Tionscadal Soláthair Uisce
Water Supply Project

Application for Derogation Under Regulation 54 of the European Communities (Birds & Natural Habitats) Regulations 2011, as Amended - Pertaining to Otter

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Uisce Éireann
Irish Water

Jacobs

TOBIN

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Acronyms and Abbreviations

Acronym	Meaning
BPS	Booster Pumping Station
BPT	Break Pressure Tank
CIEEM	Chartered Institute of Ecology and Environmental Management
CEMP	Construction Environmental Management Plan
CWBPMP	Construction Waste and By-Product Management Plan
ECoW	Ecological Clerk of Works
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
FCV	Flow Control Valve
GDAWRZ	Greater Dublin Area Water Resource Zone
IFI	Inland Fisheries Ireland
ITM	Irish Transverse Mercator
MCA	Multi-Criteria Analysis
NBDC	National Biodiversity Data Centre
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
NRA	National Roads Authority
NWRP	National Water Resources Plan Framework Plan
RWI&PS	Raw Water Intake and Pumping Station
RWRM	Raw Water Rising Mains
RMRPs	Regional Water Resources Plans
SAC	Special Area of Conservation
SWMP	Surface Water Management Plan
TPR	Termination Point Reservoir
WRZ	Water Resource Zone
WTP	Water Treatment Plant
ZoI	Zone of Influence

1. Introduction

1. A derogation licence is requested in relation to the temporary disturbance of otter (*Lutra lutra*) and the temporary loss of suitable otter resting habitat during the construction of the proposed Water Supply Project Eastern and Midlands Region (hereafter referred to as 'the Proposed Project').

2. The Proposed Project is a water supply pipeline involving the abstraction and pumping of raw water from the Lower River Shannon at Parteen Basin; treatment of the water nearby at Birdhill, County Tipperary; and pumping of the treated water to a high point near Cloughjordan, County Tipperary and on through the Midlands to a termination point at Peamount, in County Dublin (within the administrative area of South Dublin County Council), where it would connect into the existing Greater Dublin Area Water Resource Zone (GDA WRZ) network.

3. The objectives of the Proposed Project, taking account of the Regional Water Resources Plan (RWRP) Eastern and Midlands (Irish Water 2022) (see Section 1.1), are to:

    - Provide a sustainable water supply from a New Shannon Source
    - Address critical supply issues in the Greater Dublin Area with provision for future supplies to multiple Water Resource Zones (WRZs) in the region
    - Increase resilience of supplies and Levels of Service (the reliability of the supply that Uisce Éireann customers can expect to receive)
    - Deliver a flexible, future-proofed solution that is responsive to change.

4. Otter are listed on Annex II and IV of the EU Habitats Directive (92/43/EEC). The directive has been transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011), as amended (the 'Habitats Regulations'). Annex IV of the Habitats Directive gives strict protection to individual otters and their breeding and resting places (holts and couches).

5. This document provides supporting information required for the application of a derogation licence under Regulation 54 of the Habitats Regulations, including desktop review and ecological survey results. The document assesses the three pre-condition tests set out in Regulation 54 (National Parks and Wildlife Service (NPWS) 2025a):

    - Test 1: the derogation is required for one or more of the specific reasons set down in Regulation 54(2) (a)-(e)
    - Test 2: there must be no satisfactory alternative
    - Test 3: the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range
    - The European Commission (2021) guidance advises that the principle of proportionality should be applied when determining if an application passes each Test. It states, '*As a general rule, the severity of any of the conditions or 'tests' will increase with the severity of the potential impact of a derogation on a species or population*'.

6. Three otter holts and two otter couches were recorded within the Proposed Project (i.e. within the Planning Application Boundary) in proximity to watercourse crossings and proposed trenchless or open trench works. Due to their proximity to the proposed works, a derogation licence is sought for potential disturbance or loss to these holts and couches (see Section 4.2 and Section 4.3 for more details). In addition, a derogation licence is sought for potential disturbance to seven active breeding holts, five inactive holts, and seven otter couches recorded outside of (i.e. outside the Planning Application Boundary) but within 150m of the Proposed Project (see Section 4.2 and Section 4.3 for more details).

7. This document has been prepared by suitably qualified and experienced TOBIN ecologists.

1.1 Need for the Proposed Project

8. Safe, secure, resilient, and sustainable drinking water supplies are essential to public health, social and economic growth. With climate change and population growth there are increasing pressures on existing supplies. There is already a deficit in supplies in the Greater Dublin Area and the wider Eastern and Midlands Region and this will only increase in the future.

9. The River Liffey currently provides approximately 85% of source water to the GDA WRZ and there is almost no spare capacity in the current supply. Being heavily dependent on one source for the majority of water supply in the GDA WRZ means that there is very limited resilience within the existing system.

10. In Spring 2021, Irish Water (now Uisce Éireann) published the National Water Resources Plan Framework Plan (NWRP). The NWRP sets out how Uisce Éireann will balance the supply and demand for drinking water over the short, medium and long term. The 25-year strategy aims to ensure the supply of safe, sustainable, secure and reliable drinking water in Ireland.

11. The NRWP consists of:

    - The NRWP Framework Plan (the 'Framework Plan') which set out the approach to identifying water supply needs and quantifying those needs up to the year 2044 which, following public consultation, was finalised and adopted in Spring 2021
    - Four Regional Water Resources Plans (RWRPs) to identify the optimal technical solutions (the 'Preferred Approaches') required to address the needs outlined in the Framework Plan.

12. The Framework Plan identifies how Uisce Éireann assesses needs across water supplies and the process Uisce Éireann will use to find solutions to address those needs. The Framework Plan identified, at a national level, that a new sustainable source of water is necessary to augment supplies in the Eastern and Midlands Region to address deficits in supply, increase the reliability of the current water supply system, and support future growth now and into the future.

13. The RWRP – Eastern and Midlands Region (the 'Eastern and Midlands Plan') is the RWRP relevant to the Proposed Project. The Eastern and Midlands Plan was adopted by Uisce Éireann in Autumn 2022 following public consultation, and applied the methodologies set out in the Framework Plan to identify the water supply needs of the Eastern and Midlands region and develop the preferred approaches to resolve them.

14. The Eastern and Midlands Plan identified that a New Shannon Source with transfers was the Preferred Approach to address the need of the GDA WRZ. Having identified the New Shannon Source as the Preferred Approach to meet the deficit in the GDA WRZ, the Eastern and Midlands Plan identified a 'Water Supply Area[1]' consisting of additional WRZs along the length of the pipeline and also adjacent to the GDA WRZ which had a deficit that could also be met from the New Shannon Source.

15. This establishes the need for the Proposed Project as it would deliver a New Shannon Source to provide the capacity to meet the deficit in the GDA WRZ and provide for potential future connections into 18 other WRZs in the Eastern and Midlands Region (once future projects are brought forward). This would allow those 18 WRZs to be consolidated into four new WRZs. It would also facilitate the potential future supply to 17 other WRZs adjacent to the GDA WRZ through the re-distribution of supply within the GDA WRZ and an expansion of the GDA WRZ by incorporating these WRZs into the GDA Regional WRZ (once future projects are brought forward). As a result, the Proposed Project aligns with, and is a significant step

[1] The Water Supply Area is an area defined by the infrastructure and transfer pipeline, where the proximity of treated water supplies from the Proposed Project offers opportunities for potential future consolidation of existing smaller and more vulnerable public water supply schemes, in a resilient, well-supported configuration. Potential future connecting infrastructure would be subject to separate consenting processes.

towards delivering, the Preferred Approach set out in the Eastern and Midlands Plan for a New Shannon Source with transfers.

16. The Proposed Project infrastructure would provide the capacity to meet the needs of a Water Supply Area consisting of 36[2] WRZs across the Eastern and Midlands Region. This aligns with the Eastern and Midlands Plan. It would do this by providing the capacity to supply up to 300Mld (megalitres per day) which would:

    - Immediately meet the identified need for water within the GDA WRZ to 2050 and beyond
    - Enable the future supply to 17 other WRZs by re-directing supplies within the GDA WRZ and expanding the GDA WRZ by incorporating these WRZs into the GDA Regional WRZ, when future projects are brought forward by Uisce Éireann
    - Enable the future supply to a further 18 WRZs across the Midlands from Potential Future Connection Points along the pipeline and facilitate the consolidation of those WRZs into four new WRZs, when future projects are brought forward by Uisce Éireann
    - Make provision for potential reductions in existing supply volumes due to sustainability requirements anticipated under the new abstraction licensing regime.

1.2 Statement of Authority

17. This derogation licence application was prepared by TOBIN Technical Director and Lead Ecologist Laura Kennedy (B.Sc., M.Sc.) who is a Senior Ecologist for the Proposed Project. Laura is a qualified and experienced environmental consultant with 17 years' post-graduate experience in environmental sciences and environmental consultancy in Canada and Ireland. Laura has prepared and delivered Planning and Environmental Consideration reports, Technical Data reports, Environmental Assessments, Permit Applications, and Environmental Effects Monitoring reports for renewable energy projects, pipeline projects, and mining projects in Canada and Ireland. Laura has a strong technical background as an aquatic ecologist and has extensive field experience in biological and chemical water quality assessment. She has also collected hydrology and meteorology data, conducted wildlife surveys (bird and nest surveys, amphibian surveys), and carried out fish habitat assessments which included electrofishing, minnow trapping and fish identification. Laura has also undertaken Screening Reports and Natura Impact Statements for solar farm and wind energy developments and has defended Appropriate Assessments at Oral Hearings for a waste development and a mining project.

18. The licence application was reviewed by TOBIN Principal Ecologist Aine Sands (B.Sc.). Áine has over ten years post-graduate experience in ecology and environmental consultancy and has predominantly been involved in large renewable energy projects such as wind farms, solar farms and hydrogen production plants. Within her role, Áine has carried out numerous Screenings for Appropriate Assessments, Natura Impact Statements and Ecological Impact Assessments for a variety of projects. Áine also has a strong understanding of National and European legislation associated with biodiversity and is cognisant of relevant rulings by the Court of Justice of the European Union (CJEU). Importantly, Áine has experience with undertaking ecological surveys for protected habitats and species and is able to collect robust data from these surveys.

[2] 37 WRZs were identified in the Eastern and Midlands Plan consisting of the GDA WRZ and 36 other WRZs. Subsequently Barndarrig WRZ and Redcross WRZ have been rationalised and combined and so the total is now 36 WRZs consisting of the GDA WRZ and 35 other WRZs.

2. Proposed Project Description

19. The Proposed Project would comprise an abstraction of raw water from the Lower River Shannon and various elements of water supply infrastructure, which would extend from Parteen Basin in County Tipperary, through the Midlands, to Peamount in County Dublin. The Proposed Project would:

    - Abstract water from Parteen Basin at the Raw Water Intake and Pumping Station (RWI&PS) which would be located on the Lower River Shannon downstream of Ballina/Killaloe in County Tipperary/County Clare
    - Pump the abstracted water from Parteen Basin 2km to a Water Treatment Plant (WTP) at Incha Beg, County Tipperary, via twin Raw Water Rising Mains (RWRMs)
    - Transfer the treated water by pumped and gravitational Treated Water Pipeline sections via a Break Pressure Tank (BPT) near Cloughjordan, County Tipperary, and a Booster Pumping Station (BPS) east of Birr, County Offaly
    - The flow would be controlled by a Flow Control Valve (FCV) located in the townland of Commons Upper in County Kildare, before travelling onwards to a Termination Point Reservoir (TPR) in County Dublin (within the administrative area of South Dublin County Council).

20. The six 'Infrastructure Sites' within the Proposed Project referred to hereafter are:

    - The RWI&PS, which would be located on a permanent site of approximately 4ha, on the eastern shore of Parteen Basin in the townland of Garrynatineel, County Tipperary
    - The WTP, which would be located on a permanent site of approximately 31ha at Incha Beg, County Tipperary, 2.6km north-east of the village of Birdhill, and 2km east of the proposed RWI&PS
    - The BPT, which would be located on a permanent site of approximately 7ha, in the townland of Knockanacree, County Tipperary
    - The BPS, which would be located on a permanent site of approximately 2.6ha in the townland of Coagh Upper, County Offaly
    - The FCV, which would be located on a permanent site of approximately 0.5ha in the townland of Commons Upper in County Kildare
    - The TPR, which would be located on a permanent site of approximately 8.3ha adjacent to an existing treated water reservoir at Peamount, County Dublin, and would have capacity for 75Ml of treated water supply.

21. There would also be uprated or new electrical connections to provide power supplies to the Infrastructure Sites. Any new electrical works would be delivered by Electricity Supply Board Networks.

22. The RWRMs and Treated Water Pipeline referred to hereafter comprise the following:

    - The RWRMs would be twin 1,500mm nominal external diameter underground transfer steel pipelines which would carry the raw water pumped from the RWI&PS for approximately 2km to the WTP
    - The Treated Water Pipeline from the WTP to the BPT refers to the single 1,600mm nominal diameter steel pipeline, approximately 37km long, which would deliver the treated water pumped from the WTP site to the BPT

- The Treated Water Pipeline from the BPT to the TPR refers to the single 1,600mm nominal diameter steel pipeline, approximately 133km long, which would deliver treated water from the BPT to the TPR[3].

23. The Construction Working Width, which would be temporarily required for the period of construction of the RWRMs and Treated Water Pipeline, would generally be 50m wide but would be locally wider near features such as crossings, access and egress points from the public road network and Pipe Storage Depots.

24. There would be a 20m Permanent Wayleave within the Proposed Project, normally positioned centred on the pipeline, where Uisce Éireann would retain rights of access for inspection, operation, maintenance and repair of the RWRMs, Treated Water Pipeline and associated infrastructure.

25. The Construction Phase would require additional temporary land-take for the following:

- Construction Compounds, which would be temporarily required to facilitate the works to construct the Proposed Project
- Pipe Storage Depots, which would be temporarily required to augment those Construction Compounds and would serve the installation of pipeline between the WTP and the TPR.

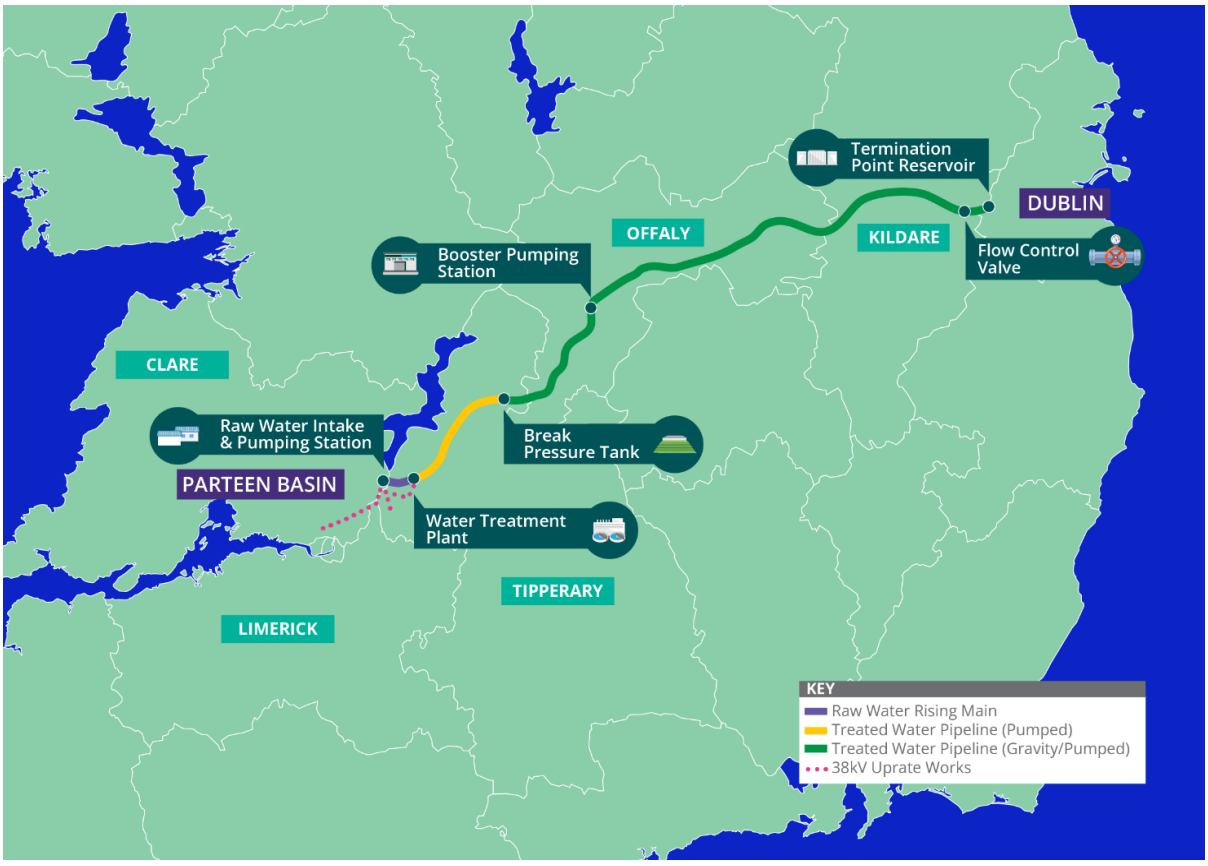


Image 2-1: Graphical Overview of the Proposed Project

[3] A combination of pumping and gravity would be used to transfer water through the pipeline. Water would be pumped from the RWI&PS to the WTP and from the WTP to the BPT which is the high point along the pipeline. From the BPT, the water would usually flow by gravity along the remaining 133km to the TPR. However, at times when the volume of water needed is higher than approximately 165Mld, the water would be pumped through the whole length of the pipeline. The BPS provides the capacity to do this additional pumping when it is required.

2.1 Pipe Installation – Watercourses

26. Watercourse crossings along the RWRMs and Treated Water Pipeline would be constructed using trenchless construction or open-cut methods, namely 'damming and fluming' or 'damming and pumping'.

2.1.1 Trenchless Construction

27. Trenchless construction involves passing beneath a feature rather than using a conventional open-cut method which can cause a greater environmental impact or disruption. Typically, trenchless crossings are proposed underneath major crossings, for example major canals or watercourses.

28. Trenchless crossings take longer to construct (typically six to eight weeks to construct) than open-cut methods and also require a wider Construction Working Width to facilitate the temporary works. In general, a minimum Construction Working Width increase from 50m to 80m, over a length of 80m, would be required. This additional required area is referred to as a 'box out'. Trenchless crossings can also have additional environmental effects, such as noise associated with the drilling and the method can also impact groundwater pathways and quality.

29. Tunnelling would be used at major crossings and is an excavation method that installs the pipe behind the tunnel face shield by pushing, or 'jacking', pipes from a drive shaft or jacking platform. In some locations the shafts and tunnel drive would be below the natural water level, so a system of water management (using a settlement pond and discharge to land drain) would be installed to provide a suitably safe and relatively dry working environment within the excavation. The shafts would be up to 8m in diameter and would have suitable fencing installed around them.

30. Once started, some aspects of the trenchless crossing techniques cannot be safely stopped. Therefore, task lighting would be provided at the drill locations to illuminate the area around the drive shaft during night-time construction works.

2.1.2 Open Trench (Damming and Fluming)

31. Damming and fluming methods used to cross a watercourse would involve channelling the existing water through a conduit (flume), which can comprise one or more pipes depending on the size of the flows in the watercourse. Typically, conduits would traverse the length of the works area with diameters suitably sized to accommodate existing flows.

32. The conduit is used to carry the watercourse over the excavated trench and a dam of sandbags and suitable clay material is constructed across the existing stream/riverbed to ensure all flow is diverted through the conduit. While the purpose of the flume is to create a dry bed for the open excavation, it may be necessary to employ a temporary pump sump to remove any additional water. Pumped discharge would be via a settlement tank to remove any solids from the water.

2.1.3 Open Trench (Damming and Pumping)

33. Damming and pumping methods used to cross a watercourse would involve constructing a dam (sandbags and suitable clay material) across the existing watercourse upstream of the proposed crossing point. A suitably sized pump sump(s) is then used to extract the water and convey it around the excavation to a point downstream of the crossing point.

2.2 Pipe Installation – Working in Peat

34. Approximately 53km of the pipeline crosses peat soils, with an additional 2km in alluvium or soft ground requiring similar treatment.

35. Four peat construction methods (Methods 1 to 4) are proposed, with the final selection to be made during detailed design depending on peat depth and site conditions.

36. Method 1 is proposed to be used where the peat is 0.5m –1m deep and it is not expected that there would be any deviation from this methodology. Method 1 would involve the excavation of the peat down to good ground below which could then support the pipe.

37. For sections of peat greater than a depth of 1m it is uncertain which method may be adopted. Therefore, in areas where Methods 2, 3, or 4 are proposed, the environmental assessment has considered that any of these methods could be adopted. The difference between Methods 2 to 4 is whether support would be required for the pipeline. For Method 2 it would not, because suitable ground below the peat would provide the support. In comparison, for Method 3 and Method 4 there would be the installation of stone pillars or concrete piles, respectively, at intervals along the length of the pipeline to provide sufficient support in the poor ground conditions. The environmental effects from Methods 2, 3, and 4 would be similar. However, Methods 3 and 4 would result in additional permanent infrastructure in the form of stone pillars (Method 3) or piled supports (Method 4) below the pipeline. Method 4 would require piling and as such, would generally have a greater environmental impact.

38. Due to the uncertainty regarding which 'Working in Peat' method may be employed in areas where peat depth exceeds 1m, the environmental assessment adopted a precautionary worst-case scenario approach. Accordingly, a wider 150m Zone of Influence (ZoI) was applied within areas where Methods 2, 3, or 4 may be required, to account for the potential disturbance effects associated with piling activities, should piling be necessary (see Section 4.2). The wider ZoI reflects the potential for construction-related noise and vibration effects to extend beyond the immediate working corridor during pipeline installation. The assessment therefore assumes the maximum foreseeable extent of piling-related disturbance in areas where piling methods could potentially be required.

3. Methodology

3.1 Desktop Review

39. As part of the assessment of the Proposed Project, a desktop review of available online databases from the NPWS and National Biodiversity Data Centre (NBDC) was carried out to establish the known distributions and potential presence of otter within proximity to the Proposed Project:

    - NBDC records for the following 10km grid squares surrounding the Proposed Project were reviewed: R56, R66, R67, R76, R77, R87, R88, R98, R99, S08, S09, N00, N10, N11, N21, N31, N41, N42, N52, N62, N72, N73, N83, N92, N93, O03 (NBDC 2025) (i.e. species distribution data recorded within 10km square grid references on a map)
    - NPWS data available online including the National Otter Survey which provided a preliminary assessment of the species' conservation status for Article 17 reporting under the Habitats Directive (Reid *et al.* 2013; NPWS 2025b)
    - A sensitive data request was also made to the NPWS (most recent data requested and received in 2025).

3.2 Field Survey

40. A number of otter surveys (Table 3-1) were undertaken as part of aquatic and multidisciplinary walkover surveys or dedicated species surveys for the Proposed Project and previous iterations of the project[4] between 2016 and 2025. These included surveys to detect the presence, or likely presence, of otter within the study area (i.e. within the Proposed Project boundary and 150m upstream and downstream of watercourses crossed by the Proposed Project). Otter surveys were conducted in line with Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes guidelines (National Roads Authority (NRA) 2009). Field signs of otter activity including spraints (otter droppings), footprints, food remains, slides, pathways/trails, holts, couches and natal dens were recorded.

41. Surveys undertaken for previous iterations of the project remain valid for the Proposed Project as the alignment remains the same in many instances.

[4] 'Previous iterations of the project' refer to the In-flight Water Supply Project developed prior to the adoption of the National Water Resources Plan and Eastern and Midlands Plan. The 'Proposed Project' refers to the project that planning permission is being sought and that has taken account of the conclusions of the National Water Resources Plan and Eastern and Midlands Plan. The Proposed Project aligns with the Preferred Approach for the Eastern and Midlands Region, a New Shannon Source with transfers as set out in the Eastern and Midlands Plan. Reference is made to previous iterations of the project where design development and survey results are relevant to the Proposed Project.

Table 3-1: Otter Surveys and Survey Dates

Survey	Survey Type	Survey Date(s)
Protected Mammal Surveys	Otter Surveys ('Preferred Pipeline Corridor' and Infrastructure Sites proposed at the time)	June to July 2016
	Otter Surveys at Parteen Basin	November 2016 June 2017 October 2021 September 2022 October 2024
	Otter Surveys at watercourse crossings	September to November 2016 July to August 2017 August 2018 September to October 2019 August to September 2020 July 2022 August and September 2024
	Otter Surveys	July and September 2017 (re-routes) June to August 2018 August 2019 (re-attempt 'no access' lands) July to October 2020 July to October 2021 (re-routes) June to October 2022 June 2023 (re-attempt 'no access' lands) June to October 2024 May and June 2025 (re-attempt 'no access' lands and re-routes)

4. Results

4.1 Desktop Review

42. The NBDC online database was reviewed, most recently in 2025, for otter records within the 10km grid squares encompassing the Proposed Project. From this, a total of 328 otter records were identified.

43. Additionally, an updated data request was made to NPWS in 2025, which provided records of otter within the following 10km grid squares encompassing the Proposed Project: R56, R66, R67, R76, R77, R87, R88, R98, R99, N00, N10, N11, N21, N31, N41, N42, N52, N62, N72, N92, S09 and O03.

4.2 Field Survey

44. As noted, otter surveys were carried out within the study area of the Proposed Project and previous iterations of the project between 2016 and 2025. The following signs of otter presence were recorded during these field surveys:

- A total of three otter holts were identified within the Proposed Project (i.e. within the Planning Application Boundary), of which two were confirmed active and one was inactive (Table 4-1)
- A total of 12 otter holts were recorded within 150m of the Proposed Project (Table 4-2), of which seven were confirmed active and five were inactive. Based on NRA (2008) 'Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes', noise impacts from 'piling or blasting'[5] could impact breeding otter holts within 150m of a noise source. The ZoI was considered to extend up to 150m from the Proposed Project in areas where trenchless crossings and/or piling is proposed (see Section 2.1.1 and Section 2.2)
- A total of 112 records of otter field signs (otter activity, holts and potential holts) were recorded within the study area. Of these 112 records, two otter couches were recorded within the Proposed Project (Table 4-1) and an additional seven couches were recorded within 150m of the Proposed Project (Table 4-2).

Table 4-1: Location of Known Otter Holts and Couches Within the Proposed Project

Location (Chainage; Figure No.)	Otter Record (Status)	Otter Activity	Construction Activity	First Year of Record	Closest EPA Water Body	Irish Transverse Mercator (ITM) Coordinate	Derogation Licence Sought (Yes/No)
Kilmastulla, County Tipperary (TW – 700; Figure 1)	Holt (Inactive)	Slides and prints present	Pipe laying (open trench crossing)	2016	Incha Beg	573104 X, 670359 Y	Yes
Boveen, County Offaly (TWA – 12900; Figure 3)	Holt (Active)	Run, slide and spraint present	Pipe laying (trenchless crossing and 'Working in Peat')	2017	Little Brosna	606642 X, 694999 Y	Yes
Ballinvally, County Offaly (TWB – 24800; Figure 9)	Holt (Active)	Sighting of juvenile otters recorded in 2022 and 2024	Pipe laying (trenchless crossing and 'Working in Peat')	2018	Clodiagh (Tullamore)	634194 X, 716635 Y	Yes
Clonbeg, County Offaly (TWA – 17500; Figure 4)	Couch (status non-applicable)	Spraint and slide present	Pipe laying (open trench crossing)	2019	Rock (Birr)	608831 X, 698693 Y	Yes

[5] References to 'blasting' throughout this report are included solely to reflect terminology used in relevant guidance literature. No blasting works are proposed or envisaged as part of the Proposed Project.

Location (Chainage; Figure No.)	Otter Record (Status)	Otter Activity	Construction Activity	First Year of Record	Closest EPA Water Body	Irish Transverse Mercator (ITM) Coordinate	Derogation Licence Sought (Yes/No)
Castledillon Upper, County Kildare (TWE – 11300; Figure 13)	Couch (status non-applicable)	Otter tracks present	Pipe laying	2018	Liffey	695658 X, 730171 Y	Yes

45. With regard to 'Guidelines for the Treatment of Otter Prior to the Construction of National Road Schemes' (NRA 2008), three of the 12 holts located outside of the Proposed Project were classified as either (Table 4-2):

    - **Active**, non-breeding holt located less than 20m from works involving tracked vehicles
    - **Active** breeding holts located less than 150m from works involving 'piling or blasting'.

46. The remaining nine holts (also located outside of the Proposed Project) do not meet the above criteria and were therefore characterised, with regards to NRA (2008), as follows (Table 4-2):

    - Four **Active** holts located outside the Proposed Project and **greater than 20m** from works involving tracked vehicles (**no 'piling or blasting' proposed within 150m of holt**)
        - Impact: Not impacted (or negligible impact)
        - Located beyond 20m, therefore avoiding direct disturbance from general construction activities (tracked vehicles)
        - No 'piling or blasting' within 150m; therefore, significant noise and vibration effects are avoided
        - Although the holts are active, they lie outside all key disturbance thresholds
        - Notwithstanding the above, a precautionary approach has been adopted regarding the potential breeding status of these holts at the time of construction, and a derogation licence is sought (see Section 4.3 of this report).
    - One **Inactive** holt located outside the Proposed Project and **less than 20m** from works involving tracked vehicles (**no 'piling or blasting' proposed within 150m of holt)**
        - Impact: Not impacted (or negligible impact)
        - Inactive status reduces sensitivity
        - Located less than 20m from works involving tracked vehicles, therefore within the potential disturbance ZoI
        - No 'piling or blasting' within 150m; therefore, significant noise and vibration effects are avoided
        - Notwithstanding the above, a precautionary approach has been adopted regarding the activity status of this holt at the time of construction, and a derogation licence is sought (see Section 4.3 of this report).
    - One **Inactive** holt located outside the Proposed Project and **greater than 20m** from works involving tracked vehicles but **less than 150m** from works involving 'piling or blasting'
        - Impact: Not impacted (or negligible impact)
        - Inactive status reduces sensitivity
        - Located beyond 20m, therefore avoiding direct disturbance from general construction activities (tracked vehicles)
        - Within 150m of 'piling or blasting', therefore within the potential disturbance ZoI

  - Notwithstanding the above, a precautionary approach has been adopted regarding the potential breeding status of this holt at the time of construction, and a derogation licence is sought (see Section 4.3 of this report).

- Three **Inactive** holts located outside the Proposed Project and **greater than 20m** from works involving tracked vehicles (**no 'piling or blasting' proposed within 150m of holt**)
  - Impact: Not impacted
  - Inactive status reduces sensitivity
  - Located beyond 20m, therefore avoiding direct disturbance from general construction activities (tracked vehicles)
  - No 'piling or blasting' within 150m; therefore, significant noise and vibration effects are avoided
  - Notwithstanding the above, a precautionary approach has been adopted regarding the potential breeding status of these holts at the time of construction, and a derogation licence is sought (see Section 4.3 of this report).

Table 4-2: Location of Known Otter Holts and Couches Within 150m of the Proposed Project

Location (Chainage; Figure No.)	Otter Record (Status)	Distance from Proposed Project (m)	Construction Activity	First Year of Record	Closest EPA Water Body	Irish Transverse Mercator (ITM) Coordinate	Derogation Licence Sought (Yes/No)
Kilmastulla, County Tipperary (TW – 900; Figure 1)	Holt (Active)	25	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt.	2018	Knockadromin	573277 X, 670366 Y	Yes
Kilmastulla, County Tipperary (TW – 1400; Figure 1)	Holt (Inactive)	18	Outside Proposed Project. Less than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt. Noted to be a potential holt only and inactive, therefore doesn't meet the 'active, but non-breeding' criteria in terms of 20m buffer distance from tracked vehicles.	2016	Knockadromin	573672 X, 670668 Y	Yes
Breaghmore, County Offaly (TWA – 25800; Figure 5)	Holt (Active)	74	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing and 'Working in Peat').	2019	Breaghmore	614123 X, 704053 Y	Yes
Cloghanmore, County Offaly (TWA – 27600; Figure 6)	Holt (Active)	112	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing and 'Working in Peat').	2019	Camcor	614726 X, 705683 Y	Yes
Derries, County Offaly (TWB – 12600; Figure 7)	Holt (Active)	1	Outside Proposed Project. Less than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing).	2018	Silver (Kilcormac)	623509 X, 713509 Y	Yes
Gortacur, County Offaly (TWB – 15100; Figure 8)	Holt (Inactive)	90	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt.	2018	House Derries	625062 X, 714993 Y	Yes
Gortacur, County Offaly (TWB – 15150; Figure 8)	Holt (Inactive)	70	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt.	2016	House Derries	625101 X, 715053 Y	Yes
Ballynakill, County Offaly (TWC – 18900; Figure 10)	Holt (Inactive)	135	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt.	2019	Daingean	652332 X, 727686 Y	Yes
Ballynakill, County Offaly (TWC – 22800; Figure 11)	Holt (Active)	145	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt.	2019	Leitrim_14	655815 X, 728085 Y	Yes
Newtownmoneenluggagh, County Kildare (TWD – 29100; Figure 12)	Holt (Inactive)	84	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' ('Working in Peat'). Noted to be a potential holt only and inactive, therefore doesn't meet the 'active breeding holts' criteria in terms of the 150m buffer distance from 'piling or blasting'.	2020	Blackwater (Longwood)	682013 X, 734562 Y	Yes

Location (Chainage; Figure No.)	Otter Record (Status)	Distance from Proposed Project (m)	Construction Activity	First Year of Record	Closest EPA Water Body	Irish Transverse Mercator (ITM) Coordinate	Derogation Licence Sought (Yes/No)
Castledillon Upper, County Kildare (TWE – 10000; Figure 13)	Holt (Active)	147	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt.	2016	Liffey	694437 X, 730350 Y	Yes
Castledillon Upper, County Kildare (TWE – 10000; Figure 13)	Holt (Active)	149	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of holt.	2018	Liffey	694411 X, 730347 Y	Yes
Kilmastulla, County Tipperary (TW – 2300; Figure 1)	Couch (status non-applicable)	93	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of couch.	2016	Kilmastulla	574542 X, 670654 Y	Yes
Ballyhisky, County Tipperary (TW – 10500; Figure 2)	Couch (status non-applicable)	19	Outside Proposed Project. Less than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing).	2019	Cloghleigh	580940 X, 675027 Y	Yes
Breaghmore, County Offaly (TWA – 26000; Figure 5)	Couch (status non-applicable)	13	Outside Proposed Project. Less than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing and 'Working in Peat').	2019	Breaghmore	614155 X, 704263 Y	Yes
Breaghmore, County Offaly (TWA – 26000; Figure 5)	Couch (status non-applicable)	6	Outside Proposed Project. Less than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing and 'Working in Peat').	2019	Breaghmore	614155 X, 704254 Y	Yes
Cloghanmore, County Offaly (TWA – 27600; Figure 6)	Couch (status non-applicable)	108	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing and 'Working in Peat').	2019	Camcor	614727 X, 705684 Y	Yes
Ardrass Upper, County Kildare (TWE – 9800; Figure 13)	Couch (status non-applicable)	3	Outside Proposed Project. Less than 20m away from works involving tracked vehicles. Less than 150m away from 'piling or blasting' (trenchless crossing).	2020	Liffey	694231 X, 730661 Y	Yes
Ardrass Upper, County Kildare (TWE – 10400; Figure 13)	Couch (status non-applicable)	139	Outside Proposed Project. Greater than 20m away from works involving tracked vehicles. No 'piling or blasting' within 150m of couch.	2016	Liffey	694876 X, 730663 Y	Yes

* References to 'blasting' throughout this report are included solely to reflect terminology used in relevant guidance literature. No blasting works are proposed or envisaged as part of the Proposed Project.

4.3 Summary of Holts and Couches for which a Derogation Licence is Sought

47. As previously stated, a derogation licence is being sought in respect of the temporary disturbance of three otter holts and disturbance or loss of two otter couches recorded within the boundary of the Proposed Project. The locations of the otter holts and couches recorded within the Proposed Project, for which a derogation licence is being sought, are listed in Table 4-1 and shown on Figures 1 to 13, included in Annex A. The presence of the otter holts/resting sites was most recently verified during multidisciplinary surveys undertaken in 2024. There is no requirement to destroy the holts, as they are located within habitats that will be retained as part of the Proposed Project. However, one of the two otter couches (at TWA – 17500) will be temporarily lost during the Construction Phase due to habitat removal, although suitable habitat will be reinstated post-construction. Accordingly, the primary impact being considered herein is in relation to temporary disturbance to otter and temporary loss of suitable otter resting habitat associated with construction works.

48. Regarding the otter holts and couches recorded outside of the Proposed Project boundary, a precautionary approach has been adopted in relation to the demonstrated effectiveness of the proposed mitigation measures in addressing potential indirect effects. On this basis, a derogation licence is being sought for potential disturbance to all seven couches, seven active breeding holts, and five inactive holts located within 150m of the Proposed Project. Although the inactive holts do not meet the criteria for an ‘active, non-breeding’ holt within a 20m buffer (NRA 2008) of the Proposed Project, they have been included on a precautionary basis, as they may provide supporting habitat for nearby active holts and/or their activity status may change over time). The locations of the otter holts and couches recorded outside of the Proposed Project, for which a derogation licence is being sought, are listed in Table 4-2 and shown on Figures 1 to 13, in Annex A.

5. Examination of Impacts and Assessment of Alternatives

5.1 Potential Impacts

49. In the absence of protective mitigation, potential impacts as a result of the Proposed Project include:
    - Habitat loss/fragmentation
    - Disturbance/displacement
    - Water quality impacts
    - Mortality.

50. At the Incha Beg River, upstream of the recorded otter holt (at TW – 700), there would be a temporary loss of habitat (approximately 150m of riparian and aquatic) and habitat fragmentation associated with open trench works to facilitate the Proposed Project watercourse crossing. In contrast, trenchless construction methodologies would be employed at the Clodiagh (Tullamore) and Little Brosna rivers (where the remaining two otter holts were recorded within the Proposed Project at TWB – 24800 and TWA – 12900 respectively), and therefore no habitat loss/fragmentation of riparian and aquatic habitat would occur at these locations. Although the three otter holts recorded within the Proposed Project footprint would not be destroyed, as they are located in habitats that would be retained, there remains potential for disturbance arising from construction activities undertaken in proximity to these features.

51. One of the two recorded otter couches within the Proposed Project footprint, at TWA – 17500 on the Rock (Birr) River, would be temporarily lost during the Construction Phase due to vegetation and habitat removal required to facilitate the proposed open trench works (note, the second couch within the Proposed Project at TWE – 11300 is located in an area of retained habitat). This couch is considered to represent a temporary resting site rather than a breeding holt, and suitable riparian habitat would be reinstated following completion of construction activities, allowing for the re-establishment of otter resting opportunities within the area. Accordingly, the primary impacts being considered herein relate to temporary otter disturbance and temporary loss of suitable otter resting habitat associated with construction works, rather than the permanent loss of otter resting habitat.

52. In addition to the otter holts and couches located within the Proposed Project footprint, seven active otter holts and seven couches have been recorded within 150m of the proposed construction works but outside the Proposed Project boundary. Five inactive holts have also been recorded within 150m of the Proposed Project, as described in Section 4.3. While these features would not be directly affected by habitat loss, there is potential for indirect disturbance effects to arise during the Construction Phase. Such disturbance may arise from increased human activity, tracked vehicle movements, the operation of heavy plant and machinery, and/or piling activities associated with trenchless construction and 'Working in Peat' methods. Given the sensitivity of otter to sustained disturbance in proximity to resting and breeding sites, there is potential for temporary displacement from, or reduced use of, these holts and couches during periods of peak construction activity, particularly where works occur adjacent to watercourses or during night-time or extended working periods. Accordingly, the primary impacts being considered herein for couches and holts outside the footprint of the Proposed Project relate to temporary disturbance associated with construction works, rather than the temporary or permanent loss of otter breeding or resting habitat.

53. While the majority of construction activities would take place during normal daylight working hours, trenchless construction may be required to operate on a 24-hour basis, increasing the potential for disturbance given the crepuscular nature of otter. Temporary disturbance or displacement effects may arise from noise and vibration associated with construction activities, including the use of tracked vehicles, heavy machinery, and piling operations in proximity to otter breeding and resting sites. Such activities may temporarily alter otter commuting, foraging, and resting behaviour within affected territories.

54. In the absence of mitigation, there is also a potential for a reduction in water quality at watercourse crossings due to the potential release of suspended solids or introduction of pollutants. This could adversely affect aquatic biota and indirectly reduce the availability of food biomass for otter. Consequently, the suitability of nearby foraging and commuting habitat may be temporarily reduced during the Construction Phase.

55. Direct mortality during the Construction Phase is considered unlikely due to the high mobility of otter and their ability to avoid active construction areas. Nevertheless, in the absence of appropriate mitigation measures, a low risk of injury or mortality remains associated with vehicle movements, excavation works, or inadvertent encounters with otter occupying resting places in close proximity to active works areas.

5.2 Proposed Mitigation and Monitoring Measures

56. To ensure the protection of otter and to avoid or minimise potential impacts to this species, an array of mitigation and monitoring measures have been proposed.

5.2.1 Ecological Clerk of Works

57. An Ecological Clerk of Works (ECoW) or team of ECoWs will be appointed by Uisce Éireann or its agents (and not by the appointed Contractor, although the Contractor may retain its own ecologists) to oversee works of a sensitive ecological nature, particularly where sensitive habitats and species (including otter) may be affected and where works occur within watercourses connected to European sites. The ECoW will be suitably qualified, experienced, and a member of a relevant professional body such as the Chartered Institute of Ecology and Environmental Management (CIEEM) or equivalent.

58. The ECoW will be responsible for overseeing the implementation of all ecological mitigation measures set out in the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS), and Register of Environmental Actions and Commitments (which is part of the Construction Environmental Management Plan submitted with the Planning Application), and will act as liaison between Uisce Éireann and the Planning Authority in relation to ecological planning condition compliance.

59. The ECoW duties will include:

- Pre-construction ecological surveys to confirm the presence of protected species
- Monitoring of habitats and species during construction works
- Ensuring implementation of mitigation measures on site
- Providing advice on appropriate responses to site-specific ecological issues (e.g. identification of previously unrecorded breeding sites during construction works).

5.2.2 Pre-Construction Surveys

60. Due to the mobile nature of this species, confirmatory pre-construction surveys will be carried out prior to the commencement of any Construction Phase works in order to identify any changes in otter activity or holt/couch locations. Pre-construction surveys will be undertaken within and up to 150m of the Proposed Project no more than 10 to 12 months in advance of construction, as per the NRA guidelines (NRA 2008), including in relation to the otter holts and couches for which this derogation licence for temporary disturbance/loss is being sought from the NPWS. The surveys will determine whether any new active otter holts or couches have been established or whether any previously inactive holts have become active. These surveys will be supplemented by a further inspection of the Proposed Project, immediately prior to site clearance, to ensure that no new holts have been created in the intervening period and to check if any of the previously identified holts are in active use by breeding females or have otter cubs present.

61. Given the mobile nature of otter and the scale of the Proposed Project, the requirement for a derogation licence will be kept under ongoing review by the ECoW. Where surveys identify changes in otter activity or holt status, updated otter derogation licence application(s) will be submitted to the NPWS, as required, and the mitigation measures outlined herein will be implemented.

5.2.3 Mitigation Measures for Temporary Habitat Loss and Disturbance

62. Measures set out herein will be implemented at works adjacent to or near known otter holts and couches to ensure that there will be no mortality of otter during the Construction Phase of the Proposed Project, and to reduce the potential for direct and indirect disturbance effects on otter breeding and resting sites.

63. Direct effects relate to holts or couches located within the footprint of the Proposed Project, where construction activities may result in habitat loss, disturbance, exclusion or removal. Indirect effects relate to holts or couches located outside the Proposed Project footprint but within the potential ZoI of construction activities, including vibration, noise, lighting disturbance and increased human activity associated with watercourse crossings, vehicle movements, operation of heavy machinery and 'Working in Peat' piling activities.

64. In relation to indirect effects, no wheeled or tracked vehicles (of any kind) will be used within 20m of active, but non-breeding, otter holts (NRA 2008). The prohibited working area associated with otter holts will be fenced and appropriate signage erected. In addition, where otter holts or couches are identified within 150m of trenchless crossings (see Section 2.1.1) or Method 2, 3 or 4 'Working in Peat' areas (see Section 2.2), construction activities will be planned and managed to minimise disturbance from piling works. This will include implementation of clearly defined exclusion zones, restriction of unnecessary vehicle movements, use of screening where practicable to reduce visual and acoustic disturbance, directional task lighting, and careful programming of works to avoid prolonged disturbance adjacent to identified breeding/resting sites.

65. As noted, trenchless construction will be carried out at the Clodiagh (Tullamore) and Little Brosna rivers where otter holts have been recorded within the Proposed Project. Trenchless construction will also be undertaken at the Breaghmore, Camcor, Silver (Kilcormac), Cloghleigh, Blackwater (Longwood), and Liffey rivers where otter holts and/or couches have been recorded outside the footprint of the Proposed Project, but within 150m. No above ground disturbance will take place between the riverbanks, and riparian habitats will be retained. Screening will be erected using standard construction hoarding to reduce visual and acoustic disturbance to otter at the boundary of the trenchless construction areas. As the construction methodology employed (i.e. trenchless construction) may require night-time working, all task lighting will be directional, hooded, and directed away from the identified holts and couches to minimise disturbance.

66. The otter holt at Incha Beg River is located on the edge of the Construction Working Width and adjacent to the proposed open trench crossing. Screening will be erected at the boundary of the Construction Working Width to minimise disturbance to otter during construction activities.

67. In accordance with NRA (2008) guidelines, no works will be undertaken within 150m of any holts at which breeding females or cubs are present. Breeding may take place at any season; therefore, activity at a holt will be determined on a case-by-case basis by a suitably qualified ECoW.

68. No known otter holts need to be removed or destroyed to facilitate construction of the Proposed Project. In the event that pre-construction surveys confirm that otter holts or couches occur within areas required for temporary or permanent works, any necessary measures will be implemented under the supervision of a suitably qualified ECoW and, where required, under a separate derogation licence from the NPWS, independent of this application.

69. For active holts requiring closure, where pre-construction surveys determine this is required, otters will be evacuated from the holts prior to any exclusion measures being implemented. Otters with cubs, however, will not be evacuated until the otters have naturally vacated the holt. In the case of non-breeding active holts, general disturbance measures (e.g. vegetation clearance) and chemical deterrents will initially be used to encourage otters to vacate the holts. Once the otters have left the holt, the entrance will then be soft blocked. In some cases, the installation of one-way gates on holt entrances may be required, followed by a monitoring period of 21 days to confirm that otters have permanently vacated the holt prior to removal. All such exclusion and closure measures will be undertaken, where required, under a separate derogation licence from the NPWS, independent of this application.

70. There are no seasonal restrictions with regard to the exclusion of otters from disused or currently inactive holts within the land take of the Proposed Project. Confirming that a holt is inactive will require a period of monitoring (five or more days of checking activity at the holt either with sticks or with sand pads to identify footprints). Where holts have been verified as inactive, and to prevent reoccupation, the entrances will be soft blocked. If the entrances remain undisturbed for five days, the holt will then be destroyed immediately using a mechanical digger under the supervision of the holder of an NPWS Otter Derogation Licence. Any such actions requiring licensing will proceed under a separate derogation licence, and not under this application.

71. In accordance with NRA (2008) guidelines, where pre-construction surveys confirm that destruction of an active breeding holt is required, and no suitable alternative natural holts are present, the construction of an artificial holt may be recommended to mitigate for the loss. Artificial holt(s) will be constructed prior to exclusion of an active holt and will be established in close proximity to the existing holt within suitable riparian habitat. The construction and location of any artificial holt will be agreed in advance under licence with the NPWS. A suitably qualified ECoW will oversee the process from design through to installation. A period of monitoring will be undertaken to determine use of the artificial holt by otters, with the duration and frequency of monitoring agreed on a site-specific basis.

72. Where temporary disturbance or removal of habitats containing recorded otter couches is unavoidable, such habitats will be reinstated on a like-for-like basis following completion of construction works. Reinstatement will include restoration of vegetation structure, riparian cover and habitat features suitable for otter resting and sheltering behaviour, using appropriate local native species, where practicable.

73. During the Operational Phase of the Proposed Project, mammal-resistant or mammal-proof fencing will be installed and maintained to guide otters to passage facilities and to prevent animals entering the Infrastructure Sites (i.e. RWI&PS, WTP, BPT, BPS, FCV and TPR).

5.2.4 Mitigation Measures for Pollution

74. To prevent the degradation of water quality, a Surface Water Management Plan (SWMP) has been prepared and submitted with the Planning Application (EIAR Appendix A5.1, Annex A). The SWMP includes protective mitigation measures for working near water and the watercourse crossings (including those where otter holts and couches have been recorded). The measures outlined in the SWMP will ensure the protection of aquatic habitats and will prevent siltation, erosion, surface water runoff and accidental pollution events, which have the potential to negatively impact water quality within the ZoI of the Proposed Project during the Construction Phase.

75. Accidental spillages and releases could lead to a serious pollution incident. To reduce the likelihood of occurrence and the magnitude of impact should such an incident occur, the following measures will be implemented (in line with the SWMP):

    - A detailed method statement including pollution prevention measures will be prepared prior to commencement of works. All subcontractors and staff will be made aware of its contents and their responsibilities

- Pollution control measures will be included in all method statements, and all staff will be made aware of their contents and their responsibilities
- Staff will be trained in the implementation of the Incident Response Plan and the use of any spill control equipment as necessary. A training log will be maintained and updated regularly
- In the event of an accidental spill, procedures and contingency plans will be in place at each work site to address cleaning up small spillages as well as dealing with an emergency incident
- In the unlikely event of a hydrocarbon spillage, contaminated spill clean-up material will be properly disposed of to an authorised waste contractor
- Spill kits will be provided at high risk and/or sensitive sites
- Safe handling and legal disposal of contaminated materials and wastes resulting from an incident will be clearly defined
- A reporting procedure will be in place for recording pollution incidents for review and future actions for prevention, mitigation and training prior to commencement of construction.

76. Continuous monitoring of water quality will take place at the outlets from attenuation areas, any settlement lagoons, surface water attenuation ponds or bioswales across the Proposed Project. If hydrocarbons are observed or other water quality parameters are considered to be exceeded, discharges will be suspended until the quality of the water is of a standard acceptable for discharge.

77. Daily visual inspections of the surface drainage and sediment control measures and the watercourses will be undertaken by the appointed Contractor in line with Safety, Health and Welfare at Work (Construction) Regulations 2013.

78. These inspections will be recorded. In the event that water pollution may have occurred, works will cease, sampling will immediately be undertaken, and an investigation of the potential cause will be undertaken by the appointed Contractor. Indicators include:
    - Change in water colour
    - Change in water transparency
    - Increases in the level of silt in the water
    - Oily sheen to water surface
    - Floating detritus, or scums and foams.

79. Where the works are identified as the source causing the exceedance, the following will apply:
    - Works capable of generating sediment and all discharges will be stopped immediately
    - The appointed Contractor will be required to take immediate action to implement measures to ensure that such discharges do not re-occur.

80. This monitoring will alert the appointed Contractor to any likely significant adverse effects that construction activities could have on water quality such that appropriate remedial action can be taken as quickly as possible. This will also allow the appointed Contractor to demonstrate the success of the mitigation measures employed in maintaining any sediment release within the ‘trigger’ value established (as defined in the SWMP).

5.2.5 Mitigation Measures for Working in or Near Watercourses

81. Buffer strips of natural uncleared vegetation will be preserved between construction activity and all rivers, streams and water bodies being crossed by trenchless excavation. The launch and reception shafts for trenchless crossings will be situated outside of the riparian zone; therefore, buffer strips of natural uncleared vegetation will be preserved between construction activity and all rivers, streams and water bodies being crossed. This buffer will ensure there is no potential for construction materials to accidentally fall into a water body. The locations for drill rig and the launch and reception shafts will be chosen or engineered as such that the fall is away from the water body, thereby facilitating installation of pollution containment and control facilities, in accordance with Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (Inland Fisheries Ireland (IFI) 2016). Where feasible, a buffer zone width will be maintained for larger river channels (>10m) of 35m to 60m and for smaller channels (<10m) of 20m or greater where possible, as per the recommendation in Planning for Watercourses in the Urban Environment (IFI 2020), or as otherwise agreed with IFI during the Construction Phase. The same buffers will apply to water bodies paralleled by the proposed pipeline.

82. Mitigation for working in or near watercourses includes (in line with the SWMP):

- The actual footprint of the construction activity for river crossings will be minimised to less than the 50m wide Construction Working Width, where possible (within the confines of the Construction Working Width)
- Crossings will be constructed as close to perpendicular to the axis of the water body channel as engineering and routing conditions permit
- Water body buffers (extra work area setbacks, refuelling restrictions, etc.) will be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete
- The natural path of water flow of rivers or streams will not be permanently diverted or blocked
- There will be no temporary or permanent dewatering of rivers or streams downstream of construction sites
- Works within and adjacent to a water body will be conducted during forecast low flow periods where possible
- Works within and adjacent to watercourses will be suspended during periods of heavy rainfall (i.e. greater than 10mm/hour or greater than 25mm in a 24-hour period)
- Measures will be taken prior to the onset of winter to prepare construction sites for erosive processes associated with the heavy rainfall to minimise impact on rivers and streams
- In-stream works will not be carried out in water bodies frequented by salmon or trout (food source for otter) during the Annual Close Season, or as otherwise agreed with IFI. The duration of the season varies regionally within the period from the beginning of October to the end of February. The timing of works will be considered on a site-specific basis and in agreement with the IFI, because some rivers have late spawning salmonids
- All construction machinery operating in-stream will be mechanically sound to avoid leaks of oils, hydraulic fluid, etc. Machinery will be cleaned and checked prior to commencement of in-stream works
- A sediment mat/silt trap or similar will be located immediately downstream of the works within and adjacent to the minor water body. These will be inspected daily, maintained and cleaned regularly during the course of site works. Diversion of water to and from a temporary diversion channel will only take place during the period March to September or as agreed with the IFI
- Small check dams will be constructed in the cut-off water body to trap any sediment, and a sediment trap will be provided immediately downstream of the diversion to the existing water body
- Where in-stream bed material is to be removed, coarse clasts, if present, will be stockpiled at least 10m away from the water body for replacement following channel reinstatement.

83. Measures below set out how stockpiles will be managed generally (which will avoid or reduce impacts on water quality):

    - Clearing and topsoil-stripping of each phase of works will be delayed until shortly before construction begins to minimise the duration of stockpiled material
    - Where an excavation contains a combination of acceptable and non-acceptable material for re-use the excavation will be conducted so that the acceptable material is excavated and stockpiled separately without contamination by the unacceptable material
    - Temporary stockpiles will be located away from drains and watercourses and at a minimum distance of 10m from a non-sensitive watercourse or 50m from a sensitive watercourse
    - The topsoil, and upper level of subsoil, will be stripped and stockpiled in identified locations
    - For watercourse crossings, stockpiles will not be located anywhere within the crossing working area
    - No stockpiles will be located within a European or national site or within a floodplain area
    - Management of stockpiles to prevent siltation of watercourse systems through runoff during rainstorms will be required with the final measures to be determined by the appointed Contractor. These will include the following measures or equivalent measures:
        - Allowing the establishment of vegetation on the exposed soil
        - Providing silt fences/barriers at the toe of the stockpile to mitigate runoff during rain events
        - Surrounding stockpiles with cut-off ditches to contain runoff
        - Directing any runoff to the site drainage system or filter drains along the Construction Working Width and to the settlement pond (or other) treatment systems
        - Providing bunds or another form of diversion to keep runoff from entering the stockpile area.

5.2.5.1 Trenchless Crossings

84. The layout of the trenchless crossing areas are designed to avoid impacting on riverbanks and contamination of the river with either dewatering fluid, silty water runoff or bentonite slurry. In particular, the reception and launch pits for the trenchless excavation will be located as per the requirements of the detailed design to be completed by the appointed Contractor, but will be contained within the Proposed Project and will be chosen or engineered such that the fall is away from the water body and beyond the riparian habitat. Soil stockpiles and fuel storage tanks will be a minimum of 10m from the river (CIRIA 2006). As outlined in Section 5.2.1, these measures will be monitored by an ECoW to ensure their effectiveness.

85. The drilling waste from the trenchless installations will be the responsibility of the appointed Contractor. During trenchless construction, the bentonite slurry is reused within the system. The spoil is filtered and separated from the water and bentonite slurry, with the slurry then being recirculated and reused within the system. Liquid sludge from this process is placed under a soil separator and dewatered with a centrifuge or a filter press. The spoil and residual slurry from the drilling will be disposed of off-site to a licensed/permitted waste facility through an appropriately licensed waste contractor in accordance with the Construction Waste and By-Product Management Plan (CWBPMP) and the Construction Environmental Management Plan (CEMP) to be prepared by the appointed Contractor (in line with the CWBPMP and CEMP submitted with the Planning Application – EIAR Appendix A5.1).

86. All tanks for storage of slurry will be bunded to ensure that any leakages are contained and are not allowed to enter the groundwater and/or nearby surface waters. All bentonite usage will be monitored through materials balance calculations, pressure monitoring in the lines and above ground visual assessment of the works to ensure that, should breakout occur, the volume is minimised. Should leakages or breakouts occur, construction work will cease, and the incident responded to immediately with containment, repairs and clean-up of any slurry which has spilled.

87. The primary means of mitigation is through the use of appropriate drilling mud formulation and management for the conditions. For shallow sections, especially where these are unavoidable at the beginning and end of the bore, the emphasis is on appropriate drilling practices for the overburden. Steel casings can also be installed along the alignment from the surface. For breakouts at depth, the emphasis on environmental mitigation is focused upon containment, control and cleanup. Beyond improving the drilling mud formulation and/or drilling processes, which is often sufficient, the leakage path can be sealed with a special lost-circulation material. These materials are introduced as slugs into the drill pipe and pumped onto the bore to clog the pathway. Containment measures include the installation of interception devices (e.g. silt fence, sediment curtains, collection sumps). In the event of a bentonite break-out, the site will be monitored for chemical and macro-invertebrate communities to ensure no residual impacts. This may include both benthic and water quality measurements. The drilling fluid/bentonite will be non-toxic and naturally biodegradable (i.e. Clear bore Drilling Fluid or similar will be used).

5.2.5.2 Open Trench Crossings

88. In-stream working will be carried out in accordance with the IFI Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (IFI 2016) or as otherwise agreed with IFI during the Construction Phase.

89. The watercourse banks, channel profile and bed material will be reinstated following construction using natural materials and to a condition at least as good as prior to construction. Post-construction monitoring of these areas will be undertaken to ensure establishment, with remedial works undertaken where required.

90. The natural path and flow of rivers or streams will not be permanently diverted or blocked and there will be no temporary or permanent dewatering of rivers or streams downstream of construction sites. Natural flow rates will be maintained in the channel at all times. Design and choice of temporary crossing structures will provide for passage of fish and macroinvertebrates, protect important fish habitats, and prevent erosion and sedimentation. Prior to construction, the appointed Contractor(s) will discuss the specific requirements for any discharges with the relevant authorities.

91. For over-pumping and fluming, potential issues relating to a build-up of silt, or silty dewatering fluids will be addressed through the use of settlement tanks at each crossing. Sediment mats/silt traps or similar will also be placed immediately downstream of the in-river trenching location and adjacent to the watercourse prior to construction to minimise any potential silt loss and to prevent sediment entering a watercourse further downstream.

5.3 Monitoring the Impact of the Derogation Licence

92. The ECoW will ensure the correct implementation of the derogation licence, including conducting pre-construction surveys, monitoring and supervising the provision of the derogation licence at each location, and implementing all mitigation measures as outlined in Section 5.2 and the Planning Application.

93. The ECoW will submit up-to-date derogation licencing reports to the NPWS on the findings of pre-construction surveys, the results of monitoring, and the implementation of the proposed mitigation measures, including any corrective measures applied.

5.4 Assessment of Alternatives

94. The Eastern and Midlands Plan applied the methodologies set out in the Framework Plan to identify the water supply needs of the Eastern and Midlands region and develop the preferred approaches to resolve them. The key outcome of the Framework Plan and the Eastern and Midlands Plan of relevance to the Proposed Project is that it determined that a New Shannon Source with transfers, comprising an abstraction from Parteen Basin and a transfer of treated water to a termination point reservoir in Dublin, was the Preferred Approach to address the supply demand balance deficit for direct supply to the GDA WRZ.

95. As explained in Section 1.1, the Proposed Project aligns with, and is a significant step towards delivering, the Preferred Approach set out in the Eastern and Midlands Plan for a New Shannon Source with transfers.

96. Therefore, the consideration of reasonable alternatives in respect of the Proposed Project, as addressed in Section 5.4.1, did not re-consider strategic alternatives that had been considered by the NWRP and was carried out within the defined Proposed Project objectives. Therefore, the reasonable alternatives in respect of the Proposed Project which have been considered include, for example, alternatives in terms of project design, technology, location, size and scale.

5.4.1 Proposed Project Alternatives

97. The three otter holts and two otter couches identified within the Proposed Project, together with the seven active breeding holts, seven otter couches, and five inactive holts recorded outside but within 150m of the Proposed Project, may be subject to potential temporary loss and/or disturbance impacts associated with the construction of the Treated Water Pipeline. Accordingly, this section considers reasonable alternatives for the pipeline alignment.

98. The alignment of the pipeline has been progressively refined throughout the development of the Proposed Project and previous iterations of the project.

99. From the outset the methodology was based on constraint mapping, a process that relied on consideration of predetermined ‘constraints’ that directly influenced the Pipeline Corridor. Constraints were mapped through both desktop assessment and field surveys. Environmental constraints included, for example, environmental or geological designations or protected habitats, settlements, material assets such as quarries, archaeological features, residential properties, zoned land, protected structures, protected views and floodplains.

100. This methodology enabled the production of a series of Preliminary Route Corridor options. From these a Least Constrained Pipeline Corridor was developed. The Preliminary Route Corridor options were developed to broadly meet many environmental and technical objectives, which included ground conditions, obstructions, accessibility, idealistic elevation and landowner impact. Multi-criteria analysis (MCA) techniques were applied to each of these Preliminary Route Corridor options by technical and environmental specialists to select the Least Constrained Pipeline Corridor.

101. The Least Constrained Pipeline Corridor was further refined to identify an Indicative 50m Pipeline Corridor, within which it would be feasible to construct the pipeline taking account of known environmental and technical constraints at the time. This refinement considered updates to constraint mapping, feedback from non-statutory consultation, surveys, geotechnical investigation, design development and extensive landowner engagement.

102. The final selection of the preferred 50m Pipeline Corridor was an iterative one and involved extensive consultation with landowners directly and indirectly affected, including re-route requests from affected landowners. All adjustments to the Pipeline Corridor were subject to a robust evaluation using MCA techniques. In addition, the process of decision-making made by the design team took account of the potential impact on neighbouring land holdings, i.e. adjacent lands could not be unduly disadvantaged by reaching agreement elsewhere. The decision-making process for this step comprised three evaluation categories:

    - Technical
    - Environmental
    - Landowner issues.

103. Technical considerations assessed the design and constructability of proposed changes, and included:

    - Adequate working area to construct the pipeline
    - Proximity to buildings and infrastructure
    - Impact of any correction to the pipeline length, and the number of fittings required, which may have affected its hydraulic operation
    - The 'shape' of the landholding, consideration of severance of agricultural land, and relative alignment of the pipeline
    - Topography (which exerts a strong influence on the design of any pipeline project), as it will determine the horizontal/vertical alignment, the flow characteristics through the transported medium, and whether the pipeline is gravity fed or needs a pumping station(s). The topography was utilised to optimise the pipeline design to minimise the diameter of the pipeline and pumping costs, limit the impact on the environment and mitigate energy consumption
    - Watercourse crossings which introduce greater complexity in construction.

104. The environmental evaluation of proposed changes included:

    - Ecology – impact on flora and fauna, particularly with respect to Annex I and Annex II of the Habitats Directive
    - Traffic – the maintenance of access to property and safe sight lines
    - Cultural heritage – proximity to architectural, cultural and archaeological heritage assets
    - Impact on watercourses
    - Watercourse crossing alignments (optimal design would dictate that the pipeline crossing would be perpendicular to the watercourse)
    - Community, people, land uses including agriculture and economic enterprises.

105. With respect to the landowner category, the following factors were considered:

    - Whether agreement was required from neighbouring landowner(s) to facilitate a proposed realignment of the pipeline
    - The level of additional impact on neighbouring landowner(s) whose land already fell within curtilage of the Pipeline Corridor
    - Whether suggested changes may affect landowners whose land was not previously directly impacted by the proposals.

106. The routing decision was subsequently refined in consultation with affected landowners and with regard to the technical parameters of the pipeline such as its ancillary infrastructure (for example, Line Valves), and crossing points (watercourses, roads, existing utility assets). The final preferred Pipeline Corridor was developed through:
    - Considering feedback from public consultation on the Preferred 200m Pipeline Corridor
    - Consultation with private and public landowners
    - Consideration of re-route requests from landowners
    - Assessing information from the environmental surveys
    - Finalisation of the hydraulic design.

107. As a result of the iterative refinement to the pipeline alignment, the Treated Water Pipeline route which is contained within the Planning Application was determined. Uisce Éireann chose a route for the pipeline that avoids environmentally sensitive areas, as far as reasonably practicable, to minimise environmental impacts, while considering technical and cost factors. There are therefore no reasonable alternative options that would have a lower impact.

108. Although the Treated Water Pipeline affects the otter holts and couches subject to this derogation application, in relation to the three holts within the Proposed Project Boundary, trenchless crossing techniques have been chosen as the construction method for the Clodiagh (Tullamore) and Little Brosna watercourse crossings (and for the Incha Beg crossing, the holt would not be directly impacted by the crossing, as it is on the edge on the Construction Working Width, therefore a trenchless crossing in this location would not reduce impacts). This has resulted in limiting the effects to temporary disturbance impacts only, avoiding the need to close the holts.

109. In addition, a range of mitigation measures will be implemented during construction to reduce indirect disturbance effects on otters and associated habitats, including controls on noise, vibration, lighting, and construction activity in sensitive areas. All temporarily disturbed habitats will be reinstated on a like-for-like basis following construction, with riparian vegetation and habitat connectivity restored to pre-construction condition insofar as practicable.

6. Conditions for Derogation Licence

110. The three otter holts and two otter couches identified within the Proposed Project, together with the seven active breeding holts, seven otter couches, and five inactive holts recorded outside but within 150m of the Proposed Project, may be subject to potential temporary loss and/or disturbance impacts associated with the construction of the Treated Water Pipeline. Given the proposed construction methodologies, mitigation measures, and assessment of alternatives, no additional measures are considered feasible in terms of further reducing the impact of the Proposed Project on otter.

111. In order for the Proposed Project to go ahead, a derogation licence must be sought. Article 16 of the Habitats Directive sets out three conditions, all of which must be met before a derogation from the requirements of Article 12 or Article 13 of the Directive can be granted. These conditions are also set out in Regulation 54 of the Habitats Regulations. The conditions are:

- A reason(s) listed in Regulation 54(2)(a)-(e) applies
- No satisfactory alternatives exist
- Derogation would not be detrimental to the maintenance of a population(s) at a favourable conservation status.

112. The Proposed Project has been assessed under these three conditions.

6.1 Test 1 – Reason(s) for Seeking Derogation

113. Regulation 54(2)(a) to (e) states that a derogation licence may be granted for any of the following reasons:

(a) In the interests of protecting wild flora and fauna and conserving natural habitats

(b) To prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property

(c) In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment

(d) For the purpose of research and education, of re-populating and re-introducing these species and for the breeding operations necessary for these purposes, including artificial propagation of plants

(e) To allow, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain specimens of the species to the extent specified therein, which are referred to in the First Schedule.

114. The Proposed Project falls under reason (c) '*In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment*'.

115. The reasoning for reason (c) is set out in Section 1.1. Once completed, the Proposed Project infrastructure would provide the capacity to meet the needs of 36 WRZs across the Eastern and Midlands Region. This aligns with the Eastern and Midlands Plan. It would do this by securing a new source of drinking water from the River Shannon at Parteen Basin. This would provide the capacity to supply up to 300Mld to the GDA WRZ and the Proposed Project's wider Water Supply Area. Overall, this volume of water would:

- Immediately meet the identified need for water within the GDA WRZ to 2050 and beyond
- Enable the future supply to 17 other WRZs by re-directing supplies within the GDA WRZ and expanding the GDA WRZ by incorporating these WRZs into the GDA Regional WRZ, when future projects are brought forward by Uisce Éireann

- Enable the future supply to a further 18 WRZs across the Midlands from Potential Future Connection Points along the pipeline and facilitate the consolidation of those WRZs into four new WRZs, when future projects are brought forward by Uisce Éireann
- Make provision for potential reductions in existing supply volumes due to sustainability requirements anticipated under the new abstraction licensing regime.

6.2 Test 2 – There is No Satisfactory Alternative

116. For a derogation licence to be granted, there must be no satisfactory alternatives. As described in Section 5.4, alternative options were considered as part of the design development of the Proposed Project. However, no reasonable options would have a lower impact. Therefore, the proposed measure is the only viable option to ensure the success of the Proposed Project.

6.3 Test 3 – Favourable Conservation Status

117. This test assesses whether the derogation licence would be detrimental to the maintenance of the populations of otter at a favourable conservation status in their natural range (Regulation 54(2)). Annex IV species (i.e. otter in this instance) must be maintained at favourable conservation status or restored to favourable status if this is not the case at present.

118. There will be no direct impacts to the otter holts and couches recorded outside the footprint of the Proposed Project, and these breeding and resting places will remain available for continued use by otter throughout the Construction and Operational Phases. Habitats within the temporary works areas that provide suitability for otter couches will be reinstated on a like-for-like basis following completion of construction works, thereby ensuring the continued availability of suitable resting and sheltering habitat for the species in the long term.

119. The otter holts recorded within the footprint of the Proposed Project at the Clodiagh (Tullamore) and the Little Brosna rivers have the potential to be associated with the downstream hydrologically connected (approximate hydrological distance of ca. 22km and ca. 21km respectively) River Shannon Callows Special Area of Conservation (SAC) (Site Code: 000216). The conservation objective for otter for this SAC is to maintain the favourable conservation status, with the attributes and targets outlined in Table 6-1.

Table 6-1: Conservation Objectives for Otter of the River Shannon Callows SAC

Attribute	Measure	Target	Potential for Effect
Distribution	Percentage positive survey sites	No significant decline	Potential for temporary effect during the Construction Phase, but not significant.
Extent of terrestrial habitat	Hectares	No significant decline. Area mapped and calculated as 282.1ha	Potential for temporary effect during the Construction Phase, but not significant.
Extent of freshwater (river) habitat	Kilometres	No significant decline. Length mapped and calculated as 146.7km	Potential for temporary effect during the Construction Phase, but not significant.
Couching sites and holts	Number	No significant decline	No potential for effect on the number of couching sites and holts; the holts outlined within this report would not be destroyed.
Fish biomass available	Kilograms	No significant decline	No potential for effect.
Barriers to connectivity	Number	No significant decline	No potential for effect.

120. The otter holt recorded within the footprint of the Proposed Project at the Incha Beg River has the potential to be associated with the downstream hydrologically connected (approximate hydrological distance of ca. 774m) Lower River Shannon SAC (Site Code: 002165). The conservation objective for otter for this SAC is to restore the favourable conservation status, with the attributes and targets outlined in Table 6-2.

Table 6-2: Conservation Objectives for Otter of the Lower River Shannon SAC

Attribute	Measure	Target	Potential for Effect
Distribution	Percentage positive survey sites	No significant decline	Potential for temporary effect during the Construction Phase, but not significant.
Extent of terrestrial habitat	Hectares	No significant decline. Area mapped and calculated as 596.8ha above high water mark (HWM); 958.9ha along riverbanks/around ponds	Potential for temporary effect during the Construction Phase, but not significant.
Extent of marine habitat	Hectares	No significant decline. Area mapped and calculated as 4,461.6ha	No potential for effect on the extent of marine habitat.
Extent of freshwater (river) habitat	Kilometres	No significant decline. Length mapped and calculated as 500.1km	Potential for temporary effect during the Construction Phase, but not significant.
Extent of freshwater (lake/lagoon) habitat	Hectares	No significant decline. Area mapped and calculated as 125.6ha	No potential for effect on the extent of lake/lagoon habitat.
Couching sites and holts	Number	No significant decline	No potential for effect on the number of couching sites and holts; the holts outlined within this report would not be destroyed.
Fish biomass available	Kilograms	No significant decline	No potential for effect.
Barriers to connectivity	Number	No significant decline	No potential for effect.

121. The mitigation measures detailed in Section 5.2 and in the Planning Application have been designed to satisfy this test. With the implementation of these measures, impacts on otter would be minimised, and the residual effects requiring a derogation licence would be limited to temporary disturbance and temporary loss of suitable resting habitat. Once construction is complete, no adverse impacts on otter are envisaged. Any temporary displacement of otters from areas affected by the Proposed Project is expected to be short-term, and otters are anticipated to continue to utilise the Incha Beg River, Clodiagh (Tullamore) River and Little Brosna River following construction, given the continued availability of high-quality habitat for the species.

122. As evident in Table 6-1 and Table 6-2, the Proposed Project and the granting of a derogation licence would not result in any impacts to the attributes and measures outlined for the abovementioned SACs. There is the potential for temporary but not significant effects during the Construction Phase in relation to ‘otter distribution’, ‘extent of freshwater (river) habitat’ and ‘extent of terrestrial habitat’. No otter holts would be destroyed as a result of the Proposed Project, and the derogation licence is for temporary disturbance and temporary loss of suitable otter resting habitats.

123. Furthermore, the short-term trend for otter is increasing in Ireland (NPWS 2019). An increase in population between the 2004/05 national survey and the 2010/11 national survey was demonstrated in Reid *et al.* (2013). Otter is widespread in Ireland, occupying lotic and lentic freshwater systems from headwaters to estuaries, with otter noted as having an adaptable nature and habitat availability/quality not considered to be a limiting factor to their range (NPWS 2019).

124. As such, with the proposed mitigation measures as outlined in Section 5.2 and the Planning Application in place, the temporary nature of the disturbance, and that otter holts would not be destroyed in this instance, it is determined that there would be no detrimental effect to the maintenance of the populations of otter at a favourable conservation status in their natural range. Furthermore, habitats temporarily disturbed during the Construction Phase that provide suitability for otter commuting, foraging and couching will be reinstated on a like-for-like basis following completion of the works, ensuring the continued availability of suitable habitat for the species within the Proposed Project area in the long term.

7. Conclusion

125. This report provides supporting documentation for the application of a derogation licence to permit the temporary disturbance of otter and the temporary loss of suitable otter resting habitat associated with the Proposed Project. Surveys identified three otter holts and two couches within the Proposed Project, and a further seven active breeding holts, seven couches, and five inactive holts outside but within 150m of the Proposed Project. The application is sought '*in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment'.* It is concluded that no satisfactory alternatives are available and that the Proposed Project would not adversely affect the maintenance of the otter population at favourable conservation status within its natural range.

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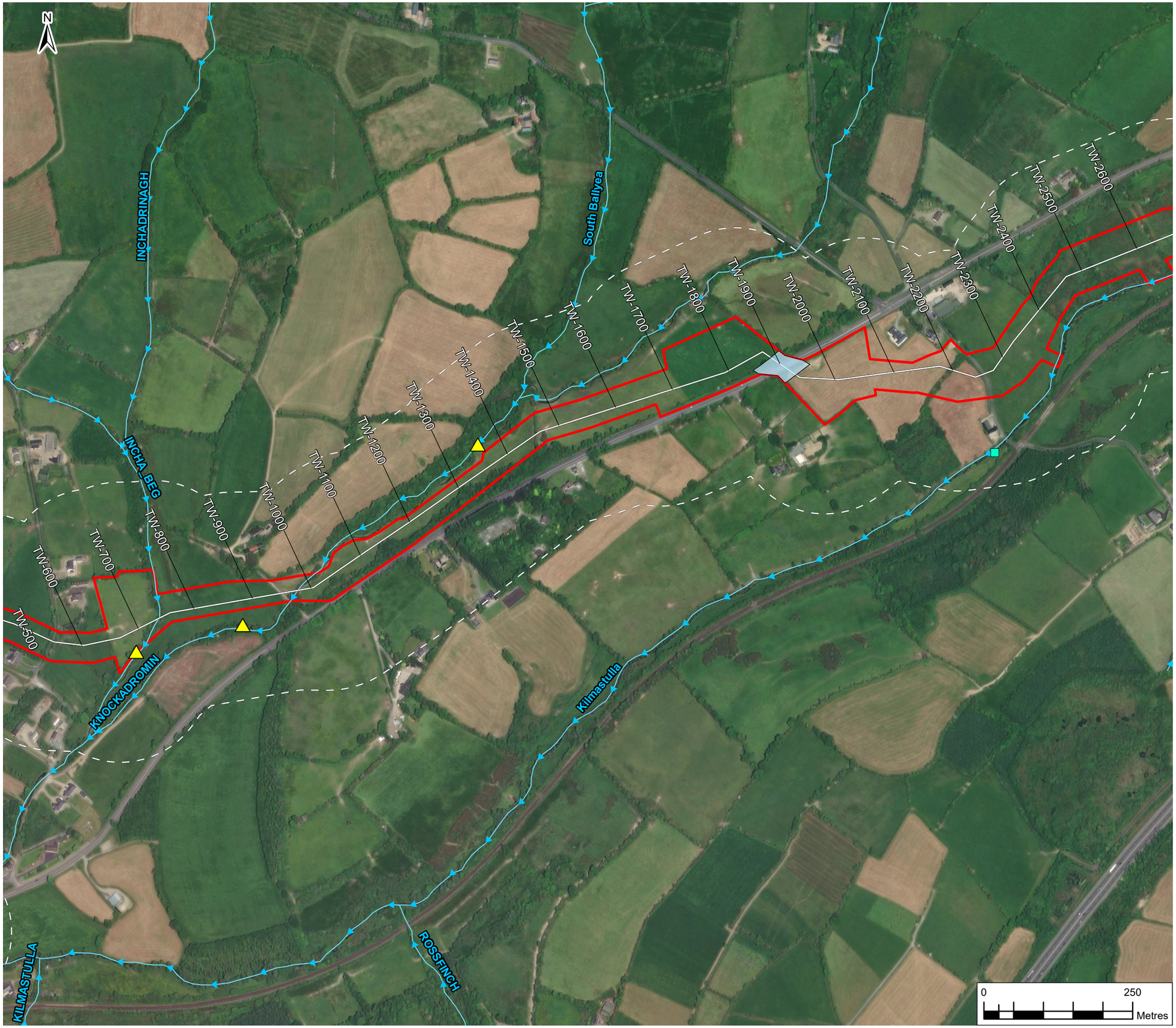
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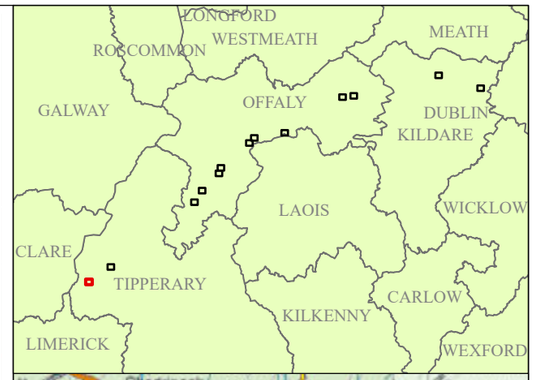
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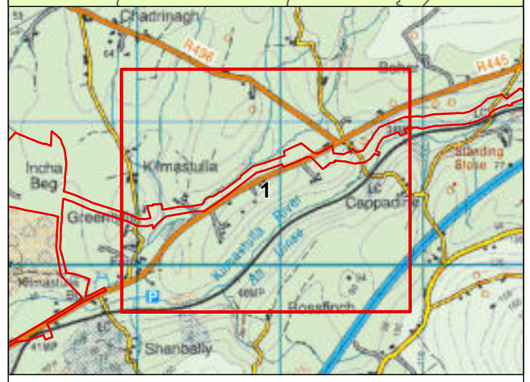
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Annex A – Figures







Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Tunnel Trenchless Crossing
- Otter Holts
- Otter Couches
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

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Client

Uisce Éireann Irish Water

Tionscadal Soláthair Uisce Water Supply Project

Project

Water Supply Project
Eastern and Midlands Region

Drawing Title

Figure 1
Protected Fauna
Sheet 1 of 13

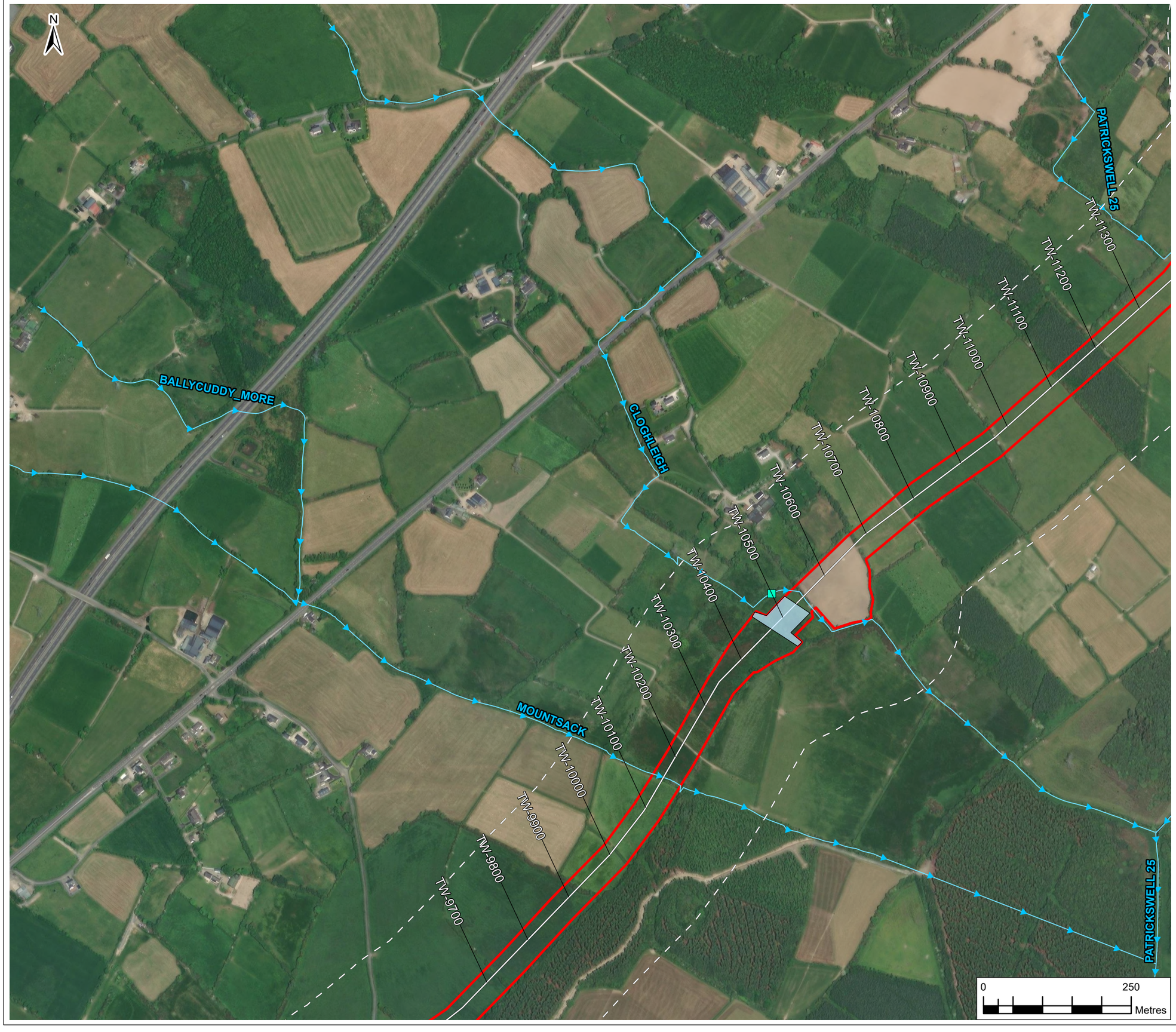
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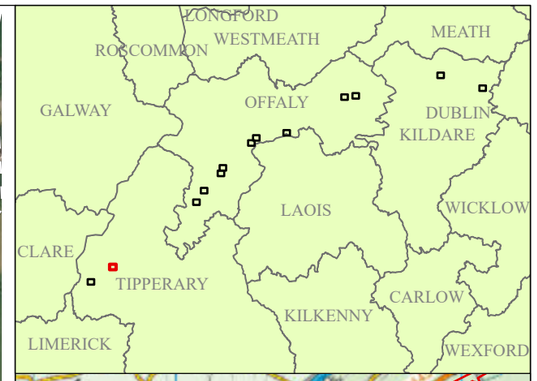
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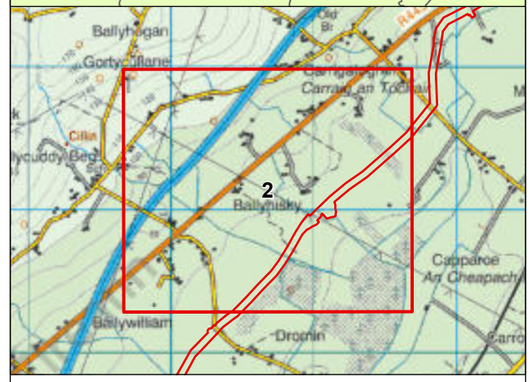
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
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- Otter Holts
- Otter Couches
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

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Client: Uisce Éireann Irish Water; Tionscadal Soláthair Uisce Water Supply Project

Project: Water Supply Project
Eastern and Midlands Region

Drawing Title: Figure 2
Protected Fauna
Sheet 2 of 13

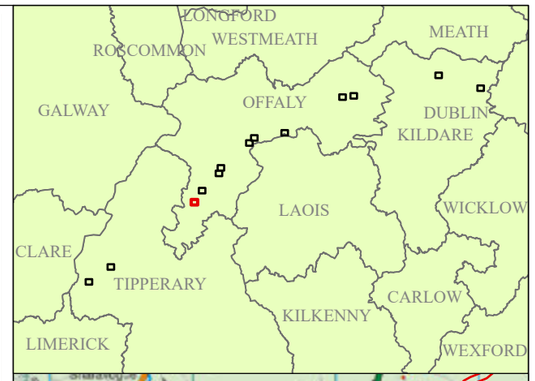
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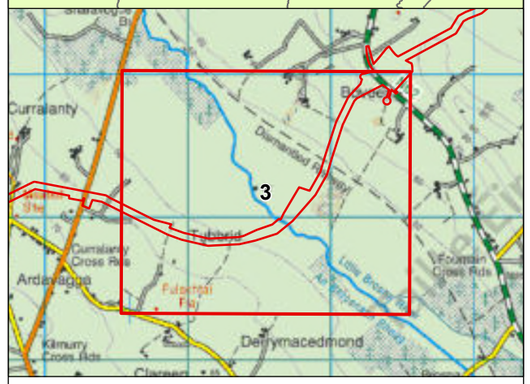
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Working in peat areas (Methods 2, 3, and 4)
- Tunnel Trenchless Crossing
- Tunnel/Trenchless Crossing with No Above Ground Disturbance
- Otter Holts
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

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Uisce Éireann Irish Water

Tionscadal Soláthair Uisce Water Supply Project

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Water Supply Project
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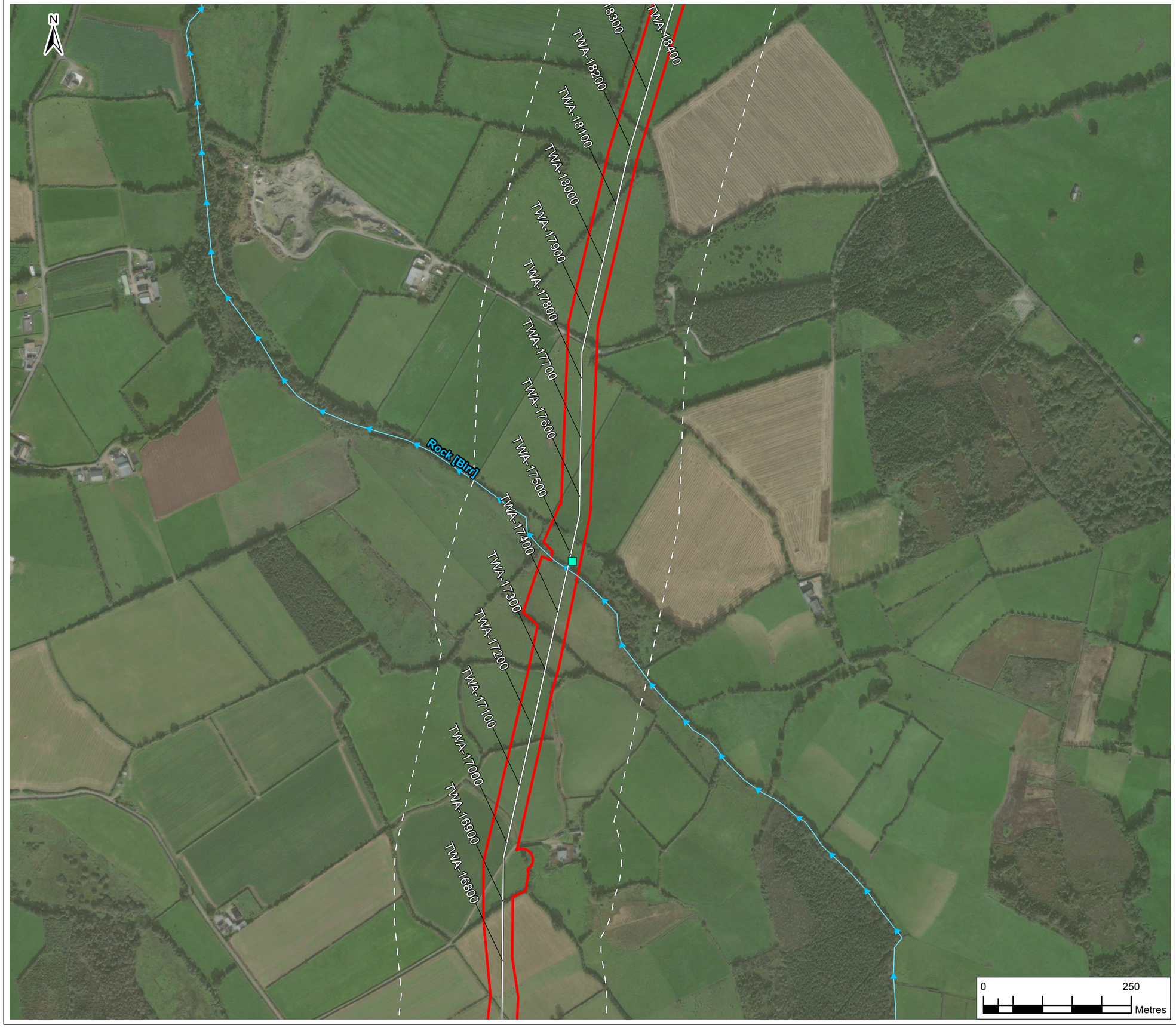
Figure 3
Protected Fauna
Sheet 3 of 13

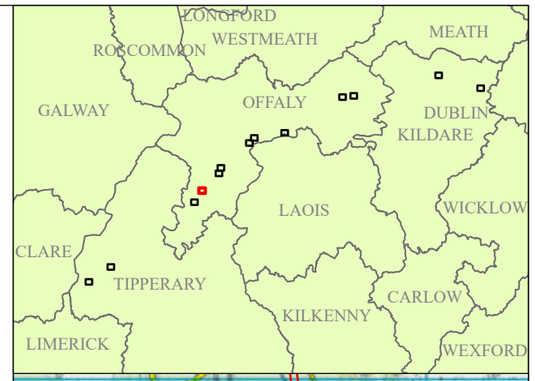
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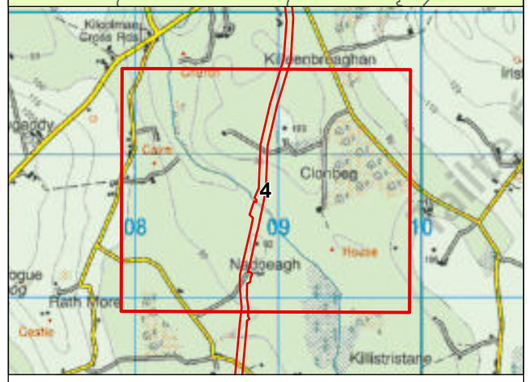
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Otter Holts
- Otter Couches
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client: Uisce Éireann Irish Water; Tionscadal Soláthair Uisce Water Supply Project

Project: Water Supply Project
Eastern and Midlands Region

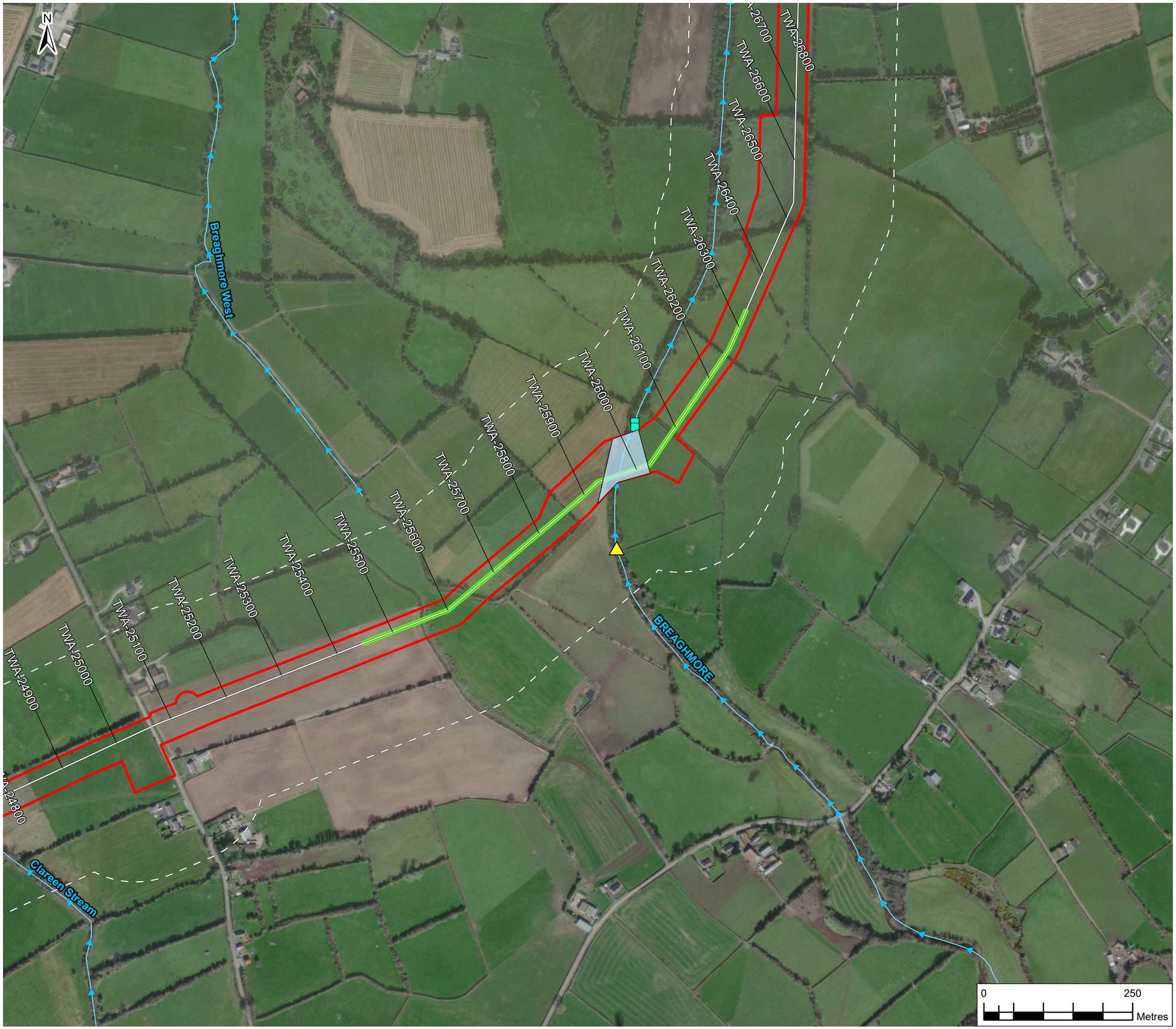
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Sheet 4 of 13

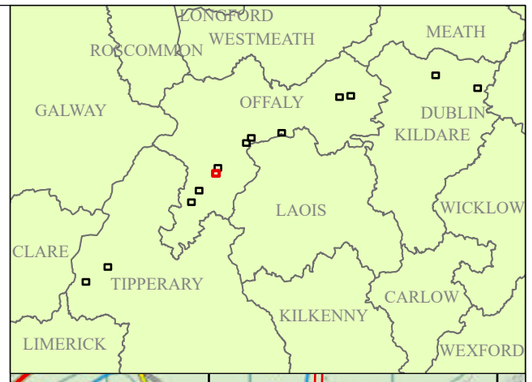
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Working in peat areas (Methods 2, 3, and 4)
- Tunnel Trenchless Crossing
- Otter Holts
- Otter Couches
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client: Uisce Éireann Irish Water; Tionscadal Soláthair Uisce Water Supply Project

Project: Water Supply Project
Eastern and Midlands Region

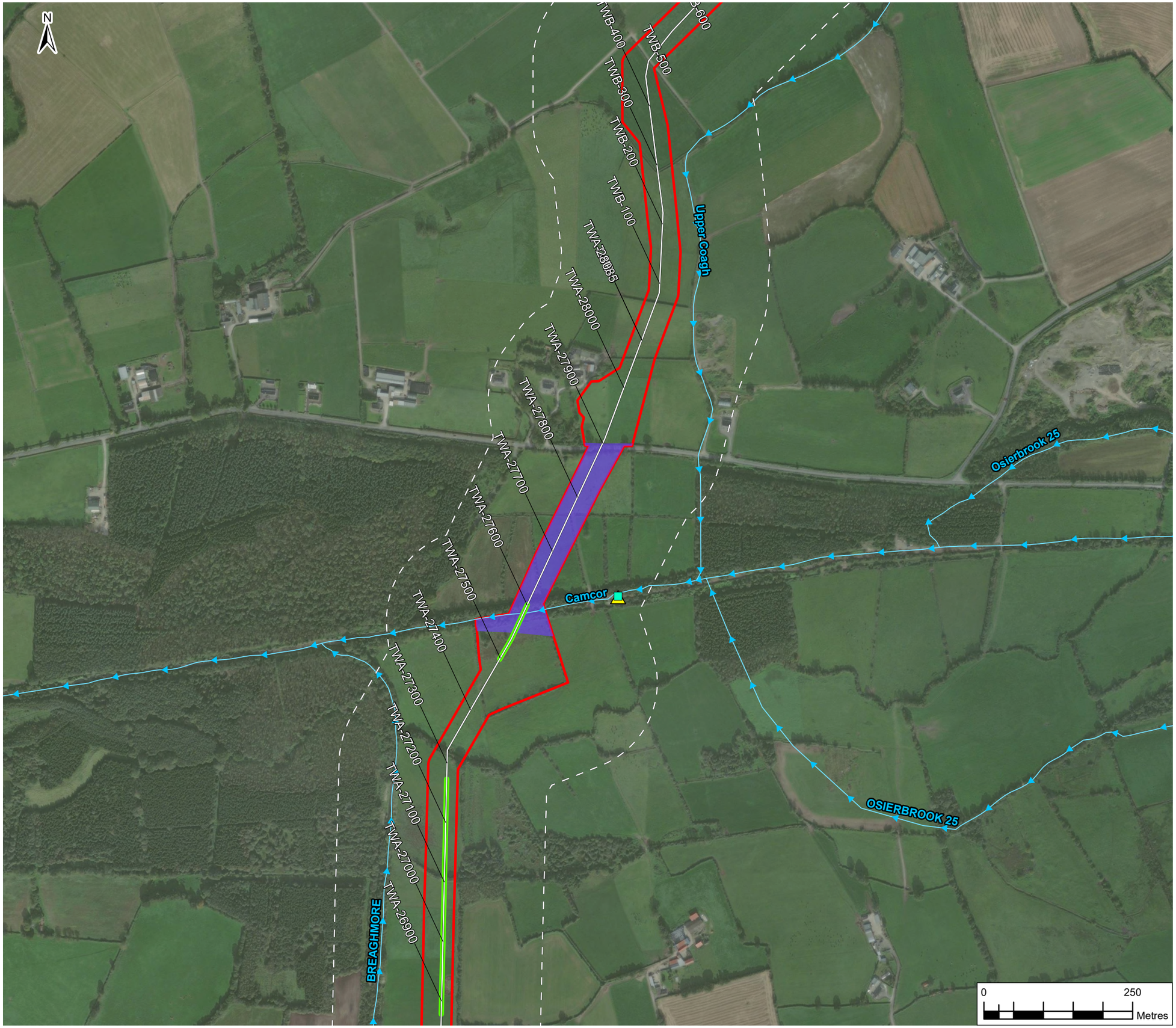
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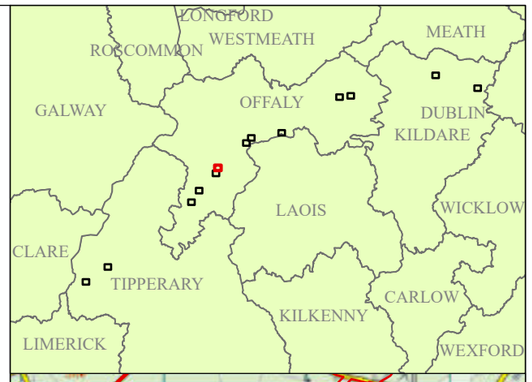
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Working in peat areas (Methods 2, 3, and 4)
- Tunnel/Trenchless Crossing with No Above Ground Disturbance
- Otter Holts
- Otter Couches
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client: Uisce Éireann Irish Water; Tionscadal Soláthair Uisce Water Supply Project

Project: Water Supply Project
Eastern and Midlands Region

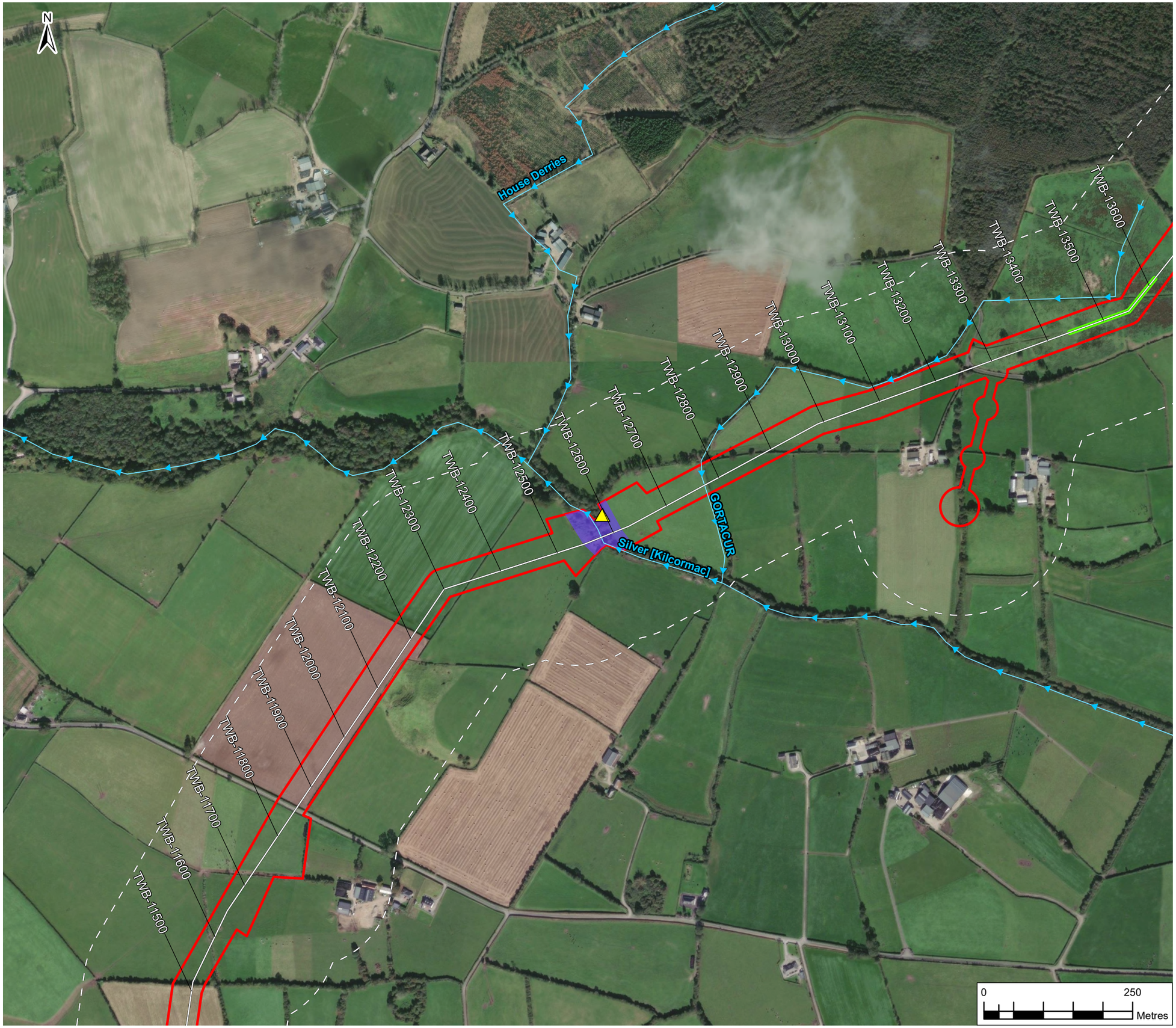
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Protected Fauna
Sheet 6 of 13

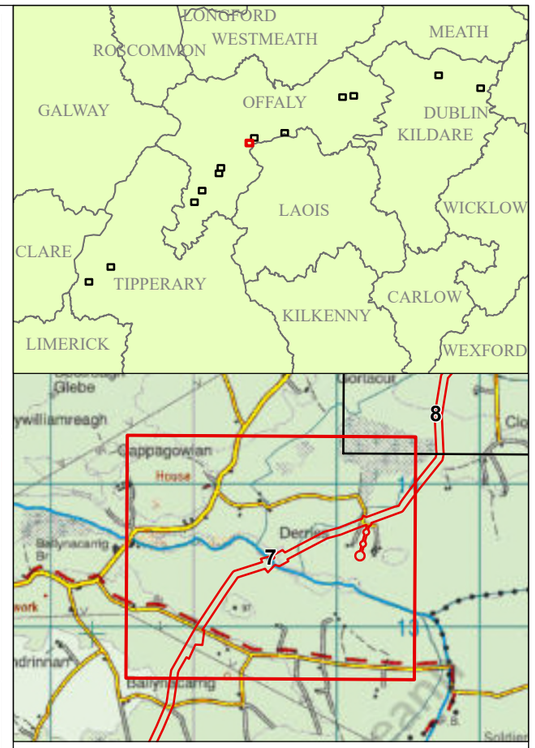
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Working in peat areas (Methods 2, 3, and 4)
- Tunnel/Trenchless Crossing with No Above Ground Disturbance
- Otter Holts
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client: Uisce Éireann Irish Water; Tionscadal Soláthair Uisce Water Supply Project

Project: Water Supply Project
Eastern and Midlands Region

Drawing Title: Figure 7
Protected Fauna
Sheet 7 of 13

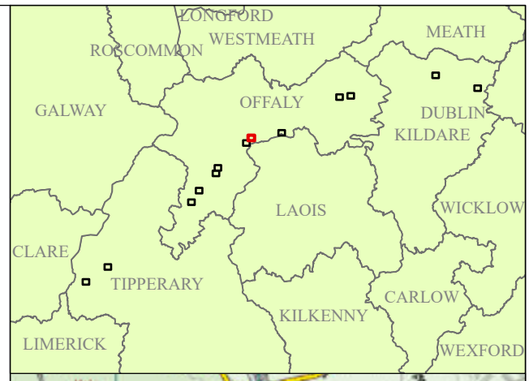
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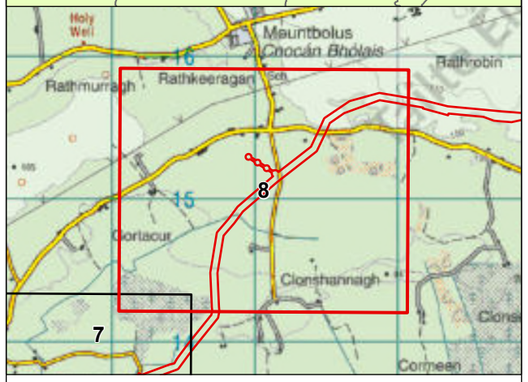
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Otter Holts
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client

Uisce Éireann Irish Water

Tionscadal Soláthair Uisce Water Supply Project

Project

Water Supply Project
Eastern and Midlands Region

Drawing Title

Figure 8
Protected Fauna
Sheet 8 of 13

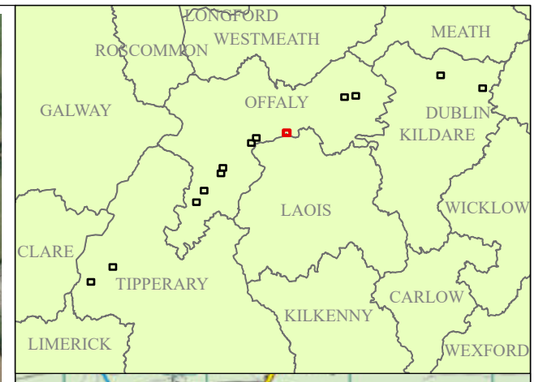
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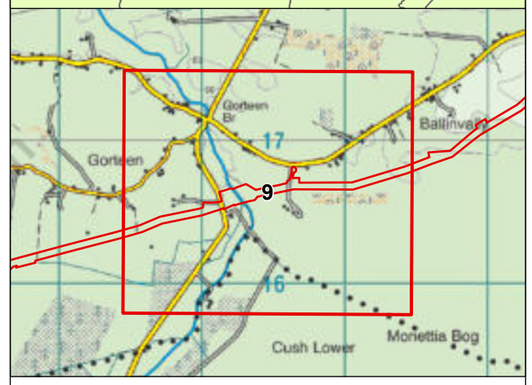
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Working in peat areas (Methods 2, 3, and 4)
- Tunnel/Trenchless Crossing with No Above Ground Disturbance
- Otter Holts
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client: Uisce Éireann Irish Water; Tionscadal Soláthair Uisce Water Supply Project

Project: Water Supply Project
Eastern and Midlands Region

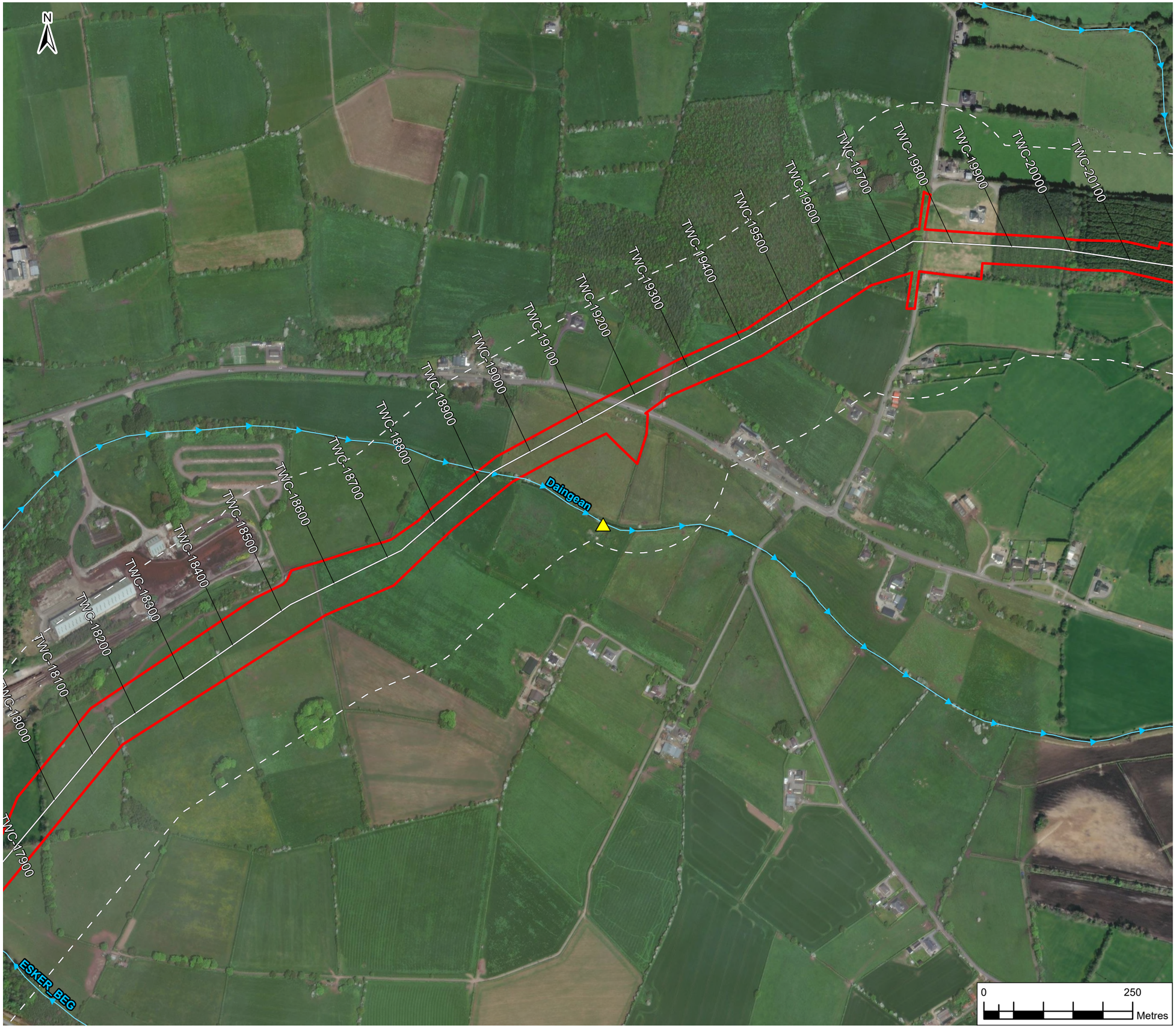
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Sheet 9 of 13

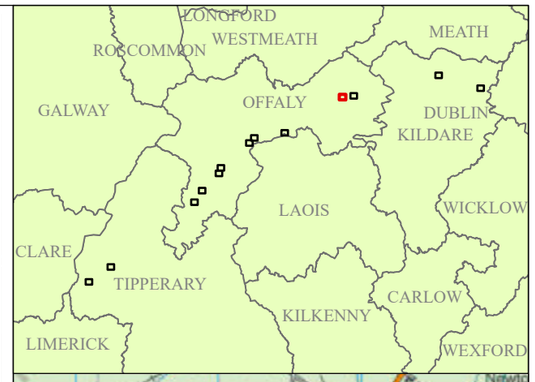
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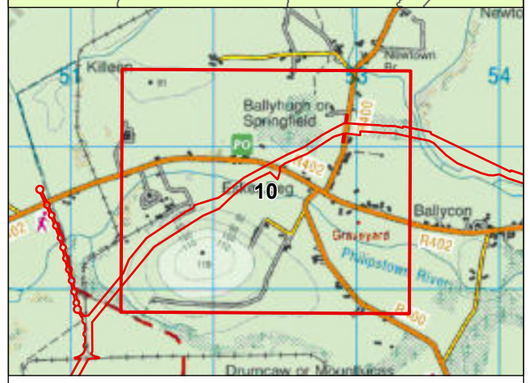
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Otter Holts
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client

Uisce Éireann Irish Water

Tionscadal Soláthair Uisce Water Supply Project

Project

Water Supply Project
Eastern and Midlands Region

Drawing Title

Figure 10
Protected Fauna
Sheet 10 of 13

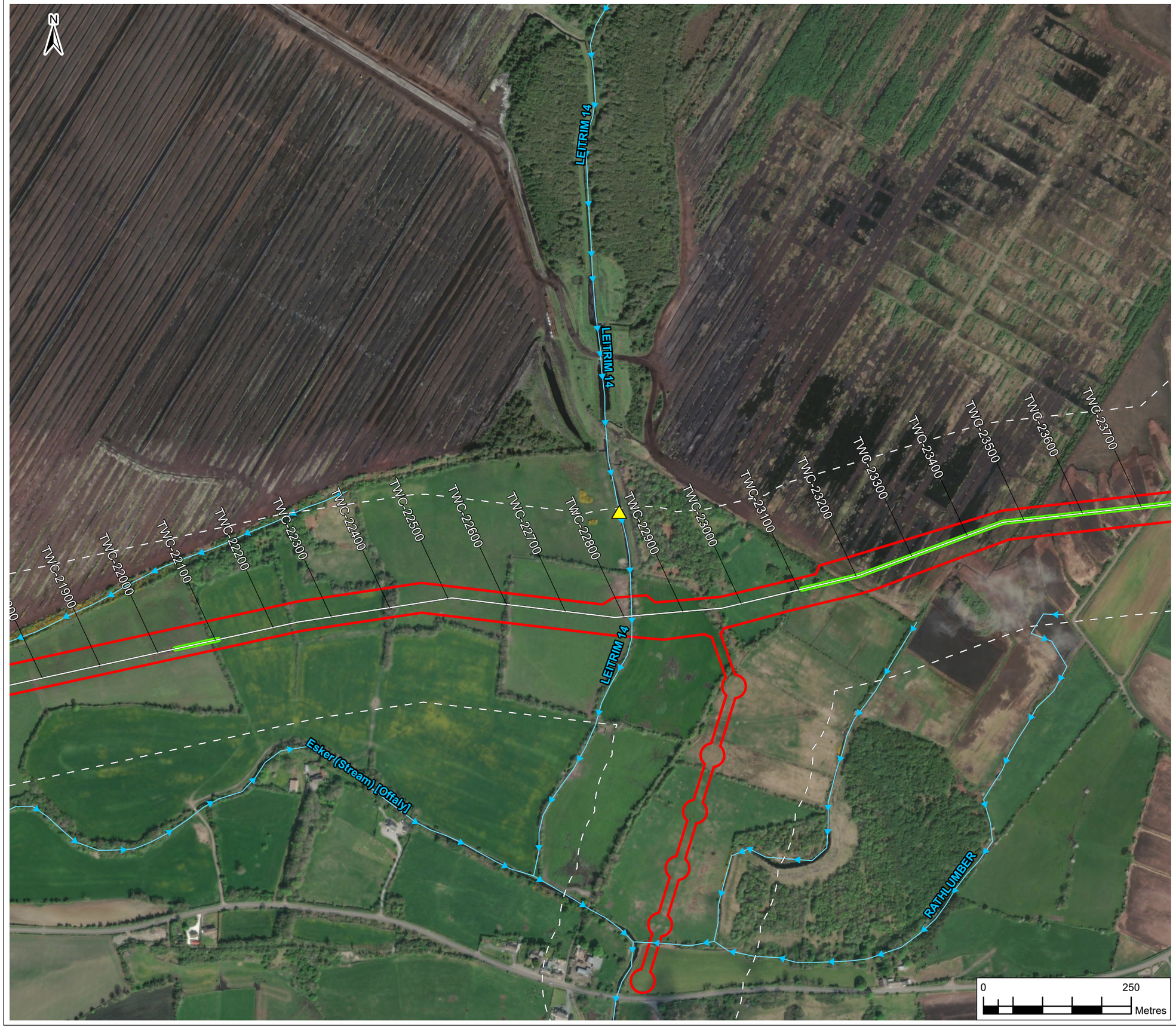
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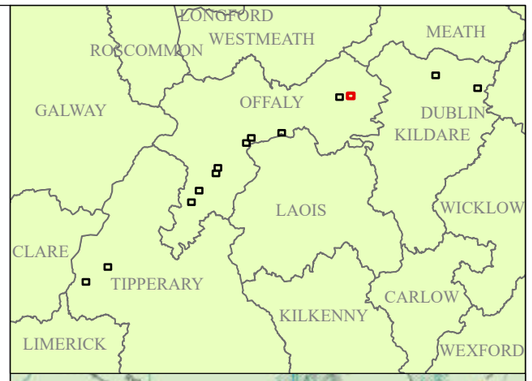
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Working in peat areas (Methods 2, 3, and 4)
- Otter Holts
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client: Uisce Éireann Irish Water; Tionscadal Soláthair Uisce Water Supply Project

Project: Water Supply Project
Eastern and Midlands Region

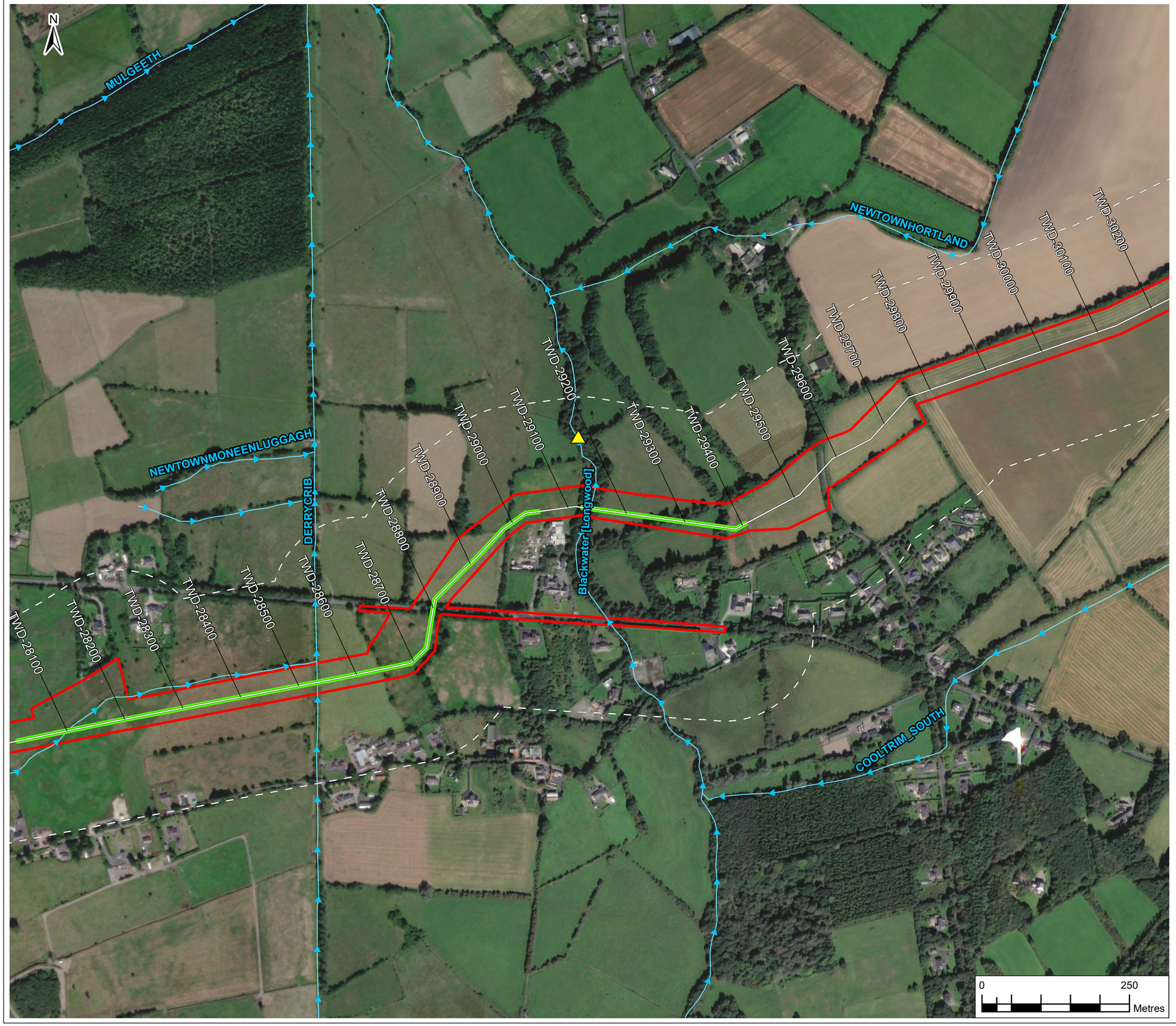
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Sheet 11 of 13

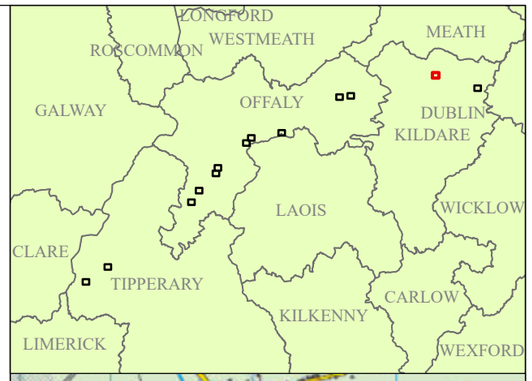
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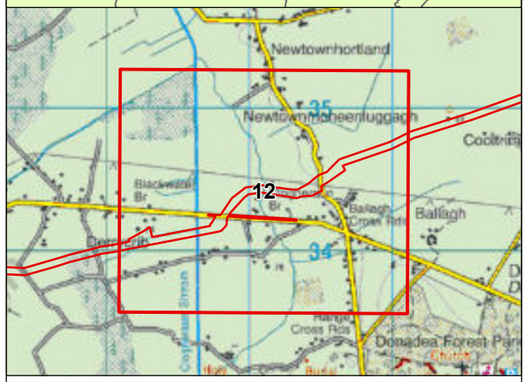
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Working in peat areas (Methods 2, 3, and 4)
- Otter Holts
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client

Uisce Éireann Irish Water

Tionscadal Soláthair Uisce Water Supply Project

Project

Water Supply Project
Eastern and Midlands Region

Drawing Title

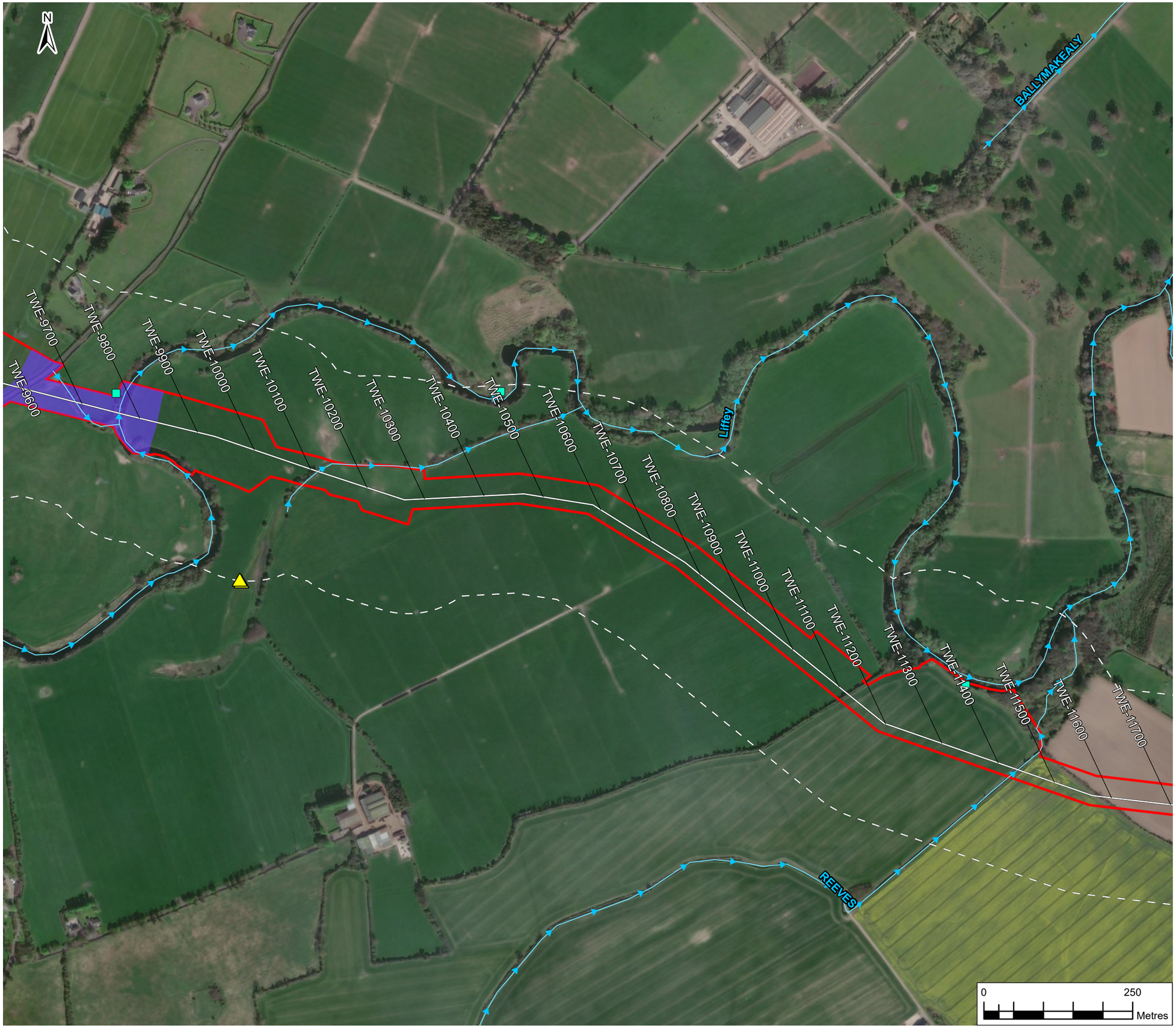
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Protected Fauna
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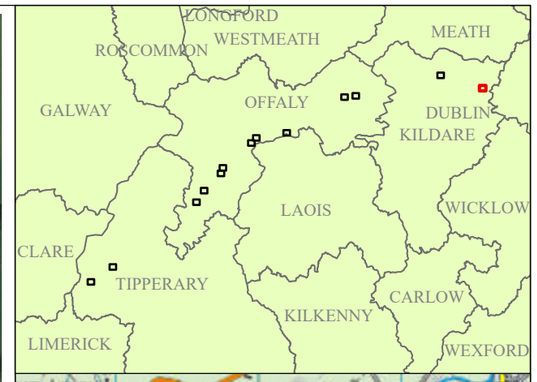
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Legend

- Planning Application Boundary
- 150m Buffer
- Indicative Pipeline
- Tunnel/Trenchless Crossing with No Above Ground Disturbance
- Otter Holts
- Otter Couches
- Rivers/Streams

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
F05	07/08/26	Final - Planning Application	KK	LK	SN	SW

Jacobs TOBIN

Client

Uisce Éireann Irish Water

Tionscadal Soláthair Uisce Water Supply Project

Project

Water Supply Project
Eastern and Midlands Region

Drawing Title

Figure 13
Protected Fauna
Sheet 13 of 13

Drawing Status

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