Inspector's Addendum Report ABP-317106-23

Development	Construction of 97 residential units and all ancillary site development works. The planning application is accompanied by a Natura Impact Statement
Location	Baunacloka , Raheen , Co. Limerick
Planning Authority	Limerick City and County Council
Planning Authority Reg. Ref.	22/841
Applicant(s)	Rockspring Developments Limited
Type of Application	Permission
Planning Authority Decision	Grant subject to conditions
Type of Appeal	Third Party v. Grant
Appellant(s)	Akhtar and Martine Khan The Grange Residents Association L. Reeves and C. Heeney and Others (Residents of The Grange) Tom Ryan

Observer(s)	Sarah Mulcahy
Date of Site Inspection	15 July 2024
Inspector	Cáit Ryan

1.0 Introduction

1.1. This is an addendum report to the Inspector's report in respect of ABP-317106-23 (dated 15 October 2024).

1.2. On 4 November 2024 the Board[1] decided to defer consideration of this case and to issue a Section 132 notice. On 8 November 2024 the following Section 132 notice was issued:

1. (a) You are required to submit detailed surface water management proposals for the proposed development, during both construction and operation phases, specifically referencing whether it is proposed to discharge surface water from the site via existing surface water drains to the Loughmore Canal.

(b) You are required to detail the nature and extent of the previous use of part of the subject site as a scrap yard and to detail any steps that have been taken to ascertain the extent of any potential contamination of the site arising from such previous use. You are also required to submit proposals for managing any potential site contamination arising from its previous use, to ensure that site works do not pose a risk to ground or surface waters.

(c) Having regard to the foregoing, you are required to submit a revised Natura Impact Statement specifically addressing surface water management proposals, during both construction and operation of the proposed development, including a schedule of all proposed mitigation measures, as well as appropriate plans and particulars detailing the nature and extent of these proposed mitigation measures.

2. Section 15.3.5 of the Limerick and County Development Plan 2022-2028 states that "A Supplementary Development Contribution Scheme applies to the R526 Link Road Phase 3 Mungret" in accordance with section 49 of the Planning and Development Act 2000 (as amended). You are required to clarify if the subject site is located within the area to which this Supplementary Development Contribution Scheme applies and to comment on the potential applicability of that scheme to the

[1] Subsequent to the issuing of the Section 132 notice, the applicant's response to same and further submissions and observations received, An Bord Pleanála (the Board) was re-named An Coimisiún Pleanála (the Commission). For clarity, the terms 'the Board' and 'the Commission' are used where appropriate in this report.

proposed development.

1.3. This Addendum report should be read in conjunction with the Inspector's Report dated 15 October 2024.

1.4. A Technical Note by Mr. Emmet Smyth, Inspectorate Scientist, dated 4 July 2025, is on file.

2.0 Response to the Board's Decision to Request Further Information

2.1. The applicant submitted a response to the Section 132 notice. Correspondence from the applicant dated 27 November 2024 was received by the Board on 28 November 2024. The applicant's submission comprises

- Cover letter
- Appropriate Assessment Screening and Natura Impact Statement Report; November 2024
- Soakaway Investigation
- Hydrogeological Site Investigation
- Letter from Limerick City and Couty Council (LCCC) regarding Supplementary Development Contribution Scheme (and email correspondence to/from LCCC relating to same)
- Cover letter from engineering consultants firm, SUDS Management Plan, Construction and Environment Plan* and various engineering drawings.

*I refer to the Construction and Environment Plan as a CEMP elsewhere in this report.

3.0 Responses to Further Submissions

3.1. Third party submission

3.1.1. A submission was received from Tom Ryan (third party appellant). The main issues raised are summarised as follows:

Timeframe/parity:

- Third party had 4 weeks to evaluate voluminous file. Timing and technical nature of correspondence ensure there is no time to engage technical advisors. Third party endeavours to raise concerns despite lack of parity.

LIHAF road/Loughmore Common:

- Developer's agent stresses scheme's importance as it involves significant portion of the LIHAF road. Cites consultant's report (on behalf of LCCC) Mungret Links Streets Project, Environmental Impact Assessment (May 2019) that transport link to south (R526) may be progressed in the future, but that due to sensitivity of receiving environment in general area (Loughmore Common) this requires comprehensive understanding of complex hydrological /hydrogeological functioning. These assessments have not taken place.
- Complex hydrological/hydrogeological issues and cumulative effects of groundwater of the road on stormwater are ignored. None of the reports mention Phase 3 link road. Permission cannot be given until road is assessed.

Groundwater pathway/Loughmore Canal:

- Applicant accepted that groundwater pathway from site is towards Loughmore Canal, is now proposing not to discharge storm water to Loughmore Canal and proposed engineering solutions with swales and slow discharge to ground from attenuation tank. This material alteration should have been advertised.
- Third party's commissioned report by international environmental consultancy and authored by a land contamination specialist is attached. Site is located in karst limestone area with highly sensitive sub-strata which cannot be used as a percolation area because the developer is trying to avoid discharging to Loughmore Canal. Developer and his agents know the Canal is a polluted waterbody and that connecting to it will stifle the development.

Contamination:

- LCCC's investigation into pollution of Loughmore Canal is entering fifth year.
- Attached commissioned report confirms contamination of Loughmore Canal

and its surrounds. Requests Board to consider this report.

Loughmore Canal, Limerick – Environmental Report (July 2024) incudes –

- Objectives of environmental monitoring is to evaluate potential impact on third party's property via discharge from Loughmore Canal. Scope of works is to assess water, sediment and soil conditions within and in the immediate vicinity of Barnakyle stream against baseline conditions to determine what impact, if any, has occurred.
- Loughmore Common is privately owned land.
- Loughmore Canal starts east of Loughmore Common and flows east to west for approx. 735m along its southern boundary. After passing through western boundary of common, canal turns south west, passes through fields for approx. 145m, after which it is culverted to pass under a garden and Caher road. After culverted section, it flows through fields for approx. 150m where it joins Barnakyle stream. This stream flows into Barnakyle River, which flows in Maigue Estuary. This estuary flows into Shannon Estuary.
- GSI layers for Public Supply Source Protection Areas or Group Scheme Preliminary Source Protection Areas are on Fig. 2, none of which are within 5km of the site or within Limerick City Southwest Groundwater Body. The nearest identified Source Protection Area, Coshma Group Water Scheme, is approx. 5.5km south west of the site (Section 2.6.9).
- Loughmore Canal is within BallyNaclogh_010 WFD river sub basin.
- No licensed waste facilities or closed landfills within Loughmore Common or near Loughmore Canal shown on EPA maps. 5no. Integrated Pollution Prevention and Control (IPPC) facilities are within Raheen Business Park.
- Raheen Car Dismantlers, approx. 114m east of Loughmore Common, would have to store used engine oil and fuel. Potential for spillages and leaks. Drain from Raheen Business Park passes underneath breakers yard; Fig. 1-1
- Loughmore Common turlough was identified in early 1970s as an area of special scientific interest, was identified as a candidate SAC and later

removed from final Natura 2000 list because of an appeal.

- Loughmore Canal is in pNHA. It feeds the Barnkyle River which is the main tributary of the larger Maigue Estuary, a SAC. Maigue river is a SPA.
- Barnakyle River and Maigue Estuary are protected under Water Framework Directive (WFD).
- There may have been historical spills of petroleum hydrocarbons, break fluids, lubricating oils or leaks from containers. (Section 3.1)
- 6 pathways and 6 receptors are outlined at Sections 3.2 and 3.3 respectively
- Concludes (Section 5.5) that samples analysed from Loughmore Common and upstream at Barnakyle Stream had generally lower concentrations for metals, PAH, VOCs and hydrocarbons in comparison to those taken at drain outflow at Raheen Business Park and nearby banks of Loughmore Canal. PAHs classed as Hazardous Substances were reported to be present in soil samples taken from canal bank. Water in the canal is in continuity with groundwater, via swallow hole and diffuse flow over length of the canal. There is potential for hazardous and non-hazardous substances present in the waters or sediments to enter groundwater via these hydrogeological connections. Aim of WFD is to prevent entry of hazardous substances into groundwater and reduce or limit entry of non-hazardous substances.
- Recommends further works required to understanding the potential sources of anthropogenic hazardous substances in the discharge into Loughmore canal.
    - A sampling plan should be developed to further understand the scale of impacted water, sediment and soil.
    - Continuous sampler (auto sampler) could be deployed to the outflow from the storm sewer into Loughmore Common and at strategic points in the drainage network from Raheen Business Park
    - Installation of groundwater monitoring wells at the site to determine the scale and nature of any potential impact to groundwater.

3.2. **Observer's Submission**

3.2.1. An observation was received from Sarah Mulcahy. Issues raised contain a number of the same issues as the third party submission outlined above, and also includes a copy of Loughmore Canal, Limerick – Environmental Report (July 2024). Other does issues raised are summarised as follows:

- Development is premature based on the need for LIHAF road. LCCC confirmed they are on design phase for Phase 3, and they had plans to engage with this developer for a pumping station to be included to facilitate the LIHAF road. This road intends to be drained to Loughmore Canal.
- Developer has an active application for additional units to this development.
- According to attached report, hazardous substances are discharged directly to groundwater due to unique geology of the outfall.
- LCCC report (Mungret Links Street Project – EIA, 20 May 2019) states that pre- and post-development scenarios for all Raheen in 1 in 100 year return period durations result in spill from the canal northwards onto the common.
- Development Plan Objective EH015 is to protect ground and surface water resources.
- Site incorporates Fentons Scrap Yard/Raheen Car Dismantlers, where there is a stormwater connection to Loughmore Canal. It is not shown that there will be 100% no connection to the Canal. Attached report confirms land contamination in the environs with hazardous substances.
- Loughmore Common pNHA is a short distance of proposed development. LCCC website mentions Loughmore Common under biodiversity.
- Cites Development Plan Objective IN O12(d) and (h) and Objective O15(a), and that it states there are several areas of historic groundwater flooding in Mungret. One is pNHA, borders land zoned New Residential and it will be important that proposals include adequate assessment of groundwater risks.
- LCCC have not completed Catchment Management Plan for north of Loughmore Common nor included this Common and Loughmore Canal in flood relief schemes and capacity audits despite commitment in 2022.

- Flood relief maps have been updated on OPW website. Site is higher than the Common and observer's lands. Downward gradient is a factor for flooding.

4.0 Assessment

4.1. This Addendum report assesses the 2no. items requested in the Section 132 notice, and also outlines as other issues the following:

- Other Issue – Notice of Amendment
- Other Issue – Planning History/Current Planning Application
- Other Issue – Development Plan

4.2. **Item 1(a) – Detailed surface water management proposals**

4.2.1. The Board requested the following pursuant to Item 1(a) -

1. (a) You are required to submit detailed surface water management proposals for the proposed development, during both construction and operation phases, specifically referencing whether it is proposed to discharge surface water from the site via existing surface water drains to the Loughmore Canal.

4.2.2. The submission of 28 November 2024 states there will be no stormwater discharge to Loughmore Canal during the operational and construction phases. The surface water management proposals at both operation and construction phases are further discussed below.

Operational phase:

4.2.3. The applicant intends to deal with stormwater on site with a series of SUDs initiatives including –

- Attenuation/retention infiltration tank designed to both attenuate and dispose of stormwater
- Swales in green areas provide for both collection and disposal of road runoff
- Permeable paving provided storage and disposal

- Tree pits provide storage and disposal
- Water butts provide for recycling of rainwater
- Green/blue roofs to apartment buildings

4.2.4. Engineering drawings lodged include Drawing No. 20-050-212 (SuDS Details Sheet 1 of 2) and Drawing No. 20-050-213 (SuDS Details).

4.2.5. 2no. drawings titled Proposed Drainage Layout have been submitted; Drawing No.s 20-050-224 (dated 20 Nov. 2024) and 20-050-204 (dated 18/07/2022) refer. Both drawings show that the 2no. apartment blocks have a sedum roof.

4.2.6. In terms of detail, I draw the Commission's attention to the detailing of the plans and particulars submitted on 29 November 2024, whereby the engineering layout drawings do not show any delineation been soft and hard landscaping at the location of the 2no. apartment blocks.

4.2.7. The SuDS Management Plan (November 2024) is indicated to relate to 'Residential Fentons Yard Raheen'. The report's stated aims are to provide an accessible summary of current techniques and considerations at both the design and post-construction stages for the effective maintenance of SuDS. Notwithstanding that the report refers (at Section 2.6) to the separate appended independent percolation testing report, I do not consider that this is a site-specific SuDS Management Plan.

4.2.8. The revised plans and particulars refer to the proposed provision of an attenuation tank and a soakaway. I consider that there is a lack of clarity on file regarding the provision of this drainage infrastructure, which is discussed further below.

<u>Proposed Drainage Layout and Attenuation tank:</u>

4.2.9. Drawing No. 20-050-2024 (20 Nov. 2024) shows a 360m² attenuation tank comprising effective volume 684m³ (2m deep @ 95% voids) located in the open space area, near the proposed swale. The swale runs diagonally through most of the open space area. Given its location, the provision of the swale would potentially impact on active play on this principal amenity space. The matter of impacts of the swale on the open space is discussed in the original Inspector's Report at Section 7.5. A large number of tree pits are shown throughout the site.

4.2.10. This proposed drainage layout shows the nearest storm sewer manhole (S12) approx. 60m north east of the eastern end of Loughmore Canal, i.e., no discharge to the canal is shown on this drawing. For clarity, an existing storm sewer is shown to partially traverse part of the former scrap yard site, i.e., lands outlined in blue, and this sewer continues to Loughmore Canal. This sewer is not shown to be within or connected to the delineated subject site. As outlined in the original Inspector's report, the canal is not a waterbody identified by the EPA.

4.2.11. In terms of detail, and for comparative purposes, I note that the size of the attenuation tank in the lodged application was 356m³. This was subsequently increased in the FI drainage layout to 475m³. The 684m³ attenuation tank now proposed is therefore an increase of 209m³ over that shown in the FI response.

4.2.12. I note that the revised NIS states (at Section 3.2.1 and Section 5.5.3) that the surface water management strategy includes a 500sqm attenuation tank comprising 950m³. However, given that the attenuation tank is annotated as 360sqm on the separate drainage layout, and also approximates to 360sqm as measured from plan, the 500sqm (950m³ capacity) specified in the revised NIS has not been demonstrated to be consistent with the detail shown on the separate drainage layout.

4.2.13. While I note this discrepancy on the plans and particulars lodged on 28 November 2024 with regard to the size of the attenuation tank, I consider that given the revised drainage drawing annotates the attenuation tank at 360sqm, I consider that the 684m³ capacity tank may be taken as the more definitive proposal.

4.2.14. In terms of detail, I note that the location of the proposed soakaway is not shown on the revised drainage layout. I consider that the omission of same on the revised drawings is significant, given the importance of the provision of a soakaway as part of the overall surface water management proposals on the subject site. The matter of soakaway provision is discussed further in the following section.

4.2.15. On the basis of the revised drainage layout, I consider that the provision of the 684m³ capacity attenuation tank would, in principle, be generally acceptable. However, as outlined in further detail under Section 4.3 of this report, I am not satisfied on the basis of the information on file that it has been adequately demonstrated as to whether there would be any hydrological, hydrogeological or

other impacts (either by way of surface water or groundwater) from the proposed development on the proposed pNHA Loughmore Common Turlough.

4.2.16. While I consider that the provision of the attention tank would generally be acceptable in principle, I am not satisfied that the potential impacts resulting from the proposed development on the turlough have been adequately demonstrated. As such I do not consider that surface water management proposals for the proposed development have been adequately detailed in this regard.

Soakaway

4.2.17. The submitted Soakaway Investigation outlines that the infiltration drainage system disposes of storm water by providing detention storage during a storm and allowing water to infiltrate into underlying soil or rock. It states trial hole tests were carried out on 26 November 2024 to Soakaway Design Digest 365, no mottling was evident and the water table was not encountered. Sides of trenches are stated to have collapsed at a depth of 2.04m in trial hole 1. Results of 2no. trial hole tests are stated as:

- Trial hole 1: soil infiltration rate: 6.59×10^{-5} m/s
- Trial hole 2: soil infiltration rate: 1.12×10^{-4} m/s

It states the slower infiltration rate should be chosen for design and calculation purposes.

4.2.18. The cover letter from an engineering consultants firm states the independent soakaway investigation has established a value for the site at 237mm/hr, and that in the Flow calculations a conservative 100mm/hr is used to account for any variations across the site giving a safety factor of 2.37.

4.2.19. Separately, the engineering consultant's document relating to Network: Storm Network 1 with regard to Node 14: Soakaway Storage Structure states a Safety Factor 2. It outlines soakaway dimensions of 30mW x 12mL x 2mD. This would result in a 360sqm area, i.e., same area annotated for the attenuation tank.

4.2.20. Drawing titled SUDS Details Sheet 1 of 2 (Drawing No. 20-050-212) includes Typical Aquacell Details – Not to Scale. Dimensions for this infrastructure are not annotated, and it is not specified as to which structure this relates.

4.2.21. I note that neither of the 2no. revised Proposed Drainage Layout drawings show the location of any soakaways. Based on the information outlined in the Soakaway Investigation and Network: Storm Network 1 documents, it would appear that a 'Soakaway Storage Structure' is proposed, as distinct from an attenuation tank.

4.2.22. The Soakaway Investigation outlines with regard to the soil properties of the site (based on GSI mapviewer and EPA mapviewer) that the Till is derived chiefly from limestone, deep well drained mineral (Mainly basic), the groundwater vulnerability site is High and has a Locally Important Aquifer. I further note (as viewed on www.gsi.ie) that groundwater subsoil permeability is Moderate. At Loughmore Canal a short distance to the west, groundwater vulnerability categories are (1) X: rock at or near surface or karst and (2) H: High.

4.2.23. In terms of detail, the slower infiltration rate is 6.59 x 10^{-5} m/s. The Technical Note on file states that use of 237mm/hr correlates to the slower of the soil infiltration value. It outlines that it would be deemed acceptable given that the site is located within an area of well drained limestone tills but with a poorer drained component to the west of the site. It outlines that the information submitted in response to Item 1(a) is adequate to demonstrate that the soil material at the site can adequately deal with the generated surface waters from the proposed development.

4.2.24. Having regard to the information contained in the Site Investigation Report submitted in response to the Section 132 notice, and to all information on file, I am satisfied that the information submitted is acceptable to demonstrate that the soil material at the site can adequately deal with the surface water generated by the proposed development at operation phase.

4.2.25. I consider that the revised surface water management proposals submitted comprising chiefly of a range of SUDS measures and an attenuation tank, and whereby no stormwater discharge to Loughmore Canal is proposed, would be acceptable in principle. I note the revised plans and particulars submitted include section drawings of these SUDS features. However, I consider that there would appear to be an inconsistency, whereby both an attenuation tank and a soakaway are referenced, although no soakaway location is shown on the revised drainage layout. Notwithstanding that the soakaway is one element only of the overall surface

water management strategy, I consider that it is a critical element given that the strategy indicates that there would be no discharge to Loughmore Canal.

4.2.26. Furthermore, notwithstanding the adequacy of soil material at the subject site to deal with surface water generated by the proposed development as outlined above, I note the matter raised in the Technical Note with regard to the absence of information to adequately ascertain if there would be any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on pNHA Loughmore Commons Turlough. This matter is further discussed under Item 1(b).

Construction phase:

4.2.27. The cover letter from the consultant engineering firm states that the CEMP makes provision for a bund to isolate the site from the canal and silt fences to deal with fugitive surface water emissions, effectively isolating the site from any discharge to the Loughmore Canal during construction phase.

4.2.28. In terms of detail, the CEMP refers (at Section 3.7) to R497 Borrisokane Road. Given that the R497 extends from Dolla, Co. Tipperary northwards to Nenagh (as viewed on www.tailte.ie), I note that reference to this road would appear to be in error. However, it is considered that this error does not materially impact on the assessment of the surface water management proposals for the proposed development during construction phase.

4.2.29. In addition to the CEMP, I consider it relevant to draw the Commission's attention to the submitted Hydrogeological Site Investigation (November 2024). Section 6.1 concludes that the subsoil and groundwater beneath the site have not been impacted by the site's former scrap yard use, the site's closest surface water feature is the canal that takes drainage from nearby Raheen Industrial Estate, which discharges to Loughmore Commons Turlough, and there is no associated risk posed to the turlough. However, I do not consider that the basis on which the canal discharges to the turlough has been set out, and based on all information on file, I consider that it has not been adequately demonstrated that site works do not pose a risk to ground or surface waters.

4.2.30. As discussed further at Section 4.3 of this report, I am not satisfied, given the

absence of information, that the plans and particulars lodged with this application, as amended by FI received and as amended by the applicant's response dated 28 November 2024 are sufficient to adequately ascertain if there would be any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on pNHA Loughmore Commons Turlough. In brief, I am not satisfied that it has been demonstrated that the proposed development would not give rise to adverse impacts on pNHA Loughmore Commons Turlough, and as discussed at Section 4.3, refusal of permission is recommended on this basis.

4.2.31. Notwithstanding this recommendation for refusal, for completeness, I also outline below a range of matters relating to the CEMP.

4.2.32. The CEMP does not include any mapping/plans to show the location of a site compound. It describes (at Section 3.6) the site compound/welfare facilities, and states that the compound will be located within the site boundary and positioned to ensure that deliveries, staff parking and visiting vehicles do not wait on the public road before entering insofar as is practicable. The compound location will be confirmed by the main contractor before proceeding if required. Section 5 states *inter alia* that the compound will be designed and located to minimise the risk of contamination to the underlying and surface water environment. In the event that the Commission was minded to grant permission, it may wish to consider the attachment of a condition requiring compound location details to be submitted for written agreement prior to commencement of development, as part of a site-specific CEMP.

4.2.33. It states (at Section 3.1) that the site will not discharge run-off to the canal and during construction will be isolated from the canal by earthwork berms. While it states that run-off into excavations/earthworks cannot be prevented entirely, it further states that all run-off will be prevented from directly entering any excavations. Although there would appear to be some inconsistency with regard to run-off entering into excavations, it outlines also that there may be localised pumping of surface run-off from excavations during and after heavy rainfall.

4.2.34. It recommends (at Section 6.2) that stockpiled and any construction demolition waste generated during works be removed to permitted waste management facilities, and

oil interceptors be de-sludged, decommissioned and sent to an authorised waste management facility. It states (at Section 3.2) that silt fencing will be installed, the location of which will be determined in the construction stage CEMP. In the event the Commission was minded to grant permission, it is considered that this detail could form part of a detailed site-specific CEMP.

4.2.35. I consider that the much of the information outlined in the submitted CEMP generally comprises of standard construction measures. However, an Environmental Manager/Ecological Clerk of Works (ECow) is proposed to supervise mitigation measures. Notwithstanding that some matters such as site compound and silt fence detailing could be addressed in a more detailed site specific CEMP prior to commencement, I consider however that the broader matter of any potential hydrological, hydrogeological or other impacts from the proposed development, either by way of surface water or groundwater, on the pNHA have not been adequately demonstrated.

4.3. Item 1(b) - Previous use of part of the site and potential contamination

4.3.1. The Board requested the following pursuant to Item 1(b):

(b) You are required to detail the nature and extent of the previous use of part of the subject site as a scrap yard and to detail any steps that have been taken to ascertain the extent of any potential contamination of the site arising from such previous use. You are also required to submit proposals for managing any potential site contamination arising from its previous use, to ensure that site works do not pose a risk to ground or surface waters.

Nature and extent of previous use of part of subject site as a scrap yard

4.3.2. The submitted Hydrogeological Site Investigation (November 2024) shows the site to which it relates outlined in red; Fig. 2.2 refers. This area outlined comprises the scrap yard area and a large fire-damaged building, the eastern part of which is stated to have been removed. The area in the vicinity of this building does not form part of the subject appeal site, but is within the blue line boundary.

4.3.3. The report outlines that the same firm previously completed a site investigation in 2010 as part of a Waste Permit application for the operation of an End of Life (ELV)

facility in 2012. I note that Appendix 1 comprises Hydrogeological Site Investigation – January 2011.

4.3.4. The Hydrogeological Site Investigation report outlines that use of the site as a scrap yard began in the 1980s which continued until 2002, and there was no activity on site between 2002 and 2012. There are no records of any historical incidents that could give rise to potential soil or groundwater contamination. Between 2012 and 2022 an End of Life Vehicle (ELV) facility, subject of a Waste Permit, operated on site, in addition to a tyre centre, repair garage and car valeting service. The business was discontinued following a fire in the main building in 2022.

Loughmore Canal

4.3.5. It notes (at Section 2.3 Topography & Surface Water Drainage) that there are no natural surface water courses surrounding the site and that a surface water drainage canal located approx. 100m to the west receives run-off from Raheen Industrial Estate. This drain is culverted beneath the R526 and the site before discharging to the canal. Apart from the turlough, the closest surface water features comprising field drains are approx. 1km to west. These drains discharge to Barnakyle River approx. 2.5km to west and flow north to Shannon Estuary. It outlines that the canal runs through Loughmore Commons, an area of bogland to west of the site, and discharges to Loughmore Commons Turlough. However, it does not appear to be demonstrated as to where/how the canal discharges to the turlough.

4.3.6. In contrast, I note the document titled Loughmore Canal, Limerick – Environmental Report (July 2024), appended to both the third party's and the observer's separate submissions, outlines the route of the canal, summarised at Section 3.0 of this report. In brief, it states that after canal passes through the common's western boundary, it turns south west and passes through fields for approx. 145m, after which it is culverted to pass under a garden and Caher road. After culverted section, it flows through fields for approx. 150m where it joins Barnakyle stream.

4.3.7. Notwithstanding that the applicant's response to the Section 132 notice states that there would be no stormwater discharge to Loughmore Canal during the operational and construction phases, I note that there would appear to be an inconsistency in the details of where the canal discharges to, given the content of the applicant's

Hydrogeological Site Investigation and the report appended to the submissions received separately from the third party and observer, in response to the applicant's submission on the Section 132 notice.

4.3.8. Furthermore, I note the Technical Note outlines that turloughs fill primarily by inflows of groundwater via conduits and springs and by the input of some surface water runoff. Accordingly, based on all information on file, I do not consider that the basis for the canal to discharge to the turlough has been sufficiently outlined in the Hydrogeological Site Investigation.

Previous Use

4.3.9. The report outlines that on site inspection (14 November 2024) a number of old empty shipping containers, derelict portokabins and concrete blocks were noted, and a number of depolluted ELVs were located in the south east of the site. The depollution area was in the large fire-damaged building. All surface water collected from the paved areas of the site was channelled to a full retention oil water interceptor that was installed to the north west of the building in 2012. This interceptor took water from the concrete immediately around the former depolluting area, then passed to a second interceptor in the east of the site prior to discharging to a soakaway in the north of the area. No evidence of contamination was observed in the vicinity of the interceptor. It outlines that at time of inspection there was no visual evidence of staining on the ground surface in any portion of the site.

4.3.10. I note that the previous uses on site are also stated to have comprised a tyre centre, repair garage and car valeting service, and that the owner decided to discontinue the business following a fire in the main building in 2022. In terms of detail, the location of these individual previous uses on the site (as per site area delineated in Fig. 2.2) is not shown, and it is therefore unclear as to whether such uses were located within the red line boundary of the subject appeal site or within the blue line boundary only. However, notwithstanding this, based on the area delineated on Fig. 2.2 and the information outlined at Sections 2.1 to 2.4 inclusive, I consider that the information set out in the Hydrogeological Site Investigation is sufficient to detail the nature and extent of the previous use of the site as a scrap yard.

Steps taken to ascertain extent of any potential contamination arising from

previous use

4.3.11. The assessment outlined below relating to whether steps taken to ascertain the extent of any potential contamination arising from previous use of the site as a scrap yard largely follows the sequence set out in the submitted Hydrogeological Site Investigation, namely Geology and Hydrogeology, Groundwater Assessment, Soil Assessment and Environmental Risk Assessment. Key issues in the 4no. Assessments are outlined in the following section -

Geology and Hydrogeology

4.3.12. The report outlines (at Section 2.5.1 Soils and Subsoil) that the soils are classified as basic mineral deep well drained and the subsoils are Limestone till. 10no. trial pits (TP01 to TP10) were excavated across the site to assess for the presence of any subsoil contamination associated with the former ELV activities. The subsurface is composed of Made Ground underlain by Natural Ground. No staining or odours were noted in the Natural Ground.

4.3.13. With regard to hydrogeology the following is stated (at Section 2.6)

- bedrock aquifer beneath the site is characterised (by GSI) as a Locally Important Aquifer, which is generally moderately productive
- it is expected that groundwater from the site will flow toward and into Loughmore Commons Turlough located 150m to west
- the closest recorded well site is approx. 670m to north east

Groundwater Assessment

4.3.14. The Groundwater Assessment sets out that 2no. monitoring wells (MW-1 and MW-2) were installed in the bedrock along the western down hydraulic gradient boundary in the November 2010 site investigation. Both wells were down-gradient of the former ELV activities. MW-2 could not be sampled during the 2024 investigation due to a blockage. A groundwater sample taken from MW-1 on 14 November 2024 was analysed for a range of parameters derived from Limerick County Council site investigation guidelines and the site's historical use as a scrap yard.

- Methodologies used by the laboratory were ISO/CEN approved or equivalent

and the method detection limits (MDL) were all below relevant limits and comparative guidance values.

- None of the parameters analysed exceeded EPA's Interim Guideline Values (IGV) or Groundwater Threshold Values (GTV) in European Communities Environmental Objectives (Groundwater) Regulations (S.I. 9 of 2010).
- Previous use has not impacted on quality of groundwater beneath the site.

Soil Assessment

4.3.15. It is stated (at Section 4.1) that 10no. trial pits were excavated on 14 November 2010. In contrast, the Trial Pit Logs (Appendix 6) states the excavation date as 14 November 2024. The reference to the November 2010 trial pit excavation date would appear to be in error. However, I do not consider that this erroneous reference materially impacts on the assessment of the subject appeal.

4.3.16. The soil assessment outlines

- Soil samples were screened for volatile organic compounds (VOCs) using a photo ionisation detector (PID). No evidence of contamination was detected.
- As there no was field evidence of contamination, a composite map was taken of the subsoils from the base of the gravel fill to 0.5m below the top of the clay in each trial pit. The samples were analysed for a range of contaminants including heavy metals, Aliphatic and aromatic Hydrocarbons and Benzene.
- Results for all samples were well below the LQM/CIEH S4UL (Suitable for Use Levels)[2] developed in the UK, and that the metals results are indicative of unpolluted agricultural soils. Laboratory Results (for Soil and other matters) are in Appendix 5, and the results are presented in Table 4.1 – 4.3.

Environmental Risk Assessment

4.3.17. It is outlined (at Section 5)

- Based on 2010 site investigation, soils range in thickness from 2.9m in the south to 5.8m in the north. Subsoils are of moderate permeability and rainfall

[2] Land Quality Management (LQM)/Chartered Institute of Environmental Health (CIEH)

percolating through same will preferentially flow vertically to underlying aquifer.

- With regard to surface water pathway, when in operation all runoff from the concrete paved areas used to store depolluted vehicles passed through an oil water interceptor prior to discharge to the soakaway in the north of the site.
- With regard to groundwater pathway, water from concrete vehicle storage areas is diverted to ground via stormwater soakaway. Vehicles were depolluted indoors prior to storage outdoors. Water from concrete areas adjacent to the building passed through 2no. interceptors prior to discharge to soakaway.
- Groundwater monitoring results for MW-1 down gradient of the interceptors indicate that the groundwater quality in the bedrock aquifer is good.
- There are no groundwater users within 500m. Water supply locally comes from Uisce Éireann mains water supply.
- The Risk Assessment concludes that the subsoils and groundwater have not been impacted by the past use of the site.

Overall Assessment

4.3.18. The Technical Note notes that the applicant undertook soil analysis excavating 12 trial pits all the way to bedrock which appeared to be typical of karst limestone and based on the description of the bedrock it would appear to be epikarst which is highly irregular and fractured. Field evidence pointed to no contamination of the soils, samples were further analysed for VOCs, petrol range organics, diesel range organics, benzene, toluene, ethylbenzene, Xylene and PAHs. It notes that overall the returned results would appear to indicate that previous activities on the site have not impacted on the soil quality at the subject site. Some elevated results for nickel and copper fall well within the ranges expected to be observed in Irish soils. It considers that submitted report has demonstrated that the previous activities on site have not impacted on the underlying soils and groundwaters.

4.3.19. I note that vehicles were depolluted indoors prior to external storage. Having regard to the content of the Hydrogeological Site Investigation, test results submitted relating to groundwater, soils and subsoils and the Risk Assessment conclusion, namely that subsoils and groundwater have not been impacted by the past use of

the site, I am satisfied that the applicant has adequately demonstrated the extent of any potential contamination of the site arising from the previous uses of part of the site as a scrap yard and ELV facility.

4.3.20. For completeness, as outlined under the previous assessment of 'Nature and extent of previous use of part of subject site as a scrap yard', I have noted that the location of some previous uses is not shown on Fig. 2.2. However, notwithstanding this, based on the test results submitted, I am satisfied that the steps taken to ascertain the extent of any potential contamination arising from previous use has been adequately addressed.

Proposals for managing any potential site contamination arising from previous use, to ensure that site works do not pose a risk to ground or surface waters

4.3.21. The Hydrogeological Site Investigation report concludes that the subsoil and groundwater beneath the site have not been impacted by former use of the site as a scrap yard, and as no contamination has been identified in soils or groundwater beneath the site there is no associated risk posed to Loughmore Commons Turlough. It recommends that

- Stockpiled construction demolition waste and any generated during demolition works be removed to appropriately permitted waste management facilities.
- The oil interceptors should be de-sludged, decommissioned and sent to an authorised waste management facility.

4.3.22. With regard to this submitted report's recommended removal of stockpiled construction demolition waste, I note that some of this waste is outside the red line boundary of the appeal site, although it is within the blue line boundary. In terms of detail, I note that the subject appeal case does not propose demolition of buildings. However, I consider the removal of waste arising from the proposed development to approved waste management facilities to be a standard construction practice.

4.3.23. The CEMP states (at Section 3.12) that a site-specific Resource and Waste Management Plan (RWMP) has been prepared, and (at Section 4.11.3) that arrangements for all waste materials to be delivered to an appropriately licenced or permitted waste facility. There does not appear to be any RWMP on file. In the event

the Commission was minded to grant, it may wish to consider the attachment of a condition requiring the submission of a detailed site-specific CEMP and a site-specific RWMP. However, it is outlined elsewhere in this section that it has not been adequately ascertained if there would be any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on pNHA Loughmore Commons Turlough, and that refusal of permission is recommended on this basis.

4.3.24. With regard to the recommendation to de-sludge, decommission and send waste from the oil interceptors to an authorised waste management facility, I note that 1no. interceptor is shown north of the fire-damaged building, at its western end on a partial, non-scaled drawing at (non-paginated) page 19 of the submitted report. This oil interceptor is located outside the red line boundary of the appeal site, but is within the blue line boundary. For completeness, while it is stated (at Section 2.4) that water from this interceptor then passed to a second interceptor in the east of the site prior to discharging to a soakaway in the north, no other oil interceptors nor soakaways are shown on this drawing. 2no. storm interceptors are shown on this drawing near the eastern boundary. While the Hydrogeological Site Investigation does not appear to show the location of any oil interceptors within the appeal site, in the event the Commission was minded to grant permission for the proposed development, it may wish to consider the attachment of a condition requiring de-sludging and decommissioning of any redundant oil interceptors, and removal of any such waste from the appeal site, where relevant.

4.3.25. I note that Item 1(b) sought *inter alia* proposals for managing any potential site contamination arising from its previous use, to ensure that site works do not pose a risk to ground or surface waters.

4.3.26. The Hydrogeological Site Investigation report concludes that no contamination has been identified in the soils or groundwaters beneath the site and consequently there will be no risk to the turlough.

4.3.27. The Technical Note states that overall the report has demonstrated that previous activities on this site have not impacted on the underlying soils and groundwaters, but it neglects to address potential for impacts from the proposed development on

pNHA Loughmore Commons Turlough. It notes that during trial pitting the applicant referenced undulating and very broken rock that would be typical of karst. This could be epikarst and can have a bearing on the rate and quantity of recharge entering the locally important aquifer underlying the site. Typically depths of where epikarst is found range between 3m-10m below ground which would appear to correlate with the depths to rock on site. This rock is often highly irregular and fractured with a high level of permeability due to chemical solution occurring within this zone. These fractures tend to reduce with depth giving way to largely un-weathered rock below with diminishing permeabilities with increasing depth. This leads to a conclusion that the connectivity between epikarst and water table can be sporadic at best. Given that permeability decreases with depth recharge to the aquifer is limited. The GSI mapped the recharge coefficient for the site as a limestone till and a cut peat with recharge coefficients of 60% and 10% respectively. Given proximity of cut peat to the site, it is reasonable to assume that the mapping may not be as accurate at the site scale and this poorer draining component may form part of the site. It acknowledges that given the subsoil conditions there may be negligible impact on the condition of groundwaters. However, the potential for the impact on the dynamic of groundwater flow through the site has not been addressed with particular regard to conservation of the pNHA Loughmore Common Turlough. Any impact on surface water from the proposed development has not been assessed in the submitted report. It concentrates on demonstrating the conditions of soils and groundwaters underlying the site after its previous activities on site, but it does not develop this further to adequately ascertain if there would be any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on pNHA Loughmore Commons Turlough.

4.3.28. In addition to the matters outlined above, I note also that the Hydrogeological Site Investigation states that Loughmore Common Turlough is located 150m to west. This separation distance does not however appear to be annotated in this document. I note that the size of the site outlined in red in Fig. 2.2 (site layout) of the Hydrological Site Investigation is much smaller than the overall subject site, and also incorporates a very minor area (such as the fire damaged building) which does not form part of the application site. Based on measurements on the www.tailte.ie online mapping, I

estimate that pNHA Loughmore Common Turlough is approx. 75m west of the 'Fig. 2.2' site at its nearest point, i.e., approx. 75m from the scrap yard part of the overall application site. In this regard therefore I consider that the scrap yard area, and the western boundary of the overall site are much closer to pNHA Loughmore Common Turlough than the 150m distance stated in the Hydrogeological Site Investigation.

4.3.29. In addition, I draw the Commission's attention to the DAU report on file, discussed at Section 7.6 of the original Inspector's report. The DAU report states that there is no assessment of potential impacts on Loughmore Common Turlough pNHA.

4.3.30. For completeness, in terms of potential impacts of the proposed development on surface and groundwaters, I draw the Commission's attention to the wider context of the subject site. The site and adjoining lands at Mungret are zoned New Residential in the operative Development Plan, which would itself have been subject to SEA. The future provision of the Stage 3 LIHAF road to west of the subject site would approximately bound or be in very close proximity to pNHA Loughmore Common to its west. The planning authority's website www.limerick.ie (accessed on 21 August 2025) outlines that the Stage 3 LIHAF road is at preliminary design. I note therefore that the immediate environs of the subject site are anticipated to be significantly altered.

4.3.31. Having regard to all information on file, including that received by the Commission on 28 November 2024, the further submission and observation received pursuant to same, I consider that the information received relating to the previous use and potential contamination on site arising from such uses has been adequately addressed. However, notwithstanding the anticipated changes to the subject site's environs, and while noting also that the Technical Note outlines that given the subsoil conditions there may be a negligible impact on the groundwater conditions, I am not satisfied that it has been demonstrated on the basis of all information on file that there would not be any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, at construction and operational phases, on pNHA Loughmore Commons Turlough. Refusal of permission is recommended on this basis.

4.3.32. It is recommended that Reason 2 of the original Inspector's report is amended to

include *inter alia* reference to the information submitted by the applicant pursuant to the Section 132 notice, namely the information submitted on 28 November 2024. The revised Reason 2 is set out at Section 6.0.

4.4. **Request Item 1(c)**

4.4.1. The Board requested the following pursuant to Item 1(c):

(c) Having regard to the foregoing, you are required to submit a revised Natura Impact Statement specifically addressing surface water management proposals, during both construction and operation of the proposed development, including a schedule of all proposed mitigation measures, as well as appropriate plans and particulars detailing the nature and extent of these proposed mitigation measures.

4.4.2. The revised NIS is dated November 2024. Having regard to the information submitted in response to Items 1(a), (b) and (c), I have carried out AA Screening, as set out in Appendix 2.

4.4.3. The **Screening Determination** set out at Appendix 2 outlines finding of likely significant effects as follows:
In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the applicant, I conclude that the proposed development could result in significant effects on the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA in view of the conservation objectives of a number of qualifying interest features of those sites.
It is therefore determined that Appropriate Assessment (Stage 2) [under Section 177V of the Planning and Development Act 2000, as amended] of the proposed development is required.

4.4.4. I have carried out Appropriate Assessment, as set out in Appendix 2.

4.4.5. **Appropriate Assessment Conclusion: Integrity Test**

In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on Lower River Shannon

SAC (002165) and River Shannon and River Fergus Estuaries SPA (004077) in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of S177U was required.

Following an examination, analysis and evaluation of the NIS, all associated material submitted with the application, as amended by Significant Further Information and as amended by the plans and particulars submitted to the Board on 28 November 2024 in response to the Section 132 notice, I consider that adverse effects on site integrity of the Lower River Shannon SAC and River Shannon and River Fergus SPA cannot be excluded in view of the conservation objectives of these sites and that reasonable scientific doubt remains as to the absence of such effects.

My conclusion is based on the following:

- Nature and scale of the proposed development and its proximity to a turlough and canal
- Lack of adequate detailing relating to any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on the turlough, and any consequent impacts on the canal and the Barnakyle and Maigue river systems
- Lack of adequate detailing relating to use, or not, of the appeal site by wintering birds
- An assessment of all aspects of the proposed project based on the information on file including proposed mitigation measures and monitoring in relation to the conservation objectives of the aforementioned designated sites

4.4.6. Accordingly, given that the Appropriate Assessment conclusion is that it has not been demonstrated that the proposed development alone would not adversely affect the integrity of European sites, the Lower River Shannon SAC (Site Code 002165) and River Shannon and River Fergus Estuaries SPA (Site Code 004077) in view of the sites' conservation objectives, it is recommended that that in such circumstances, the Commission is precluded from granting permission. Refusal of permission is recommended on this basis.

4.4.7. It is recommended that Reason 1 of the original Inspector's report is amended to include *inter alia* reference to the information submitted by the applicant pursuant to the Section 132 notice, namely the information submitted on 28 November 2024. The revised Reason 1 is set out at Section 6.0.

4.5. Supplementary Development Contribution Scheme

4.5.1. The Board requested the following pursuant to Item 2:

Section 15.3.5 of the Limerick and County Development Plan 2022-2028 states that "A Supplementary Development Contribution Scheme applies to the R526 Link Road Phase 3 Mungret" in accordance with section 49 of the Planning and Development Act 2000 (as amended). You are required to clarify if the subject site is located within the area to which this Supplementary Development Contribution Scheme applies and to comment on the potential applicability of that scheme to the proposed development.

4.5.2. LCCC's letter to the applicant dated 25 November 2024 confirms that the proposed development falls within the area subject to the Supplementary Development Contribution Scheme for the R562 Link Road (Phase 3) and refers to the attached map. The attached map is Mungret Supplementary Development Contribution Scheme. The area to which the Section 49 supplementary contribution scheme applies is outlined in red. I note that the appeal site is located within the lands outlined in red on the LCCC mapping.

4.5.3. Accordingly, in the event that the Commission was minded to grant permission, I consider that it would be appropriate in this case to include a condition requiring the payment of levies in accordance with the Supplementary Development Contribution Scheme (DCS) for the R526 Link Road (Phase 3).

4.6. Other Issue - Notice of Amendments

4.6.1. Concerns raised in the third party submission received on the applicant's response to the Section 132 notice include that the revised proposal should have been re-advertised. I note that the overall surface water management proposals shown on the plans and particulars lodged in response to the Section 132 notice differ from

those outlined in the lodged application, as amended by Further Information.

4.6.2. The applicant's response to the Section 132 notice was circulated by the Board on 10 December 2024 and the parties were invited to respond to same by 8 January 2025. While noting the extent of this timeframe, I note also that the parties were notified, and in this regard consider that there has been adequate notice.

4.7. Other Issues – Planning History/Current Planning Applications

Current Planning Application: P.A. Ref. 24/61115

4.7.1. The observation received following the applicant's response to the Section 132 notice states the developer has an active application for additional units to this development.

4.7.2. I have viewed the planning authority's online planning search. P.A. Ref. 24/61115 currently seeks permission for 58no. apartments in 2no. 5-storey blocks, change of use and renovation of Loughmore House, a protected structure (RPS Ref. 1672) to a community building, demolition of fire damaged workshop, removal of concrete apron and ancillary drainage, demolition of sheds, construction of pumping station with pumped rising main connection to existing infrastructure at Raheen roundabout, and all associated infrastructure. Application is accompanied by NIS.

4.7.3. The P.A. Ref. 24/61115 application partially overlaps with the current appeal site. Further Information was requested by the planning authority on 13 January 2025.

4.7.4. While I note that this planning application was lodged to the local authority on 11 November 2024, I do not consider that the lodgement of this subsequent planning application is a material consideration in the assessment of the subject appeal.

Recent Planning History: P.A. Ref. 24/60010 (ABP-319328):

4.7.5. The original Inspector's Report refers to the above-referenced case as currently under appeal. This proposal relating to a nursing home, which included an NIS, and located in close proximity to the subject site, was granted by the Board in 2025.

4.8. Other Issue – Development Plan

4.8.1. In terms of detail, I draw to the Commission's attention that the Inspector's report dated 15 October 2024 erroneously refers to Limerick City and County Development

Plan 2022-2028, in lieu of Limerick Development Plan 2022-2028.

5.0 Recommendation

Refusal of permission for 4no. Reasons is recommended. Refusal Reasons 1 and 2 of the original Inspector's report are amended as outlined in the following Section 6.0.

6.0 Reasons and Considerations

1. Based on the information provided with the application and appeal, including the plans, particulars and revised Natura Impact Statement received on 28 November 2024, the Commission is not satisfied that the proposed development alone would not adversely affect the integrity of European sites, the Lower River Shannon SAC (Site Code 002165) and River Shannon and River Fergus Estuaries SPA (Site Code 004077) in view of the sites' conservation objectives. In such circumstances, the Commission is precluded from granting permission. This conclusion is based on the lack of certainty regarding any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on the nearby turlough (pNHA Loughmore Commons Turlough) and thereby any consequent impacts on Loughmore Canal and the Barnakyle and Maigue river systems, which discharge to European sites. In addition, this conclusion is also based on the lack of certainty regarding the use of the appeal site by Qualifying Interests of the River Shannon and River Fergus Estuaries SPA (Site Code 004077) and any potential consequent disturbance effects to same, such that reasonable doubt remains as to the actual effects of the proposed development on the conservation objectives and site integrity of the protected sites and species.

2. The proposed development is located in very close proximity to Loughmore Common Turlough (Site Code 000438), a proposed Natural Heritage Area (pNHA). Having regard to all information on file, including information received

on 28 November 2024, the Commission is not satisfied that it has been adequately demonstrated that the proposed development would not result in any hydrological, hydrogeological or other impacts on Loughmore Common Turlough pNHA, either by way of surface water or groundwater. The proposed development would not, therefore, comply with Section 3.4.3.8 of the Limerick Development Plan 2022-2028 which states *inter alia* that the Mungret Framework will have cognisance of the environmental assets in the area including Loughmore Common pNHA. The proposed development would, therefore, be contrary to the current Development Plan and to the proper planning and sustainable development of the area.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Cáit Ryan
Senior Planning Inspector

01 September 2025

Appendix 2 – Appropriate Assessment

Introduction

The Board's Section 132 notice sought the following (Item 1(c)):

(c) Having regard to the foregoing, you are required to submit a revised Natura Impact Statement specifically addressing surface water management proposals, during both construction and operation of the proposed development, including a schedule of all proposed mitigation measures, as well as appropriate plans and particulars detailing the nature and extent of these proposed mitigation measures.

I have completed AA Screening, outlined below, having regard to the information submitted in response to Items 1(a), (b) and (c).

Appropriate Assessment Screening

Screening for Appropriate Assessment **Test for Likely Significant Effects**	
Step 1: Description of the project and local site characteristics **Case file: ABP-317106-23**	
Brief description of project	Construction of 97no. residential units comprising houses and apartments, crèche and pumping station, and all ancillary site development works. The planning application is accompanied by a Natura Impact Statement. Note: Number of proposed residential units reduced to 96 in Significant Further Information (FI) response. The site area has been increased to 2.86ha in the FI response, from 2.78ha originally proposed.

Brief description of development site characteristics and potential impact mechanisms	The site is located on the R526 on the southwestern approach to Limerick city, approx. 5km from city centre, and south east of Dooradoyle. Raheen Business Park is located opposite. It is a backland site, with approx. 20m roadside frontage. The FI site plan shows an approx. 1946sqm area within the site located near the northern site boundary, which does not form part of the subject site. The site is bounded along its roadside frontage by a motor sales premises, to rear of which is a large, partially demolished fire-damaged warehouse. The main part of the site is accessed via an approx. 100m long route, north west of which is a roughly rectangular-shaped brownfield site, where there is a small number of dilapidated vehicles, other scrap material and some heaps of spoil/other material. No commercial activity was evident in the 'scrapyard' area on date of site visit. There is an area of dense planting between the brownfield area and the remaining greenfield part of the site. The site is bounded: • Near its R526 roadside frontage and along its more southerly part to north east by a greenfield site; • Along northern part of its north eastern boundary by The Grange, a housing estate; • to north and west by the remainder of the field of which the site forms a part. There are mature hedgerows along the north eastern site boundary and along the northern and western boundaries of the field of which the site forms a part. The site is generally level but rises slightly in the western half. Lands west of the site boundary slope gradually downwards to a hedgerow at the field boundary. The revised AA Screening and NIS Report (Nov. 2024) outlines - • Parts of the site can be described as 'Improved Agricultural Grassland' (GA1), 'Buildings and Artificial Surfaces' (BL3), 'Treelines/Hedgerow mosaics' (WL2/WL1), and 'Scrub' (WS1). • No protected species were recorded on site. • No plant species growing on site are listed as

	alien invasive species under Schedule 3 of SI No. 477 of 2011. • Several drainage ditches transverse the site which may form a tenuous link via surface water runoff to Ballynaclogh River, which eventually joins the Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA. Water and wastewater will be connected to local services, and a pumping station is proposed. Loughmore Canal is approx. 52m west of the site. No surface water discharge to this canal is proposed at construction or operation stages. Surface water management proposals comprise a range of SUDS measures and a soakaway. A 360sqm attenuation tank is shown on revised drainage layout. Loughmore Common Turlough pNHA is approx. 27m to west. This does not fall within scope of AA.
Screening report	Yes (Prepared by Ash Ecology & Environmental). Revised screening report is dated November 2024
Natura Impact Statement	Yes (Prepared by Ash Ecology & Environmental). Revised NIS is dated November 2024

Relevant submissions

Prescribed bodies

There are no submissions from prescribed bodies on the revised NIS. For completeness, the submissions on file from Development Applications Unit (DAU) of Department of Housing, Local Government and Heritage (DHLGH) and from Uisce Éireann/Irish Water are outlined below.

- DAU, DHLGH: A submission was received on 28 March 2023, i.e., subsequent to the planning authority's receipt of Further Information (FI) on the application. The DAU submission does not comment on Natura 2000 sites or species, and refers primarily to Loughmore Common Turlough pNHA (000438). This DAU submission is discussed in Section 7.6 of the original Inspector's report.

- Uisce Éireann/Irish Water: Report dated 20 August 2022 received on the original application states no objection subject to standard observations. It also states that Limerick City and County Council/Irish Water require certification from an engineering company with minimum €2m professional

indemnity insurance on completion stating that works relating to surface and foul water sewers and water mains have been completed to good engineering practice and in accordance with planning permission. An engineer's chartered certificate will be required at taking in charge stage.

Submissions/Observations

1no. third party submission and 1no. observation have been received in response to the applicant's submission received on 28 November 2024.

- Submission from Tom Ryan
  - Complex hydrological/hydrogeological issues and cumulative effects of groundwater of future LIHAF road

Attached commissioned report Loughmore Canal, Limerick – Environmental Report (July 2024) states

- Objectives of environmental monitoring is to evaluate potential impact on third party's property via discharge from Loughmore Canal.
- Raheen Car Dismantlers, approx. 114m east of Loughmore Common, would have to store used engine oil and fuel. Potential for spillages and leaks.
- Loughmore Common Turlough was identified in early 1970s as area of special scientific interest, was identified as candidate SAC and removed from final Natura 2000 list due to appeal.
- Loughmore Canal is in pNHA. It feeds Barnakyle River, the main tributary of the larger Maigue Estuary, a SAC. Maigue river is a SPA.
- Barnakyle River and Maigue Estuary are protected under Water Framework Directive (WFD).
- Concludes that samples analysed from Loughmore Common and upstream at Barnakyle Stream had generally lower concentrations for metals, PAH, VOCs and hydrocarbons in comparison to those taken at outflow of drain at Raheen Business Park and nearby banks of Loughmore Canal.
  Recommends –
  - further works required to understand potential sources of anthropogenic hazardous substances in the discharge into Loughmore canal.
  - Sampling plan to understand scale of impacted water, sediment and soil.
  - Continuous sampler could be deployed to outflow from storm sewer into Loughmore Common and at strategic point in drainage network from Raheen Business Park.
  - Installation of groundwater monitoring wells to determine scale and nature of any potential impact to groundwater.

- Observation from Sarah Mulcahy

The observation includes a copy of Loughmore Canal, Limerick – Environmental Report (July 2024). Other issues raised include -

- Site includes Fentons Scrap Yard/Raheen Car Dismantlers. There is a stormwater connection to Loughmore Canal in this yard. It is not shown there will be 100% no connection to Loughmore Canal.

- Refers to Development Plan Objective IN O12(d) and (h) and Objective EH

O15(a)

Step 2: Identification of relevant European sites using the source-pathway-receptor model

2no. European sites are potentially with a zone of influence of the proposed development. I note the (Nov. 2024) Screening Report considered a further three sites in a wider area but these can be ruled out on further examination due to distance and lack of/weak ecological connections. I am satisfied that these sites can be excluded from further consideration.

The revised AA Screening Report sets out potential pathways to European sites. I discuss these and other matters below under **Commentary**.

European Site (Code)	Qualifying interests Link to conservation objectives	Distance from proposed development	Ecological connections	Consider further in screening Y/N
Lower River Shannon SAC (002165)	Estuarine habitats, saltmarsh habitats, coastal habitats, alluvial forests. Freshwater Pearl Mussel, Sea Lamprey, Brook Lamprey, River Lamprey, Salmon, Common Bottlenose Dolphin and Otter. NPWS (2012): Site_specific_cons_obj S.I. No. 328 of 2023: S.I. No. 328/2023 - European Union Habitats (Lower River Shannon Special Area of Conservation 002165) Regulations 2023	Approx. 2.3km to north east	Indirect via potential hydrological pathway due to potential hydrological and/or hydrogeological impacts on turlough to west resulting from the proposed development, and via Loughmore Canal and Barnakyle Stream, Barnakyle River, Maigue River and Shannon Estuary.	Y
	21no. wintering	Approx.	Potential ex-	

River Shannon and River Fergus Estuaries SPA (004077) *S.I. No. 329 of 2019	birds. Cormorant, Whooper Swan, Light-bellied Brent Goose, Shelduck, Wigeon, Teal, Pintail, Shoveler, Scaup, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank and Black-headed Gull NPWS 2012: Site_specific_cons_obj	2.4km to north	situ impacts on QIs.	Y
* S.I. No. 329 of 2019 lists 21no. species as outlined above. *Classification of Special Protection Area* outlines under Article 3(3) that particular attention shall be paid to the protection of the wetlands in the area identified in Schedules 1 and 2. Schedule 1 is a map of the SPA. Schedule 2 is description of area classified as a SPA. I highlight the above matter for the Commission's information, given that it contrasts with the NPWS Conservation Objectives document for SPA 004077 (2012). For completeness, the 2012 NPWS document lists A999 Wetlands as a Qualifying Interest (QI), of which it is an objective to maintain the favourable conservation status. It notes that the wetland habitat area was estimated as 32,261ha using OSi data and relevant orthophotographs. QI 'A999 Wetlands' is not included in the more recent S.I. No. 329 of 2019.				
Askeaton Fen Complex SAC (002279) S.I. No. 617 of 2017	Calcareous fens, Alkaline fens NPWS 2018: ConservationObjectives.rdl	Approx. 12km to west	N	N Screened out due to distance and lack of hydrologic al connection

				s
Tory Hill SAC (000439) S.I. No. 297 of 2016	Semi-natural dry grasslands and scrubland facies on calcareous substrates, Calcareous fens, Alkaline fens.	8.9km to south	N	N Screen out due to distance and lack of hydrologic al connection s
Curraghchas e Woods SAC (000174) S.I. No. 209 of 2019	Alluvial forests, *Taxus baccata* woods. Desmoulin's Whorl Snail, Lesser Horseshoe Bat NPWS 2023: CO000174.pdf	13.4km to west	N	N Screened out due to distance and lack of hydrologic al connection .

Commentary

- In terms of detail, the attenuation tank is stated to be 360sqm on the drainage layout, and approximates to 360sqm as measured from plan. The reference to a 500sqm attenuation tank of 950m³ capacity (Section 3.2.1 in revised AA Screening and NIS) is inconsistent with detail shown on revised drainage layout. The matter of attenuation tank and soakaway structure are discussed in the main report in the response to Item 1(a).

- The submitted Screening report sets out different potential hydrological pathways from the subject site to Lower River Shannon SAC (002165), discussed below -

Ballynaclogh River

The revised AA Screening report states (at Section 3.3) that a review of potential impact pathways for QIs of both European sites focuses on the possible hydrological connection via Ballynaclogh River. It states (at Table 2) a potential pathway for surface water connectivity with the SAC exists via drainage ditches which connect into Derryknockane Stream and ultimately Ballynaclogh River.

However, I note www.catchments.ie shows Ballynaclogh River is at least 2km east of the subject site. BALLYNACLOGH_010 is located east of Raheen Business Park and Dooradoyle, and also east of the M20 (Limerick to Patrickswell motorway) along part of its course.

BALLYNACLOGH_010 (IE_SH_24B040800) flows into Limerick Dock, a

transitional waterbody. Limerick Dock thereafter flows into Upper Shannon Estuary, also a transitional waterbody.

Limerick Dock (IE_SH_060_0900) flows into the Lower River Shannon SAC in the vicinity of Limerick Greyhound Stadium.

The Screening report states (at Section 3.4) -

- WFD water quality monitoring data (2016-2021) indicates BALLYNACLOGH_010 currently has 'Moderate' status and is under 'Review'
- Transitional waters of Limerick Dock are classified as 'Poor' and 'At Risk'. Additional surface water run-off generated during construction and operational phases has potential to affect water quality in the receiving watercourses and subsequently the European sites. Potential water quality impacts are therefore screened in.

The report states that the lower reaches of the Ballynaclogh River lie within the Lower River Shannon SAC.

However, based on the information viewed on www.catchments.ie, I consider that a potential hydrological or other ecological pathway from the subject site to BALLYNACLOGH_010 have not been adequately demonstrated.

I consider that the applicant's approach that potential impacts on the Lower River Shannon SAC via Ballynaclogh River should be screened in represents an abundance of caution. Having regard to the substantial terrestrial buffer which includes a built-up urban area and M20 motorway between the subject site and this waterbody, and distance of the subject site to same, I consider that any potential impacts from the proposed development on this European site via Ballynaclogh River can be screened out.

Derryknockane Stream, Rootiagh and Barnakyle River

I note that www.catchments.ie outlines the EPA names for BARNAKYLE_020 (IE_SH_24B050600) are

- At the upper reaches of this waterbody: Derryknockane
- Along/in the vicinity of the south eastern boundary of Raheen Industrial Estate and M20 motorway: Rootiagh

While www.catchments.ie mapping shows BARNAKYLE_020 and BALLYNACLOGH_010 proximate to each other, these waterbodies are not shown to be directly connected. In this regard I highlight that Derryknockane Stream is not shown to discharge to BALLYNACLOGH_010.

The original Inspector's report notes (at Section 10.1.22) www.catchments.ie mapping shows Derryknockane Stream is a tributary of Barnakyle River, which drains to River Maigue and the Upper Shannon Estuary.

BALLYNACLOGH_010 and BARNAKYLE_020 are both shown in Fig. 8 of the revised Screening report.

Derryknockane is (very faintly) referenced at BARNAKYLE_020 a distance east of the subject site. The route of Derryknockane Stream appears to be through established housing estates. It does not appear to be stated in the revised Screening report as to whether the upper reaches of this watercourse have been culverted. Notwithstanding this, I consider the 1.2km distance between the subject site and Derryknockane Stream to be a considerable terrestrial buffer.
This indicated tenuous link would, in my opinion, be an abundance of caution in the AA screening process. Having regard to this separation distance and the built-up area between the site and this stream, I consider this potential hydrological link whereby surface water from the proposed development would enter BARNAKYLE_020 to be very weak.

I consider that in the unlikely event of surface water run-off from the proposed development connecting to Derryknockane Stream, any run-off would then be diluted by approx. 11km of intervening water (estimated from www.catchments.ie) prior to reaching Lower River Shannon SAC (002165) at the lower reaches of Barnakyle River, and subsequently by the considerable volume of flowing water into the estuary including from the Maigue River which Barnakyle River joins.

I consider that potential indirect effects from surface water run-off from the site via this indirect hydrological pathway on Lower River Shannon SAC (002165) can be screened out.

Step 3: Describe the likely effects of the project (if any, alone or in combination) on European sites

The proposed development will not result in any direct effects on either the Lower River Shannon SAC or the River Shannon and River Fergus SPA. However due to the nature and scale of the proposed development and its proximity to the nearby turlough and to Loughmore Canal, and to any potential impacts on the turlough, I consider that impacts generated by the construction and operation of the proposed development require consideration. Sources of impact and likely significant effects are detailed in the Table below.

Screening matrix

Site name	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
Lower River Shannon SAC (002165)	Impacts	Effects
Indirect impact to SAC.	Release of silt and sediment	Potential disturbance risks to the 3no. lamprey

	during site works. Release of construction related compounds including hydrocarbons to surface water. See also Impacts - Note 1	species and salmon. The NPWS site synopsis states that the 3no. lamprey species and salmon have all been observed spawning in the lower Shannon or its tributaries. See also Notes 2, 3 and 4.

Impacts

Note 1:

The revised AA Screening report outlines (at Section 3.1) the surface water management strategy and states that during construction and operational phases, there will be no discharge to Loughmore Canal. During construction the site will be physically isolated from the canal using earthwork berms.

The Screening report does not set out an analysis of any potential hydrological connection to Barnakyle River west of the subject site.

I note that at operational stage, the revised proposed drainage layout (Drawing No. 20-050-224) shows the nearest storm sewer manhole (S12) approx. 60m north east of the eastern end of Loughmore Canal, i.e., no discharge to Loughmore Canal is shown on this drawing. As outlined at Section 4.3 of the main report, an existing storm sewer is shown to partially traverse part of the former scrap yard site (lands outlined in blue), and this sewer continues to Loughmore Canal. This existing sewer is not shown to be within or connected to the subject site.
(This proposed drainage layout therefore differs from that previously proposed on FI Drawing No. 20-050-204, which is discussed at Section 7.5.2 of the original Inspector's Report).

The separate Hydrogeological Site Investigation (Nov. 2024) states (at Section 6.1) that the site's closest surface water feature is the canal that takes drainage from nearby Raheen Industrial Estate, which discharges to Loughmore Commons Turlough, and there is no associated risk posed to the turlough.

However, I do not consider that it has been clearly demonstrated how/where the canal discharges to the turlough.

I note that the internal Technical Note states that the information submitted is adequate to demonstrate that the soil material at the site can adequately deal with the generated surface waters from the proposed development. However, it also outlines, with reference to the Hydrogeological Site Investigation, that the direction of groundwater flow in the area has not been definitively established. It further states that while there may be a negligible impact on the condition of groundwaters from the proposed development, the potential for the impact on the dynamic of groundwater flow through the site has not been addressed with particular regard to conservation of the turlough, and that it has not been adequately ascertained if there would be any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on the turlough.

As previously outlined, I note that the revised AA Screening report states that there would be no discharge to Loughmore Canal at either construction or operational phase. However, having regard to all information on file, and in noting the absence of information relating to potential hydrological, hydrogeological or other impacts, either by way of surface or groundwater, from the proposed development on the turlough, I consider that it has not been adequately demonstrated that there would be no consequent impacts on the canal.

I consider that in the event of, for example, any degraded water resulting from the proposed development entering Loughmore Canal, that any such water would be diluted by the intervening water prior to reaching the Lower River Shannon SAC (002165) at the lower reaches of the Barnakyle River, and subsequently by the considerable volume of flowing water into the estuary including from the Maigue River which Barnkyle River joins.

I note that the canal is not a waterbody identified by the EPA. However, notwithstanding this, and notwithstanding the substantial dilution that would occur, I consider that in the absence of information relating to the impacts on the turlough outlined above, that potential indirect effects via this indirect hydrological pathway on Lower River Shannon SAC (002165) cannot be screened out.

Effects

Note 2: Freshwater pearl mussel (FPM)

Lower River Shannon SAC (002165) includes Freshwater Pearl Mussel (*Margaritifera margaritifera*) (FPM) of which the conservation objective is to restore. The NPWS site synopsis outlines that FPM, a species on Annex II of E.U. Habitats Directive, occurs abundantly in parts of Cloon River. This population is confined to the main channel, distributed from Croany Bridge to

approx. 1.5km upstream of Clonderlaw Bridge. I note this river is in Co. Clare, and the Clonderlaw area is minimum 40km west of the site on opposite side of the Shannon estuary. Having regard to the separation distance and to dilution effects of this substantial waterbody, I consider that the proposed development would not give rise to any impacts on FMP in Cloon River, and that potential impacts on FPM can be screened out.

Note 3:
Otter

Otter (Lutra lutra) is a qualifying interest for Lower River Shannon SAC (002165). Table 2 states no evidence of Otter was recorded on site, there is limited suitable habitat, drainage ditches could potentially be used for occasional commuting, and the approx. 2.3km distance to SAC means direct disturbance impacts are unlikely as construction works will be localised and temporary.

I note that European Otter is listed in Appendix C (Protected Species in 10km Grid Square R55 (NDBC Website), and date of last record is stated as 2018. In contrast, I note however that www.biodiversity.ie (accessed on 28 August 2025) states the date of last record is 2023 (namely 17 January 2023).
The nearest waterbody is the canal a short distance to west. While otter was recorded in 2023 on R55, this relates to a 10km grid square.
NPWS conservation objective Notes state that with regard to extent of freshwater (river) habitat, river length calculated on the basis that otters will utilise freshwater habitats from estuary to headwaters. Associated Map 17 shows otter 250m commuting buffer, which extends upriver of River Maigue, in vicinity of Adare. Barnakyle River is a tributary of River Maigue. Otter commuting is not shown on Barnakyle River. This would suggest that the otters do not extend onto the subject site. The subject site is approx. 6.5km east of River Maigue (as the crow flies).
Having regard to the distance of the subject site to the otter commuting areas shown on Map 17 of NPWS Conservation Objectives (for 002165), I consider that the proposed development would not result in disturbance impacts on otter, and as such that potential impacts on otter can be screened out.

Note 4:
Invasive Species

Screening report states (at Section 3.4)

- while no invasive species listed on Third Schedule of European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) were recorded within site during ecological surveys, potential exists for invasive species to be introduced during construction which could spread to European sites via the surface water network.
- Invasive species threats in the region include Japanese Knotweed (Fallopia japonica) and Himalayan Balsam (Imaptiens glandulifera). Potential introduction and spread is screened in.

I note that no evidence of invasive species on the site has been presented. The CEMP states measures to prevent inadvertent spread of same includes species survey to establish the extent, if any, of invasive plant species present within the

site, and if identified, prepare an Invasive Alien Species (IAS) Management Plan. Areas of invasive species will be fenced off, signage installed and invasive species will be managed (aiming for eradication) prior to vegetation clearance. However, I consider that the measures outlined in the CEMP are standard construction practices, that matters relating to invasive species are subject to a separate legal code namely European Communities (Birds and Natural Habitats) Regulations 2011, and are clearly not included as a measure to mitigate potential impacts on European sites. In reaching this conclusion, I have taken no account of mitigation measures intended to avoid or reduce the potentially harming effects of the project on any European sites. I consider that potential spread of spread of invasive species does not require further consideration.

	Likelihood of significant effects from proposed development (alone): **Yes**	
	If no, is there a likelihood of significant effects occurring in combination with other plans or projects?	
River Shannon and River Fergus Estuaries SPA (004077)	**Impacts**	**Effects**
Indirect impact on SPA.	As above for SAC. *Disturbance impacts *See Note 5	A decline in water quality could effect ex-situ species – Wintering birds. Potential ex-situ disturbance effects.

Note 5:
Disturbance effects
The applicant outlines that the subject site's approx. 2.5km distance to River Shannon and River Fergus Estuaries SPA means that no direct disturbance to qualifying interest species within these sites will occur. Construction-related disturbance effects typically attenuate to background levels within 300m for birds, and given the substantial separation distance, disturbance impacts are screened out.

I note the late September timing for the field survey, during which no birds (QIs of the SPA), mostly wintering species, were recorded. Having regard to the timeframe for the site visit, and all information on file, I consider that potential ex-situ disturbance impacts of the SPA should be screened in.	
	Likelihood of significant effects from proposed development (alone): **Yes**
	If no, is there a likelihood of significant effects occurring in combination with other plans or projects?

Step 4 Conclude if the proposed development could result in likely significant effects on a European site

Based on the information provided in the screening report, site visit, review of the conservation objectives and supporting documents, I consider that in the absence of mitigation measures beyond best practice construction methods, the proposed development has the potential to result in significant effects on the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA.

I concur with the applicants' findings that there could be a significant impact in terms of the stated conservation objectives of the SAC and SPA when considered on their own in relation to potential water quality impacts on QI species. However, as outlined previously, I do not concur that the presented indirect potential hydrological pathways are the relevant pathways.

Screening Determination

Finding of likely significant effects

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the applicant, I conclude that the proposed development could result in significant effects on the Lower River Shannon SAC and the River Shannon and River Fergus SPA in view of the conservation objectives of a number of qualifying interest features of those sites.

It is therefore determined that Appropriate Assessment (Stage 2) [under Section 177V of the Planning and Development Act 2000, as amended] of the proposed development is required.

Appropriate Assessment

The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177V of the Planning and Development Act 2000 (as amended) are considered fully in this section.

Note: The NIS dated November 2024 subject of this assessment was received by the Board on 28 November 2024, in response to the following Section 132 notice:

Item 1(c): **Having regard to the foregoing, you are required to submit a revised Natura Impact Statement specifically addressing surface water management proposals, during both construction and operation of the proposed development, including a schedule of all proposed mitigation measures, as well as appropriate plans and particulars detailing the nature and extent of these proposed mitigation measures.**

Taking account of the preceding screening determination the following is an appropriate assessment of the implications of the proposed development of 97no. dwelling units (as amended to 96no. units by Significant Further Information) and crèche in view of the relevant conservation objectives of the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA based on scientific information provided by the applicant.

The information relied upon includes the following:

- Natura Impact Statement prepared by Ash Ecology & Environmental Ltd.

I am not satisfied that the information provided is adequate to allow for Appropriate Assessment. I am not satisfied that all aspects of the project which could result in significant effects are considered and assessed in the NIS and mitigation measures designed to avoid or reduce any adverse effects on site integrity are included and assessed for effectiveness.
These matters are set out in the following section.

Brief Overview of Revised NIS (Appropriate Assessment Screening Report and Natura Impact Statement Report, November 2024) – Commentary

Potential Hydrological Pathways
The matter of potential hydrological pathways to the 2no. European sites has been outlined previously above in the AA Screening. In brief, I do not concur that (1) Ballynaclogh River and (2) Derryknockane Stream, Rootiagh and Barnakyle River are relevant potential hydrological pathways to the European sites in the subject case.

In addition, as discussed in the main Addendum Report, the potential for the impact on the dynamic of groundwater flow through the site has not been

addressed with particular regard to conservation of the nearby turlough. It has not been adequately ascertained if there would be any hydrological, hydrogeological or other impacts from the proposed development on the turlough. Given the absence of information in this regard, I consider that impacts of the proposed development on the turlough (Loughmore Turlough pNHA) and on Loughmore Canal, if any, have not been adequately demonstrated, and any consequent potential hydrological connections via the canal to the Barnakyle and Maigue river systems and to the Shannon Estuary, and thereby to the Lower River Shannon SAC and River Shannon and River Fergus SPA have not been adequately demonstrated.

Photographs

It is outlined (at Section 2.2) with regard to field-based studies that habitats were identified and classified according to Fossitt (2000) and Smith *et al* (2011) on 29 September 2024. It outlines that a series of photographic plates are attached in Appendix B. I note that these Plates 1-6 inclusive in Appendix B are the same as those contained in Appendix A of the original (July 2022) NIS. As such, no updated photographs have been submitted in the revised NIS.

Appendix C - Protected Species in 10km Grid Square R55 (NBDC Website)

The Report's table of contents refers to R55 as 10km grid square. No associated mapping is on file. There is therefore a lack of clarity on file as to the geographic area to which grid square R55 relates. I note however that this information can be viewed on the NDBC website www.biodiversity.ie.

Appendix C is not up to date, based on information viewed on www.biodiversityireland.ie (accessed on 22 August 2025). For example, the dates of last record of various species, which are QIs of River Shannon and River Fergus Estuaries SPA, supersede the information set out in Appendix C. This is summarised below:

***Species**	**Date of last record (as per NDBC online search on 22 August 2025)**	**Date of last record in Appendix C**
Eurasian Teal (Anas crecca)	2020	2017
Eurasian Wigeon (Anas Penelope)	2018	2016
Great Cormorant (Phalacrocorax carbo)	2024*	2016
Northern Lapwing (Vanellus Vanellus)	2018	2013
Shoveler (Anas clypeata)	2018	2017
Ringed Plover (Charadrius hiaticula)	2021	2011
Whooper Swan (Cygnus cygnus)	2021	2011

*The date of last record is stated as 10 December 2024. This date is subsequent to the applicant's response to the Section 132 notice.

**Some names in Appendix C differs from S.I. No. 329 of 2019, and accordingly Latin name refers. Attenuation Tank: The revised AA Screening states (at Section 3.2.1) that a 500sqm attenuation tank with 950m³ capacity is proposed. This is inconsistent with the 360sqm area stated on the revised drainage layout, comprising effective volume 684m³.

Lower River Shannon SAC (002165)

Summary of key issues that could give rise to adverse effects (from screening stage):

(i) Water quality degradation (construction and operation)

Qualifying Interest features likely to be affected	**Conservation Objectives** **Targets and Attributes** **(Favourable conservation condition)**	**Potential Adverse effects**	**Mitigation measures (summary)** **NIS Section 5.5**
1095 Sea Lamprey *Petromyzon marinus*	Restore	Water quality degradation would undermine conservation objectives.	During construction site contamination control comprising soil management protocol including regular testing of excavated materials, dedicated stockpiling areas and dust suppression to prevent mobilisation of contaminants. Root protection zones to be protected. CEMP, monitoring by Environmental Manager of water quality control measures.

			At operational phase, SuDS features and attenuation tank proposed. Monitoring of SuDS performance, including quarterly inspections.
*1*096 Brook Lamprey *Lampetra planeri*	Maintain	Water quality degradation would undermine conservation objectives.	As above.
1099 River Lamprey *Lampetra fluviatilis*	Maintain	Water quality degradation would undermine conservation objectives.	As above.
1106 Salmon *Salmo sala*r	Restore	Water quality degradation would undermine conservation objectives.	As above.
Other QIs			
1110 Sandbanks which are slightly covered by sea water all the time 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1150 Coastal lagoons* 1160 Large shallow inlets and bays 1170 Reefs 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	Not at risk	Rationale for exclusion: Outside zone of influence/no pathway/substantial dilution effects due to volume of water.	

1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)* 1029 Freshwater Pearl Mussel *Margaritifera margaritifera* 1349 Common Bottlenose Dolphin *Tursiops truncatus* 1355 Otter *Lutra lutra*		

Assessment of issues that could give rise to adverse effects:

(i) Water quality degradation

Decrease in water quality would comprise conservation objectives for the 3no. lamprey species and salmon. Increased sedimentation could alter habitat quality for spawning grounds. The NPWS site synopsis states that the 3no. lamprey species and salmon have all been observed spawning in the lower Shannon or its tributaries, and there are few other river systems in Ireland which contain all three species of lamprey.
No discharge to Loughmore Canal during construction or operation is proposed.
Water quality degradation is the main risk from unmanaged site works.
A soakaway is proposed at operation phase, albeit not shown on drainage drawings. Soakaway Investigation Report indicates that infiltration rates are acceptable.

Mitigation measures
The focus of mitigation measures proposed are at preventing ingress of pollutants and silt into watercourses, specifically Loughmore Canal. This is to be achieved via design (avoidance), supervision by Environmental Manager (or Ecological Clerk of Works as outlined in CEMP), application of specific measures and monitoring effectiveness of measures. Detail is provided in Section 5.5 of the NIS on sediment control and concrete control.
The NIS states emergency response procedures have been developed to address incidents such as fuel spills or extreme weather events, and include communication chains, containment measures and notification protocols for relevant authorities. Save for reference to contact numbers for relevant agencies being displayed within the site compound, detailed measures do not appear to be set out in the NIS. The separate CEMP states (at Section 3.2.1.5 Accidental Spills and Leaks) the risk of oil/fuel spillages will exist on site, such incidents will require an emergency response procedure, and all contractors will carry spill kit materials in their site cabins. Extreme Weather Events is set out at Section 2.2.7 of the CEMP.
Other measures outlined in the NIS include:

- No vegetation clearance to occur during bird nesting season unless surveyed and cleared by a qualified
- Contractor's soil management protocol to include regular testing of excavated materials, dedicated stockpiling area, dust suppression to prevent mobilisation of contaminants, and proper handling of contaminated soils.
- Surface and groundwater protection measures including temporary drainage channels arounds excavations and use of settlement tanks for dewatering. Surface water management to follow protocols in CEMP, including perimeter silt fencing.
- Delineation of construction footprint with fencing and construction compounds and material storage areas confined to hardstanding areas.
- At operational phase a bypass petrol interceptor will treat runoff from trafficked areas before entering main drainage system. SuDS network has been designed to accommodate 1:100 year storm events.

I note the content of Section 5.5 of the NIS which references some content of the CEMP, and I also note Section 5.6 (Conclusion of Natura Impact Assessment) of the NIS. Item 1(c) of the Section 132 notice requested a schedule of all proposed mitigation measures.

The NIS states (at Section 5.3 Assessment of Likely Significant Effects) that the development may modify local hydrology through alterations to existing drainage networks, changes to groundwater recharge patterns from new impermeable surfaces, and modified surface water flow paths. It outlines that these changes could potentially affect the hydrological regime supporting downstream habitats within the European sites, though the proposed drainage design incorporates measures to maintain natural flow patterns. However, while noting this content of

the NIS, I do not consider that the proposed development's potential to modify local hydrology is adequately demonstrated in the NIS.

It is stated that operational monitoring will focus on the SuDS system performance, including quarterly inspections of attenuation tanks, swales and interceptors, and that a detailed maintenance schedule ensures long-term effectiveness of drainage infrastructure, with specific responsibilities assigned to the site management team. The composition of the site management team does not appear to be stated in the NIS. I note that Conditions 11 and 15 of the planning authority's decision require –

- Condition 11(iii): Taking in charge map to be submitted and agreed
- Condition 15: Management and maintenance of the 2no. apartment buildings to be the responsibility of a legally constituted management company, and management scheme shall be agreed.

Having regard to the information on file and to the planning authority's conditions requiring separate taking in charge details and management scheme details to be submitted and agreed, it would therefore appear unclear as who would implement this operational monitoring measure of the SuDS system performance.

Having regard to all information on file including that submitted in response to the Section 132 notice, and while noting that the Hydrogeological Site Investigation demonstrates that previous activities on site have not impacted on the underlying soils and groundwaters, I consider that this submitted report does not adequately ascertain if there would be any hydrological, hydrogeological or other impacts (either by way of surface water or groundwater) from the proposed development on the turlough (pNHA Loughmore Commons Turlough).

Notwithstanding that the NIS states that the development may modify local hydrology, I am not satisfied that potential impacts from the proposed development on the turlough, Loughmore Canal and any potential hydrological pathway to the Barnakyle/Maige river systems and ultimately to the Lower River Shannon SAC have been adequately addressed in the revised NIS. As such, I do not consider that it has been adequately demonstrated that there would be no potential impacts on these 4no. QIs of the SAC.

Having regard to the foregoing, I consider that it has not been demonstrated that the proposed development will not affect the attainment of conservation objectives of Lower River Shannon SAC. Adverse effects on site integrity cannot be excluded and reasonable scientific doubt remains as to the absence of such effects.

In-combination effects

In-combination effects of plans and projects are set out at Section 5.4 of the NIS. While the type of significant development in the area that were considered for potential cumulative impacts are outlined, namely SHD developments in the Raheen/Dooradoyle area, wastewater infrastructure upgrade works, road improvement schemes and industrial/commercial developments in Raheen Business Park, I do not consider the information outlined to be comprehensive.

In this regard I note the following:

ABP-319328-24 (P.A. Ref. 2460010): Permission was granted in 2025 for construction of a nursing home, service building and biodiversity area. A NIS was submitted with the application. This site is approx. 280m south west of the subject site's roadside frontage. The Inspector's report noted that works were underway on development permitted by P.A. Ref. 20/93 (an 82-bed nursing home). This ABP-319328-24 (P.A. Ref. 2460010) case was under appeal at time of response to the Section 132 notice.

ABP-314291-22 (P.A. Ref. 22/190): A 10-year permission was granted for a biopharmaceutical manufacturing campus on the opposite side of R526 to the subject site. An AA and EIAR were submitted with the application. An appeal was withdrawn. Construction has commenced.

While noting these recently permitted developments outlined above, I consider that there are no plans or projects which could act in combination with the current proposal to result in significant effects to Natura 2000 sites.

Findings and Conclusions
The applicant determined that following the implementation of mitigation measures the construction and operation of the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Reasonable scientific doubt
I am not satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site integrity
It has not been demonstrated that the proposed development will not affect the attainment of conservation objectives of Lower River Shannon SAC. Adverse effects on site integrity cannot be excluded and reasonable scientific doubt remains as to the absence of such effects.

River Shannon and River Fergus SPA (004077): **Summary of key issues that could give rise to adverse effects (from screening stage):** **(i) Water quality degradation (construction and operation)** **(ii) Disturbance effects**			
Qualifying Interest features likely to be affected	**Conservation Objectives** **Targets and Attributes** **(Favourable conservation condition)**	**Potential Adverse effects**	**Mitigation measures (summary)** **NIS Section 5.5**
A017 Cormorant *Phalacrocorax carbo* A038 Whooper Swan *Cygnus cygnus* A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A050 Wigeon *Anas penelope* A052 Teal *Anas crecca* A054 Pintail *Anas acuta* A056 Shoveler *Anas clypeata* A062 Scaup *Aythya marila*	Maintain (all)	Water quality degradation would undermine conservation objectives.	During construction site contamination control comprising soil management protocol including regular testing of excavated materials, dedicated stockpiling areas and dust suppression to prevent mobilisation of contaminants. Root protection zones to be protected. CEMP, monitoring by Environmental Manager of water quality control measures. At operational phase, SuDS features and

A137 Ringed Plover *Charadrius hiaticula* A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A142 Lapwing *Vanellus vanellus* A143 Knot Calidris *canutus* A149 Dunlin Calidris *alpina* A156 Black-tailed Godwit *Limosa limosa* A157 Bar-tailed Godwit *Limosa lapponica* A160 Curlew *Numenius arquata* A162 Redshank *Trnga totanus* A164 Greenshank *Tringa nebularia* A179 Black-headed Gull *Chroicocephalus ridibundus*		Disturbance effects on any potential ex-situ feeding/foraging ground for QIs of SPA.	attenuation tank proposed. Monitoring of SuDS performance, including quarterly inspections. Timing of vegetation clearance, and tree protection measures.

Assessment of issues that could give rise to adverse effects:

(i) Water quality degradation.
As above for SAC.

(ii) Disturbance effects.

It is outlined (at Section 2.2) with regard to field-based studies that habitats were identified and classified on 29 September 2024. QIs, mostly wintering species, were not recorded within the applicant site during the site visit; Table 2 refers.

Given that the QIs for the SPA are mostly wintering birds, I note that the NIS does not comment as to the appropriateness, or not, of the survey being carried out during the late September timeframe. I consider that the baseline information relating to the field survey and potential ex-situ impacts on QIs of the SPA is very limited.

I do not therefore consider that it has been adequately demonstrated that the development site is not utilised as an ex-situ feeding/foraging ground for any QI of this SPA. While the revised AA Screening and NIS Report states that no QI species were on site, and notwithstanding the approx. 2.4km distance from the appeal site to the SPA, and also that the appeal site is part brownfield, I consider that it has not been demonstrated that conservation objectives would not be undermined by the proposed development.

Mitigation measures
As above for SAC.

In addition, I note that vegetation clearance will follow a phased approach to minimise exposed soil areas, and that applicant is to ensure that treelines along the site boundaries are protected during construction with fencing establishing root protection zones.

However, I consider that it has not been demonstrated that the proposed development will not affect the attainment of conservation objectives of the River Shannon and River Fergus Estuaries SPA. Adverse effects on site integrity cannot be excluded and reasonable scientific doubt remains as to the absence of such effects.

In combination effects

As above for SAC.

Findings and Conclusions
The applicant determined that following the implementation of mitigation measures the construction and operation of the proposed development alone, or in combination with other plans and projects, will not adversely affect the integrity of this European site.

Reasonable scientific doubt
I am not satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site integrity
It has not been demonstrated that the proposed development will not affect the attainment of conservation objectives of River Shannon and River Fergus SPA. Adverse effects on site integrity cannot be excluded and reasonable scientific doubt remains as to the absence of such effects.

Appropriate Assessment Conclusion: Integrity Test

In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on Lower River Shannon SAC (002165) and River Shannon and River Fergus Estuaries SPA (004077) in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of S177U was required.

Following an examination, analysis and evaluation of the NIS, all associated material submitted with the application, as amended by Significant Further Information and as amended by the plans and particulars submitted to the Board on 28 November 2024 in response to the Section 132 notice, I consider that adverse effects on site integrity of the Lower River Shannon SAC and River Shannon and River Fergus SPA cannot be excluded in view of the conservation objectives of these sites and that reasonable scientific doubt remains as to the absence of such effects.

My conclusion is based on the following:

- Nature and scale of the proposed development and its proximity to a turlough and canal
- Lack of adequate detailing relating to any hydrological, hydrogeological or other impacts, either by way of surface water or groundwater, from the proposed development on the turlough, and any consequent impacts on the canal and the Barnakyle and Maigue river systems
- Lack of adequate detailing relating to use, or not, of the appeal site by wintering birds
- An assessment of all aspects of the proposed project based on the information on file including proposed mitigation measures and monitoring in relation to the conservation objectives of the aforementioned designated sites