

Otter Derogation Licence Supporting Document

Hospital Wastewater
Treatment Plant, Co.
Limerick





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1. INTRODUCTION

This report provides information in support of an application for a derogation under Regulation 54 & 4A of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended. This application is specifically for:

- The potential disturbance of a known (non-natal) resting place (holt) of otter (*Lutra lutra*).

This document provides the necessary information to assess the application, in line with guidance provided by the NPWS and the European Commission.

1.1 Objective of the Proposed Works

The derogation is required to facilitate the Proposed Development at the existing Hospital WwTP, which will occur in close proximity to the Otter Holt along the River Mahore.

1.2 Statement of Authority

This derogation license application has been prepared by Rachel Minogue (B.Sc., Env). Rachel is a project ecologist with MKO, with 3 years' experience in Ecological Consultancy.

An initial multidisciplinary ecological walkover survey was conducted by Rachel Minogue (B.Sc) and Colin Murphy (BSc., MSc) on the 24/05/2023, by Rachel Minogue (BSc) and Katy Beckett (BA.,MSc) on the 23/06/2023, by Rachel Minogue (BSc) and Deirdre McCarthy (BSc) on the 10/07/2023, by Rachel Minogue (BSc) and Tom Peters (BSc., MSc) on the 16/08/2023, by Rachel Minogue (BSc), Ciara Lynn Sheehan (BSc), and Deepali Mooloo (BSc., MSc) on the 14/09/2023, and by Rachel Minogue (BSc) and Tom Peters (BSc., MSc) on the 04/10/2023.

This report has been reviewed by Rachel Walsh (B.Sc. Env, MCIEEM). Rachel has extensive experience in professional ecological consultancy and has undertaken Appropriate Assessments and Ecological Impact Assessments for a wide range of projects including renewable energy and wastewater infrastructure.

2. BACKGROUND

2.1 Proposed Activity

The proposed development involves the upgrading of the existing Hospital WwTP to cater for the future agglomeration load and to ensure compliance with future WWDL Emission Limit Values (ELVs). The proposed development will be divided into 2 major elements including a new WWTP on a greenfield site to the west of the site, and a refurbishment to the existing plant.

2.2 Ownership

The land adjoining the proposed headwall location is in the ownership of Uisce Éireann.

2.3 Location

The site of the Proposed Development is located 500m northwest of Hospital Town, Co. Limerick (Grid Reference: R 70427 36279). The site is 24km southeast from Limerick City. To the north of the site is the Mahore River, which flows in a north-westerly direction. The site is surrounded by agricultural lands to the north, west, and south. To the east of the site is the Hospital/ Herberstown GAA club, and Hospital Church and Graveyard. The closest Mapped European Designated Site is Glen Bog SAC [001430], which is located approx 4.7km northwest of the proposed development site. The site can be accessed via the R513 to the east of the site.

The Proposed Development Site is located approximately 10m south of the otter holt along the River Mahore. The Proposed outfall/ headwall is located approximately 35m west of the otter holt, along an unmapped drainage ditch.

2.4 Reason for Activity

The Hospital agglomeration is served by a gravity network, which arrives to the existing WwTP under the existing access road between the local GAA pitch and graveyard. A second influent line also arrives unscreened to the WwTP downstream of the existing inlet works. The existing wastewater treatment plant (WwTP) includes the following treatment stages:

- > Storm overflow with separate outfall to river Mahore upstream of the plant;
- > Preliminary treatment, consisting in a single inlet combined screw screen, with an emergency overflow to the Mahore river;
- > FFT PS;
- > Primary sedimentation tank;
- > 2no. trickling filters
- > Final settlement tank;
- > New 150m³ storm tank, provided recently by another contractor.
- > Sludge treatment: new 82m³ picket fence thickener (PFT), provided recently by another contractor;

Following treatment, secondary treated effluent from the WwTP is discharged to the Mahore river in the same outfall as the inlet works emergency overflow. The outfall from the existing Hospital WwTP enters the river Mahore approximately 20m to the north-east of the WwTP site boundary. Part of the works will be to replace the existing outfall to discharge directly into the Mahore River to accommodate future flows.

The existing WwTP is significantly overloaded and not fit-for purpose, resulting in failure to meet the Wastewater Discharge Licence (WWDL) requirements in recent years. Consequently, an upgrade of the

treatment process is required. The purpose of this project is to upgrade the existing WwTP to cater for the future agglomeration load and to ensure compliance with the future WWDL Emission Limit Values (ELVs). The design of the new infrastructure to be provided under this contract is detailed in the following sections.

The Proposed Development involve the upgrading of the existing Hospital WwTP to cater for the future agglomeration load and to ensure compliance with future WWDL Emission Limit Values (ELVs). The proposed upgrade works will be divided into 2 major elements including a new WWTP on a greenfield site to the west of the site, and a refurbishment to the existing plant, encompassed by 5 specific zones.

The proposed upgrade works will provide a range of benefits to the community, the environment of Hospital and the waters of the River Mahore in addition to the project objectives. The following are number of the benefits of which the upgrade works will provide:

- The provision of new secondary aeration and settlement tanks will greatly improve the treatment process of the WwTP, this additional tank will allow greater settlement of the treated effluent greatly reducing the suspended solids carry over in the final effluent. This will also add to the condition of the final effluent quality discharging to the River Mahore.
- The provision of new sludge drying reed beds will allow for sludge to be wasted from the secondary treatment process. This will provide for a more efficient secondary treatment and enhance the quality of the final effluent. This will also add to the condition of the final effluent quality discharging to the River Mahore.
- The proposed upgrade works shall significantly reduce the number of sludge removal tankers to and from Hospital WWTP. The current sludge holding capacity is approximately 7 to 14 days, requiring regular tankers visit the site.
- The proposed upgrade works will increase the plants' ability to meet the emission conditions set out in the Wastewater Discharge Licence.

2.5 Planning History

The planning application Pl ref: 24/61242 was submitted on the 11/12/2024. A further information request (FIR) was received by Limerick County Council on the 12/05/2025.

The full description of the Proposed Development, as per the site notices, is as follows:

'Uisce Éireann, intend to apply for permission for development at the existing Hospital Wastewater Treatment Plant site at Hospital, Kilmallock, County Limerick.

The development will consist of: construction of an inlet works, construction of a storm water holding tank complete with cleaning system, construction of a forward feed pumping station, construction of secondary aeration tanks, construction of final settlement tanks, construction of sludge drying reed beds; construction of a control building with welfare facilities; construction of an esb substation, construction of a mixed liquor return pumping station, construction of domestic foul pumping station, construction of a stream crossing, construction of a new outfall, installation of photo-voltaic panels, installation of ferric sulphate and sodium hydroxide bulk storage tanks, demolition of existing structures, and all ancillary site development works including drainage, hard and soft landscaping'

3. **PROPOSED WORKS**

The proposed development involves the upgrading of the existing Hospital WwTP to cater for the future agglomeration load and to ensure compliance with future WWDL Emission Limit Values (ELVs). The proposed development will be divided into 2 major elements including a new WWTP on a greenfield site to the west of the site, and a refurbishment to the existing plant, encompassed by 5 specific zones, detailed below:

3.1 **Zone 1- Sludge Drying Reed Beds**

Subsequent to the stripping of topsoil from the reed bed areas the 6 holding ponds will be excavated to a maximum depth of 2m below the existing ground level. A large percentage of the excavated spoil will be used to form the reed bed embankment sides, and the remainder will be removed from site by an appropriately licensed contractor and taken to a licenced recovery or waste disposal facility. Stockpiling of excavated material will take place in a designated area in the southern section of the site, adjacent to the site boundary. The stockpiles will be surrounded with double provision of silt fencing in parallel.

During excavation, any groundwater encountered will be pumped-out of the area and into a series of mobile filtering settlement tanks before being discharged through a pipe with a silt bag attached on to an area of overland vegetation within the site boundary.

Each reed bed will have a crushed stone base, placed to the excavated area before the sludge supply pipework is introduced. Installation of a proprietary impermeable liner is positioned with 100-150mm layer of growth media placed in the base of each of the 6 beds and planting of reed plants in completed.

3.2 **Zone 2- Access Road**

The access road will be extended from the existing plant through the current boundary and into the new greenfield site. The topsoil will be stripped and stockpiled in a sealed mound within the site boundary. All the topsoil stripped across the site will be stockpiled, sealed and seeded with a double silt fence installed around the stockpile.

The proposed access road will be excavated down to a suitable depth to present a load bearing layer, and this spoil will be removed from site by an appropriately licensed contractor and taken to a licenced recovery or waste disposal facility.-A layer of permeable aggregate in the form of clause 804 gravel or similar will then be installed. This layer will be compacted and checked for correct levels. The access road will be used as a haul road during construction and will be maintained throughout to prevent breakdown of bearing conditions. As construction progresses, the access road will be upgraded from a haul road to a finished product with drainage and kerbs work being installed. The finished tarmac surfacing will be placed in 2 layers with a coarse binder layer placed on the aggregate base and final wearing course placed at a later stage to minimise damage from construction traffic.

The section of access road crossing the existing plant will remain unfinished until the refurbishment of Zone 5.

3.3 **Zone 3- Inlet Screens**

Works will include tandem inlet screens and grit trap chambers designed to allow both maintenance within the system and increased influent loads. These units are above ground which will sit on a structural slab with integral pipework excavated and placed as per EU Standards. The structural slab will be excavated down to a layer of load bearing sub-soil and built back up to formation using an appropriately sized aggregate material. The slab will be formed and poured with structural concrete and reinforcing steel with drainage and electrical pipe/ duct work included.

The screen and grit trap units will arrive on site with prefabricated elements being given final assembly in place. The connection of power and water supply will be made from the earlier completed service ducting.

3.4 **Zone 4- Process Tanks**

The main process area within the project is Zone 4 where both Final Settlement Tanks and Aeration Tanks are located.

3.4.1 **Final Settlement Tanks (FST)**

There will be the two circular final settlement tanks (FST) constructed in Zone 4. The topsoil and subsoil will be excavated to a maximum depth of 3m below the existing ground level. During excavation any groundwater encountered will be pumped out of the area and into a series of mobile filtering settlement tanks before being discharged through a pipe with a silt bag attached on to an area of overland vegetation within the site boundary. The excavation will be accomplished with a stepped dig including a sloped access ramp to account for safety and ease of construction.

The lowest point of this structure will include a structural support slab for the FST and will form the base of a prefabricated tank. This tank will be constructed on site from sectional fibreglass panels bolted together and encased in a concrete fill from base to top of structure. Placement of assembled tanks into final position will be accomplished with use of an appropriate crane working from a suitable hard stand base on the proposed access road.

3.4.2 **Aeration Tanks**

The Aeration tank will be a rectangular concrete tank featuring 2 cells excavated to a maximum of 2m below existing ground level. This excavation will require the removal of spoil which will be, which will be removed from site by an appropriately licensed contractor and taken to a licenced recovery or waste disposal facility. During excavation any groundwater encountered will be pumped out of the area and into a series of mobile filtering settlement tanks before being discharged through a pipe with a silt bag attached on to an area of overland vegetation within the site boundary.

The aeration tanks will require a concrete screed poured over a layer of crushed aggregate at the loadbearing subsoil formation level. This screed is needed to act as a base for the precast concrete wall elements which will be transported to site and assembled in place. Placement of precast wall sections into final position will be accomplished with use of an appropriate crane working from a suitable hard stand base on the proposed access road. The system will use a precast wall/in-situ alternative fill method where an infill of on-site poured concrete formed to complete. Pipework will be installed from shallow excavations into and around aeration tanks as the backfilling is progressed.

The backfilling of tank surrounds will be accomplished with imported clean aggregate to UE standards and once complete there will be an access slab, ramp and platform installed around the area.

3.4.3 **Control Room**

The control room will be built in this zone and will be a prefabricated building placed on an in-situ structural slab. The structural slab will be excavated down to a layer of load bearing sub-soil and built back up to formation with a crushed aggregate. The slab will be formed and poured with structural concrete and reinforcing steel with drainage and electrical pipe/duct work included.

3.5 **Zone 5- Refurbishment/ Storm Tank Area**

The existing Wastewater Treatment Plant will stay operational throughout the construction phase and, as such, the refurbishment will be scheduled towards the end of the construction phase. Access and transport will be facilitated through the existing plant as the new plant is constructed.

The newer storm tank which was constructed within the last 3 years as part of ongoing plant upgrades, will be adapted and used in conjunction with a new storm tank constructed in zone 5 to meet UE storm water holding parameters. Adaptation will be in the form of a precast dividing wall and new pipework and pump installation. The removal of a temporary sludge tank to re-purposed elsewhere will also be completed as part of the refurbishment works. This 36m³ temporary sludge holding tank will be decommissioned as part of the project upgrade and will be removed of site to another UE project.

3.5.1 **Decommissioning of Existing Wastewater Treatment Plant**

As the new system comes online, the older defunct sections of the existing plant within Zone 5 will be decommissioned and demolished to make way for new elements such as a solar photovoltaic (PV) array. The existing inlet works, Imhoff Tank, temporary sludge holding tank, existing percolation filters (2 no.), existing dosing siphon chamber, and humus tank will be decommissioned/demolished.

The trickling filters and older storm tanks will be removed to make way for a solar array PV installation with ducting laid in to the proposed control room facilities.

This methodology will involve:

- Flows will be diverted to new infrastructure constructed following successful dry / offline commissioning.
- Once new infrastructure / processes are successfully wet commissioned, pipework to tanks to be decommissioned / demolished will be terminated.
- Tanks to be decommissioned / demolished will be drained, desludged, and cleaned by a licensed Contractor.
- Concrete tanks will be demolished using an excavator. Construction and demolition waste will be removed off site by a licensed haulier to a licensed disposal facility.
- Areas will be reinstated with suitable material to ground level.

3.5.2 **Erection of Ground-Mounted Solar Panels**

Solar panels will be erected on a galvanised steel support structure/frame. Mounting structures will be designed to the appropriate size and will be installed to withstand adverse or extreme weather conditions. Civil works associated with the installation of the steel mounting frames will be minor with minimal ground disturbance. Depending on soil conditions, they will be anchored using earth screws or rammed profiles to a depth of up to 1.5m.

Other ancillary works such as the installation of cabling and ducting will also be required. The ground will be trenched using a mechanical excavator. The top layer of soil will be removed and saved so that it can be replaced on completion. The depth of the cables will meet all safety requirements with suitable marking tape laid between the cables and the finished surface.

3.5.3 **Culvert Works**

To provide connectivity between the existing treatment plant site and the proposed upgrade on the adjacent site, a road crossing of the drainage ditch which crosses the centre of the site and flows into the River Mahore is required. Culverting of a section of approx 20m of the drainage ditch is required to facilitate road and services crossing. To facilitate the works, a 1m by 1.5m box culvert is proposed for the section of the road crossing with headwalls constructed on the inlet and outlet of the structure.

Construction of Outfall and Headwall

As part of the upgrade works at Hospital WwTP, a 1M diameter outfall pipe and headwall arrangement will be constructed to the north of the site, along a drainage ditch that outfalls to the River Mahore, following the guidelines as summarised below.

1. A line of sheet piles will be driven along the riverbank forward of the headwall position. A second line running perpendicular to the first line along the side of the existing drainage ditch is required to avoid contamination into that water course. The 1M pipeline moves back from both drainage ditch and river to the storm tank with increasing distance to both allowing for less risk to the watercourses.
2. Once sheet piles are in place, excavation will commence.
3. The base of the headwall will be excavated to approx 300mm below the required depth and built up with a clean washed stone to within 75mm of the required depth.
4. A suitable geotextile will be placed on the clean washed stone and a 75mm layer of 25N/mm² concrete will be placed to support the Headwall units.
5. A pipeline will be excavated back along the Wayleave from the headwall position.
6. Once the 'leanmix' concrete is set and capable of holding the precast units then they can be placed into the excavation using the appropriate machinery to the required position.
7. Once emplaced the pipework will be laid back from the headwall with a base shingle layer to bed pipes and an appropriate aggregate over the crown to Uisce Eireann standards for backfilling.
8. The surround of the precast headwall unit will be backfilled with aggregate up to within 400mm of the existing ground level and a layer of subsoil and topsoil can finish to surface.
9. If the low flow period persists then the sheetpiles can be removed, if the river has risen then the recommendation is to wait until the next low flow period to remove.

4. ECOLOGICAL SURVEYS AND SITE ASSESSMENT

4.1 Pre-existing Information

The National Biodiversity Data Centre (NBDC) was searched for records of otter for the hectad pertaining to the Proposed Development (**R73**). Otter was recorded within the hectad R73.

Otter is protected under Annex II and IV of the EU Habitats Directive, as well as protected under the Wildlife Act.

4.2 Status of species in local/regional area

There are no threats and pressures for otter (*Lutra lutra*) in the Article 17 Report (NPWS, 2018). In Ireland, otter have an overall favourable conservation status, and the trend in conservation status is listed as 'improving'.

The otter population is considered to be stable and none of the threats or pressures identified is considered likely to impact significantly on the species. Overall, the species is assessed as 'Favourable' and the overall trend is demonstrating an on-going increase.

4.3 Survey Objective

A targeted Otter (*Lutra lutra*) survey was undertaken 200m upstream and downstream from the existing outfall location along the River Mahore during the initial multi-disciplinary walkover survey carried out on the 24/05/2023. A potential Otter holt was recorded along with various Otter signs (prints, couch, spraints) along the River Mahore, in close proximity to the existing outflow location. Subsequently, infrared motion sensor trail cameras were deployed to determine Otter activity within the potential Otter holt.

4.4 Description of the Survey Area

The otter holt was recorded along the banks of the River Mahore, which flows to the northern boundary of the Proposed Development Site, classified as a **Depositing Lowland River (FW2)**. The habitats surrounding the river include **treeline (WL2)**, **hedgerow (WL1)**, **improved agricultural grassland (GA1)**, **dry meadows and grassy verges (GS2)**, and **buildings and artificial surfaces (BL3)**.

4.5 Survey Methodology

A targeted Otter (*Lutra lutra*) survey was undertaken 200m upstream and downstream from the existing outfall location along the River Mahore during the initial multi-disciplinary walkover survey carried out on the 24/05/2023. A potential Otter holt was recorded along with various Otter signs (prints, couch, spraints) along the River Mahore, in close proximity to the existing outflow location on the 24/05/2023.

Subsequently, infrared motion sensor trail cameras were deployed on the 23/06/2023, and collected on the 10/07/2023, deployed on the 16/08/2023, and collected on the 14/09/2023, and most recently deployed on the 11/11/2025 and collected on the 27/11/2025 to determine Otter activity within the potential Otter holt. The cameras were left out at the site for 3-4 weeks, and the footage was analysed once collected.

The surveys were undertaken in line with NRA (2009) guidelines (Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Scheme [s.](#)

Survey Results

Table 4-1 Survey Results

Survey Date	Survey Methodology	Summary of findings
24/05/2023.	<ul style="list-style-type: none"> Initial walkover survey of the existing Hospital WwTP, and aquatic instream survey of the River Mahore to assess the river's suitability to support Otter populations and to record any potential Otter signs. 	<ul style="list-style-type: none"> The River Mahore was assessed as providing suitable supporting habitat for Otters, including vegetated gravel/sand banks, fast flowing freshwater, vegetated riverbanks, and availability of aquatic prey Recorded various Otter (<i>Lutra lutra</i>) signs along the River Mahore, including a potential Otter holt along the western bank, couch, prints, and spraints in close proximity to the existing outflow pipe of the existing Hospital WwTP.
23/06/2023	<ul style="list-style-type: none"> 3x Trail cameras deployed along the River Mahore (<i>1x facing the potential holt, 1x where prints were recorded, and 1x further downstream from the holt identified</i>) Further aquatic survey of the River Mahore, including wading 200m upstream and downstream of the Otter Holt identified. Drains that run to the south and west of the WwTP were inspected from the banks/ wall for any further Otter Signs/ suitability to support Otters 	<ul style="list-style-type: none"> No further signs of otters were recorded 200m upstream or downstream from the Holt identified. Neither drain to the south or west of the WwTP were assessed as being unsuitable for Otters due to the small size, absence of fast flowing water and suitable unvegetated bank habitat
10/07/2023	<ul style="list-style-type: none"> 3x trail cameras collected after 3 weeks, and footage analysed 	<ul style="list-style-type: none"> Recorded a range of Otter footage (swimming, feeding, foraging, and entering the holt) Concluded from the camera footage that the Otters are actively using the holt, and the river to feed and forage.
16/08/2023	<ul style="list-style-type: none"> 2x more trail camera deployed for extended period of 4 weeks directly facing the Otter holt to identify for definite whether it is an active breeding/ maternal holt. 	<ul style="list-style-type: none"> N/A
14/09/2023	<ul style="list-style-type: none"> 2x trail cameras deployed for 4 weeks were collected, and footage analysed to identify 	<ul style="list-style-type: none"> Recorded a range of Otter footage from the two cameras deployed- one directly facing the Otter holt and one further downstream including swimming, feeding, foraging, and entering and leaving the holt.

	whether the Otter Holt identified was an active breeding/ natal holt.	<ul style="list-style-type: none"> From this footage, it was concluded that the Otters are actively using the identified holt, as well as the river to feed and forage. No footage evidence to suggest that the Otter holt was a natal holt (no evidence of cubs entering/ exiting the holt was recorded) was recorded. Further, the Otter Holt was subject to flooding. It is unlikely that this holt is a natal breeding holt based on its relatively exposed position on the waterfront and the flooding of the holt entrance during periods of high-water levels. Natal holts are typically located in secluded areas with security from disturbance and are always above flood levels (Liles, 2003; NIEA, 2011). While the entrance was not under water during the initial site survey, the holt was infiltrated by water during the final survey to collect the cameras on the 14/09/2023, indicating the regular flooding of the holt.
11/11/2025	<ul style="list-style-type: none"> 2x trail cameras deployed for 3 weeks 	<ul style="list-style-type: none"> N/A
27/11/2025	<ul style="list-style-type: none"> 2x trail cameras were collected, and footage analysed to identify any change in otter holt activity 	<ul style="list-style-type: none"> Water levels in the River Mahore were extremely high during the November 2025 surveys No footage or otter were recorded on the trail cameras Footage of mink was recorded in the vicinity of the otter holt
Conclusion		<ul style="list-style-type: none"> From the footage captured, it is concluded that this is an active non-breeding holt.

Population size and class assessment

The population size recorded to date at the holt location on the River Mahore has been one singular otter. This was determined during camera monitoring in 2023 and 2025. There has been no evidence of the holt being utilised regularly or for breeding during any of the camera monitoring periods.

Based on the information identified within the desk study, and during dedicated surveys undertaken, the holt is likely utilised by otters on occasion. As such, otter have been identified as of Local Importance (Higher Value).

5. EVIDENCE TO SUPPORT THE DEROGATION TESTS

The NPWS document, *Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats Directive in Ireland* - National Parks and Wildlife Service Guidance Series 1 (2021), was reviewed before undertaking this derogation application.

Article 16 of the Habitats Directive sets out three pre-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 preconditions are also set out in Regulation 54 of the Regulations.

The preconditions are:

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

It is believed that the pre-conditions for granting a derogation licence have been met, as follows:

5.1 Test 1 – Reasons for Seeking Derogation

Regulation 54(2) (a)–(e) states that a derogation licence may be granted for any of the reasons listed (a) to (e). We are of the opinion that the following reason applies:

- (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

In October 2023, the Environmental Protection Agency (EPA) published a report summarising the treatment of wastewater in Ireland during 2022 titled “Urban Wastewater Treatment in 2022”. Hospital WWTP was identified as 1 of 39 areas that are the main significant source of pollution impacting local waters. As such, if the issues within the Hospital WWTP are resolved the health of River Mahone will be significantly improved.

The existing Hospital WwTP is significantly overloaded and not fit-for purpose, resulting in failure to meet the Wastewater Discharge Licence (WWDL) requirements and the Good and High Environmental Quality Standards (EQS) as set out in the Surface Water Regulations 2009. The results of the ambient monitoring showed that there were increased concentrations of Ammonia, Biological Oxygen Demand and Orthophosphate downstream of the WWTP, resulting in a deterioration of water quality in the River Mahore downstream of the WwTP.

New infrastructure constructed under the IWSS Programme provided storm water and sludge storage facilities and did not increase the treatment capacity of the WWTP. As such, the WWTP continues to experience overflows and non-compliant final effluent. As such, an upgrade of the treatment process is required in the interest of public health and water quality.

The proposed upgrade works will provide a range of benefits to the community, the environment of Hospital and the waters of the River Mahore. The Proposed Development involve the upgrading of the

existing Hospital WwTP to cater for the future agglomeration load and to ensure compliance with future WWDL Emission Limit Values (ELVs)

5.2

Test 2 – There is no Satisfactory Alternative

The existing Hospital WwTP is significantly overloaded and not fit-for purpose, resulting in failure to meet the Wastewater Discharge Licence (WWDL) requirements and the Good and High Environmental Quality Standards (EQS) as set out in the Surface Water Regulations 2009. The results of the ambient monitoring showed that there were increased concentrations of Ammonia, Biological Oxygen Demand and Orthophosphate downstream of the WWTP, resulting in a deterioration of water quality in the River Mahore downstream of the WwTP.

If the proposed upgrade works at Hospital WwTP were not to go ahead, the treatment plant will continue to fail to meet the Wastewater Discharge Licence (WWDL) requirements, and the Good and High Environmental Quality Standards (EQS) as set out in the Surface Water Regulations 2009. As a result, water quality in the River Mahore would continue to deteriorate, and the current treatment plant would remain overloaded and not fit-for purpose.

The purpose of the upgrades to the existing WwTP is to cater for the future agglomeration load and to ensure compliance with the future WWDL Emission Limit Values (ELVs) through the following:

- The provision of new secondary aeration and settlement tanks will greatly improve the treatment process of the WwTP, this additional tank will allow greater settlement of the treated effluent greatly reducing the suspended solids carry over in the final effluent. This will also add to the condition of the final effluent quality discharging to the River Mahore.
- The provision of new sludge drying reed beds will allow for sludge to be wasted from the secondary treatment process. This will provide for a more efficient secondary treatment and enhance the quality of the final effluent. This will also add to the condition of the final effluent quality discharging to the River Mahore.
- The proposed upgrade works shall significantly reduce the number of sludge removal tankers to and from Hospital WWTP. The current sludge holding capacity is approximately 7 to 14 days, requiring regular tankers visit the site.
- The proposed upgrade works will increase the plants' ability to meet the emission conditions set out in the Wastewater Discharge Licence.

As part of the upgrade works at Hospital WwTP, a 1M diameter outfall pipe and headwall arrangement will be constructed to the north of the site, along a drainage ditch that outfalls to the River Mahore.

Following the implementation of the upgrade works, the operational phase of the WwTP will result in significant improvements in the treatment of effluent entering the River Mahore, which provides higher assimilative capacity within the River Mahore, and overall resulting in better water quality within the River Mahore,

5.3 Test 3 – Favourable Conservation Status

5.3.1 Conservation Status Assessment

Annex IV species must be maintained at Favourable Conservation Status or restored to favourable status if this is not the case at present. The net result of granting a derogation licence must be neutral or positive for the species in question.

An Otter holt was recorded along with various Otter signs (prints, couch, spraints) along the River Mahore, in close proximity to the existing outflow location. From the camera trap footage captured, it was concluded that the Otter hold identified along the bank of the River Mahore, in close proximity to the existing outfall pipe is an active non-breeding holt.

The Proposed Development Site is located approximately 10m south of the otter holt along the River Mahore. The Proposed outfall/headwall is located approximately 35m west of the otter holt, along an unmapped drainage ditch.

Channin P (2003)¹ provides a literary review with regard to anthropogenic disturbance and refers to several reports which have found that disturbance is not detrimental to Otters (Jefferies (1987), (Durbin, 1993), (Green & Green, 1997). The report also describes successful breeding in towns, under ferry terminals and under the jetties of one of Europe’s largest oil and gas terminals at Sullom Voe in North Scotland.

Irish Wildlife Manual No. 23 (National Otter Survey of Ireland 2004/2005) found no significant relationship between disturbance and otter occurrence. In addition, no significant difference in otter presence was found between sites with and without recreational activity. It also states, “the lowest percentage occurrence was found at the sites with the lowest recorded disturbance”. Irish Wildlife Manual No. 76 (National Otter Survey of Ireland 2010/2012) notes that the occurrence of Otter was unaffected by perceived levels of disturbance at the survey sites. It also notes that there is little published evidence demonstrating any consistent relationship between Otter occurrence and human disturbance (Mason & Macdonald 1986, Delibes et al. 1991; Bailey & Rochford, 2006).

The below listed mitigation measures will be in place to minimise the potential disturbance to otters. Provided that the works are carried out in accordance with the design, best practice and mitigation that is described within this report, significant effects on otters are not anticipated at any geographic scale. The local otter population will remain within Favourable Conservation Status.

5.3.2 Mitigation Measures

All works will be carried out in line with NRA’s *Guidelines for the treatment of otters prior to the construction of national road schemes (2009)*.

Based on the above review of scientific literature and given that the proposed construction works will be undertaken with mitigation according to NRA guidelines, no significant effect with regard to disturbance of otter is predicted.

- A preconstruction Otter survey will be carried out in advance of the commencement of any works, no more than 10-12 months prior to construction (NRA 2009). The monitoring period should include before and also during construction works, and extended, if necessary, based on the findings of the pre commencement survey. Works involving the site set up have commenced on the Site in December 2025. A preconstruction Otter survey has been carried out in November 2025 in advance of the commencement of any works, as described in Section 4.5 above and the on-going monitoring plan is in place.

- If the otter holt is determined to be a maternity holt prior to construction works commencing, all works will be halted and further consultation with the NPWS will be undertaken.
- No works will be undertaken within 5m or 10m of the otter holt-
- Prior to any invasive construction works commencing on the site, a 10m buffer/ exclusion zone composed of timber/ plywood hoarding fencing, lined with a sound dampener will be temporarily erected along the existing fencing to the north of the existing WwTP, adjacent to the embankment.
- This 10m exclusion zone marked by timber hoarding (along the base of the embankment) will facilitate the minimum area for construction works to be undertaken while preserving the vegetation where the holt is situated. This will prevent machinery access or damage to the existing bank and to minimise noise disturbance and to avoid disturbance related impacts to the local otter population.
- Fencing will be erected in accordance with Clause 303 of the NRA's Specification for Roadworks (National Roads Authority). Appropriate awareness of the purpose of the enclosure will be conveyed through notification to site staff and sufficient signage will be placed on each exclusion fence. All contractors or operators on site will be made fully aware of the procedures pertaining to each affected holt.
- No wheeled or tracked machinery will work within the 20m buffer surrounding the Otter holt.
- No artificial lighting will emanate onto the existing embankment and treeline to prevent light disturbance to otters. Construction staff will be made aware of the restrictions of working close to the riverbank and the hoarding will be made high enough to prevent unauthorised storage of construction spoil over and behind the hoarding.
- No water containing sediment or pollutants will be discharged directly from the construction areas onsite to the River Mahore, as this may impact local aquatic fauna on which the otter relies on for food.

6. **MONITORING THE IMPACTS OF THE DEROGATIONS**

Monitoring is proposed during and following the Proposed Development:

- A pre-commencement construction otter survey will be carried out by a suitably qualified Ecologist to assess the known holt location and to confirm that at the time of construction, the holt is still not being used as a natal holt. This will be carried out in advance of any potentially disturbing works at the proposed outfall headwall (no more than 10-12 months in advance of construction) to ensure that there will be sufficient time to allow actions to be undertaken to protect otter populations prior to the commencement of construction. A preconstruction Otter survey has been carried out in November 2025 in advance of the commencement of any works, as described in Section 4.5 above and the on-going monitoring plan is in place.
- If, during the pre-commencement otter survey, it is determined that the holt is being used as a natal holt at the time of construction, the NPWS will be notified and works within 150m of the holt will be stopped until further consultation with NPWS and further mitigation implemented, as required.
- An updated otter survey will be carried out by a suitably qualified ecologist during and post-construction, and further camera monitoring to inform the license return.