.

The survey will be completed by experienced and suitably qualified ecologists using the same methodology as used for the 2024 surveys (i.e., the National Roads Authority (NRA) Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA, 2009)) and any other relevant guidance at the time of surveying.

If required, trail cameras will also be used.

Any new setts will be referenced S6, S7 & S8 and so forth (if required).

Programme

Pre-construction surveys will take place during November to April and no more than 10 to 12 months in advance of construction.

The surveys will be supplemented by a further inspection of the area within the proposed 3FM Project boundary immediately prior to site clearance to ensure that no new setts were established in the intervening period and that setts previously identified continue to be used by badgers.

The additional survey information will be incorporated into this outline conservation plan in accordance with the Guidelines for the Treatment of Badgers Prior to the Construction of National Road Schemes (NRA, 2005).

3.1.3 Protection Using Exclusion Fencing and Monitoring

This method applies to setts classified under Action Code 'Monitor and Protect' (MP) in Table 1 and Table 2.

For setts classified under Action Code 'Monitor and Protect', prior to construction works commencing on site, a 30 m exclusion zone will be set up and defined by temporary fences around the setts requiring protection (see Table 1). The exclusion zones will prevent wheeled or tracked machinery intruding within 30 m of the setts while also creating a physical barrier during the works. This exclusion zone will be set up as an early works task under the construction contract, and before lands to be made available to the appointed contractor(s) are being fenced off along the route of the proposed 3FM Project. Wheeled or tracked machinery such as large vehicles carrying materials for the setup of the exclusion zones shall not park within 30 m of setts during construction of the exclusion zones. No vehicles, storage or stockpiling of materials will be allowed within the Ecological Exclusion Zone.

The 30 m exclusion zone (i.e., no works occurring within 30 m) around selected setts will be demarcated using permanent style protective fencing inserted into the ground that will incorporate badger gates or openings suitable for use by badgers to allow free movement of badgers and other mammals during construction works. These exclusion zones will be in place for the duration of the site works.

Signage will be placed intermittently on exclusion zones to demarcate that it is a badger exclusion zone and warning that entry for construction personnel, including the storage or placing of equipment or materials, is not permitted within the exclusion zone.

Any works required to occur within 30 m of these setts will be undertaken under the close monitoring of the on-site ECoW and camera traps will be set up to check for badger use throughout this period.

The specification of the temporary fence for the proposed construction corridor will allow unimpeded movement of badger at the bottom of the fence so that they can continue to move within their territorial boundaries.

For setts classified under Action Code 'MP', the appointed ECoW will monitor the works weekly and identify any remedial actions necessary to avoid harm to badgers and their setts during the Construction Phase.

3.1.3.1 Programme

Prior to construction works commencing onsite, all exclusion fencing around 'MP' setts will be in place. During construction, the ECoW will monitor the integrity of the fencing.

3.1.3.2 Monitoring

For the 'MP' setts, the ECoW will monitor the use of the setts and fencing that has been erected as applicable, during the pre-construction and construction phase of the proposed 3FM Project.



Wire mesh around the gate needs to be buried or securely pegged.



Examples of a one-way gate in place over one of several sett entrances at setts being evacuated.

Plate 1: Example images of badger gates installed at entrances (extracted from NRA (2005))

3.1.4 Temporary Closure

In accordance with Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA 2009), exclusion of badgers from disused or currently inactive setts, may be entertained during any season. Confirming that a sett is inactive during the breeding season (i.e. with no possibility of cubs below ground) will require a period of sett monitoring (e.g. five or more days of checking activity either by camera trap or with sticks or sand pads on the spoil heaps to identify footprints).

In the instance of disused setts or setts verified as inactive, and to prevent their reoccupation, the entrances may be lightly blocked with vegetation and a light application of soil (soft blocking). The purpose of soft blocking is to confirm that an apparently inactive sett is not occupied by badgers.

Where field signs or monitoring reveal any suggestion of current or recent badger activity at any of the sett entrances, the sett will require evacuation procedures to be applied.

3.1.4.1 Sett Evacuation

Inactive entrances may be soft-blocked, as described for inactive setts, but any active entrances shall have one-way gates installed (plus proofing around sides of gates as illustrated) to allow badgers to exit but not to return. The gates shall be tied open for three days prior to being set to 'closed' to allow one way traffic only to exclude badger. Sticks can be placed at arm's length within the gated tunnels to establish if badgers remain within the sett in addition to cameras deployed at the entrance(s).

Gates shall be left installed, with regular inspections, over a minimum period of 21 days (including period with gates tied open) before the sett is deemed inactive. Any form of activity will require the procedures to be repeated or additional measures to be taken.

There is the potential for gates to be interfered with by other mammals or members of the public, and therefore, regular exclusion monitoring visits are important and necessary.

Badgers will often attempt to re-enter setts after a period, and if gates are left in place for any long period, they may attempt to dig around them or even create new entrances and tunnels into the sett system.

Where an extensive sett is involved, an alternative method of evacuating badgers will be to erect electric fencing around the sett (ensuring all entrances are included) with one-way badger-gates installed within the electric fence at points where the fence crosses badger paths leading to and from the sett.

Fencing may not be practical in many situations due to the topography or the terrain and can be difficult to install effectively. The appointed ECoW shall determine the most effective way to establish an exclusion zone on a location-by-location basis.

The exclusion shall again take place over a minimum period of 21 days and this monitoring period will be contingent upon no badger activity being observed within the fenced area.

3.1.4.2 Programme

In accordance with NRA (2009), exclusion of badgers from disused or currently inactive setts, may be entertained during any season. Confirming that a sett is inactive during the breeding season (i.e. as described above, with no possibility of cubs below ground) will require a period of sett monitoring (e.g. five or more days of checking activity either by camera trap or with sticks or sand pads on the spoil heaps to identify footprints).

Works to temporarily exclude badgers from any currently active sett will only be carried out during the period of July to November (inclusive) in order to avoid the badger breeding season.

3.1.4.3 Monitoring

For all 'TC' setts, the ECoW will monitor the use of the setts, gates and fencing that has been erected as applicable, during the pre-Construction Phase and Construction Phase of the proposed 3FM Project.

If signs of re-occupation occur, the temporary closure procedure (and sett evacuation procedure, as required) will be repeated, and all works will not encroach within 30 m of the affected sett until it is deemed inactive by the ECoW.

3.1.5 Permanent Closure

In accordance with NRA guidance (NRA, 2005; NRA, 2009), exclusion of badgers from disused or currently inactive setts, may be entertained during any season. Confirming that a sett is inactive during the breeding season (i.e. as described above, with no possibility of cubs below ground) will require a period of sett monitoring (e.g. five or more days of checking activity either by camera trap or with sticks or sand pads on the spoil heaps to identify footprints).

In the instance of disused setts or setts verified as inactive, and to prevent their reoccupation, the entrances may be lightly blocked with vegetation and a light application of soil (soft-blocking). The purpose of soft blocking is to confirm that an apparently inactive sett is not occupied by badgers.

If all entrances remain undisturbed for approximately five days, the sett shall be destroyed immediately using a mechanical digger, under the supervision of the appointed ECoW.

Should there be any delay in sett destruction, the soft blocked entrances shall be hard-blocked, and the sett destroyed as soon as possible, again under the supervision of the appointed ECoW. Hard-blocking is best achieved using buried fencing materials and compacted soil with further fencing materials laid across and firmly fixed to blocked entrances and surrounds.

Where field signs or monitoring reveal any suggestion of current or recent badger activity at any of the sett entrances, the sett will require evacuation procedures to be applied.

3.1.5.1 Sett Evacuation

Inactive entrances may be soft-blocked, as described for inactive setts, but any active entrances shall have one-way gates installed (plus proofing around sides of gates as illustrated in Plate 1. to allow badgers to exit but not to return. The gates shall be tied open for three days prior to being set to 'closed' to allow one way traffic only to exclude badger. Sticks can be placed at arm's length within the gated tunnels to establish if badgers remain within the sett in addition to cameras deployed at the entrance(s).

Gates shall be left installed, with regular inspections, over a minimum period of 21 days (including the period with gates tied open) before the sett is deemed inactive. Any form of activity will require the procedures to be repeated or additional measures to be taken. There is the potential for gates to be interfered with by other mammals or members of the public, and therefore, regular exclusion monitoring visits are important and necessary. Sett destruction shall commence immediately following the 21-day exclusion period, provided that all badgers have been excluded.

Badgers will often attempt to re-enter setts after a period, and if gates are left in place for any long period, they may attempt to dig around them or even create new entrances and tunnels into the sett system.

Where an extensive sett is involved, an alternative method of evacuating badgers will be to erect electric fencing around the sett (ensuring all entrances are included) with one-way badger-gates installed within the electric fence at points where the fence crosses badger paths leading to and from the sett.

The exclusion shall again take place over a minimum period of 21 days and his monitoring period will be contingent upon no badger activity being observed within the fenced area.

Fencing may not be practical in many situations due to the topography or the terrain and can be difficult to install effectively. The appointed ECoW shall determine the most effective way to establish an exclusion zone on a location-by-location basis.

If no activity is observed, then the sett may be destroyed, under supervision by the licensed wildlife expert.

3.1.5.2 Programme

In accordance with NRA guidance (NRA, 2005; NRA, 2009), exclusion of badgers from disused or currently inactive setts may be entertained during any season. Confirming that a sett is inactive during the breeding season (i.e. as described above, with no possibility of cubs below ground) will require a period of sett monitoring (e.g. five or more days of checking activity either by camera trap or with sticks or sand pads on the spoil heaps to identify footprints).

Works to temporarily exclude badgers from any currently active sett will only be carried out during the period of July to November (inclusive) in order to avoid the badger breeding season.

3.1.5.3 Monitoring

For all 'PC' setts, the ECoW will monitor the area around destroyed setts and fencing that has been erected, as applicable, during the pre-Construction Phase and Construction Phase of the proposed 3FM Project.

If signs of fresh sett excavation and occupation occur, the temporary closure procedure (and sett evacuation procedure, as required) will be repeated before any further effort at sett destruction is undertaken, and all works will not encroach within 30 m of the affected sett until it is deemed inactive by the ECoW.

3.2 Construction Works

During the Construction Phase, any large excavations will either be covered (with plywood or similar) at the end of the working day, temporarily fenced off, or will have a temporary escape ramp installed overnight to prevent badgers from falling into them, becoming trapped and potentially harmed.

3.2.1 Monitoring

All works will be monitored as necessary by the appointed ECoW throughout the Construction Phase.

A watching brief by the appointed ECoW will be in place for **all setts** throughout the Construction Phase. If the setts become active or more entrances are found, then works within 30 m of the setts will be stopped and the appointed ECoW will engage with the appointed contractor(s) to discuss and agree the appropriate way forward.

In such instances, consultation will also take place with the planning authority and the National Parks and Wildlife Service (NPWS). This outline conservation plan will be updated to address any changes post-consent and following pre-Construction Phase surveys. The updated plan will be provided to the appointed contractor(s). The appointed ECoW will require updated method statements to address the changes.

3.3 Post-Construction Works

Setts closed for the duration of the Construction Phase (i.e. Action Code 'TC') will be re-opened at the earliest opportunity in consultation with the licensing authority.

3.3.1 Removal of Exclusion Fencing

Following the completion of construction, all temporary fencing delineating the exclusion zones will be removed to enable the badger population to freely access the land within the proposed 3FM Project boundary.

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REFERENCES

NRA (2005). Guidelines for the Treatment of Badgers Prior to the Construction of National Road Schemes

NRA (2009). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes

Directives and Legislation

Number 39 of 1976 – Wildlife Act, 1976 (as amended)

Number 25 of 2023 – Wildlife (Amendment) Act 2023

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