An Bord Pleanála Oral Hearing

Córas Iompair Éireann/Iarnród Éireann

Dublin to Cork Railway Line Level Crossings

Brief of Evidence

Environmental Impact Assessment Report, Population & Health & Surface Water

Heidi Sewnath

AN BORD PLEANÁLA
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Cork Line Level Crossings Oral Hearing
Brief of Evidence of Heidi Sewnath
EIA, Population & Health and Surface Water

1 QUALIFICATIONS AND ROLE IN THE PROPOSED PROJECT

1 My name is Heidi Sewnath. I am an Associate Director in Environmental Assessment in Jacobs. I hold a Bachelor of Science (Hons) degree in Environmental Biology from the University of Liverpool, in which I specialised in Freshwater Biology. I have a Diploma in Water and Environmental Management from the Chartered Institute of Water an Environmental Management (CIWEM),

2 I am a Chartered Environmentalist with the Society for the Environment and a Full Member of the Institute of Environmental Management and Assessment (IEMA).

3 In accordance with Section 39(1)(a) of the Transport (Railway Infrastructure) Act 2001 as amended and substituted (including by SI 743 of 2021), I have over 20 years' experience in environmental management, policy and assessment. Over the past 20 years, I have also been incorporating the principles of sustainable development, including social and economic impact assessment, within my appraisal work. I have trained in Rapid Health Impact Assessment with the University of Liverpool School of Tropical Medicine and the Account Ability's AA1000 Stakeholder Engagement Standard. My primary role is in the coordination of Environmental Impact Assessments and I am one the lead EIA Coordinators on this project. I am also experienced in authoring and reviewing Population & Human Health chapters of EIARs and this has included Nationally Significant Infrastructure Projects (NSIPs) in England and Wales. This experience has given me a clear understanding of the combined environmental impacts a project can potentially have on communities, which are often greater than the sum of their parts. In applying this knowledge, I have developed an approach to assess these intra-project cumulative effects in a systematic and transparent way, using an Amenity Assessment technique, which draws on the findings from other assessments, such as noise, air quality, visual impacts and traffic.

4 I am also a specialist in the assessment of impacts on the surface water environment, having been in a surface water quality regulatory role for the Environment Agency in England and lead author of a number of surface water chapters in the EIARs for major infrastructure projects. This includes being lead author and assessor on the surface water impacts assessment for the Water Supply Project; a 171km proposed pipeline to bring water from the Shannon to Dublin, which crossed over 450 rivers, ditches and drains. In this project and all others for which I am water lead, I work closely with the design engineers to ensure that temporary and permanent drainage is designed so as to ensure there will be no significant impacts on water quality or geomorphology.

5 I have been involved in the Project since 2019 and have advised Córas Iompair Éireann (CIÉ) and Iarnród Éireann on the Population and Human Health constraints since the Preliminary Design stage of the Project which considered alternative options for the alternative access routes at each level crossing location. My involvement culminated in the preparation of the Population and Health Chapter (Chapter 6) and the Surface Water Chapter (Chapter 9) in Volume 3 Part A of the EIAR, which was submitted to An Bord Pleanála in April 2021.

6 The European Union (Railway Orders) (Environmental Impact Assessment) (Amendment) Regulations 2021 (S.I.No. 743 of 2021) now gives further effect to the transposition of the EIA Directive (EU Directive 2011/92/EU as amended by Directive 2014/52/EU) on the assessment of the effects of certain public private projects on the environment by amending the Transport (Railway Infrastructure) Act (hereafter referred to as "the 2001 Act.").

7 This Statement reflects the assessment prepared in Chapters 6 (Population and Health) and 9 (Water) which comprise part of the assessments which comprise the EIAR for this Railway Order Application

and which inter alia contains:- (i) a description of the proposed railway works comprising information on the site, design, size and other relevant features of the proposed works;(ii) a description of the likely significant effects of the proposed railway works on the environment;(iii) the data required to identify and assess the main effects which the proposed railway works are likely to have on the environment;(iv) a description of any features of the proposed railway works, and of any measures envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;(v) a description of the reasonable alternatives studied by CIÉ which are relevant to the proposed railway works and their specific characteristics and an indication of the main reasons for the option chosen, taking into account the effects of the railway works on the environment; and (vi) a summary in non-technical language of the above information.

8 The examination, analysis and evaluation is carried out by An Bord Pleanála in order to identify, describe and assess the direct and indirect significant effects of the proposed railway works, including significant effects derived from the vulnerability of the activity to risks of major accidents and disasters relevant to it, on: population and human health; biodiversity, including species and habitats protected under the Habitats and Birds Directives; land, soil, water, air and climate; material assets, cultural heritage and the landscape, and the interaction between the above factors.

9 The EIAR also takes into account the available results of other relevant assessments under European Union or national legislation with a view to avoiding duplication of assessments. For example, the assessments contained in the EIAR have also been co-ordinated with the assessment under Council Directive 92/43/EEC of 21st May 1997 (The Habitats Directive) and Directive 2009/147/EC of the European Parliament and of the Council of 30th November 2009 (Birds Directive) as transposed in Irish law and the NIS which has been prepared for this Railway Order application. The EIAR, in addition to addressing the matters set out in section 39(1) of the 2001 Act, contains information specified in Annex IV to the EIA Directive relevant to the specific characteristics of a particular railway works and type of railway works proposed and to the environmental features likely to be effected.

10 Section 42B of the 2001 Act now includes provisions in relation a "reasoned conclusion" and the reasoned conclusion must now be integrated into the RO. Accordingly, before deciding whether or not to grant a Railway Order An Bord Pleanála must take into account *inter alia* the following matters:

- the EIAR
- any additional information
- any submissions or observations made in relation to the likely significant effects on the environment of the activity to which the application relates duly made to it
- consider any other evidence it has obtained in relation to the likely significant effects on the environment of the activity to which the application relates, and
- taking into account the results of the examination of matters referred to above and reach a reasonable conclusion on the significant effects on the environment of the activity to which the application relates.

11 Accordingly, an RO, if granted, includes inter alia (a) the reasoned conclusion referred to in section 42B of the 2001 Act, (b) any environmental conditions, including conditions regarding monitoring measures, parameters to be monitored and the duration of monitoring, to which the authorisation is subject, and (c) a description of any features of the proposed railway works, or any measures envisaged, to avoid, prevent or reduce, or offset significant adverse effects on the environment.

12 I confirm that this statement of evidence provides an overview of the EIAR and addresses the potential impacts on Population and Human Health and the Surface Water environment in the context of the Environmental Impact Assessment (EIA) to be carried out by An Bord Pleanála in respect of the Project.

13 I can confirm that, consistent with the other chapters of the EIAR the chapters dealing with Population and Health and Water take into account the available results of other relevant assessments under European Union or national legislation with a view to avoiding duplication of assessment.

14 I also confirm that in carrying out the Water assessment as part of the EIAR my assessment has co-ordinated the assessment with the assessment under Council Directive 92/43/EEC of 21st May 1997 (The Habitats Directive) and Directive 2009/147/EC of the European Parliament and of the Council of 30th November 2009 (Birds Directive).

2 THE EIAR

2.1 Overview of the EIAR Process

15 Section 37 of the 2001 Act requires that an application for a RO shall be made to An Bord Pleanála (the Competent Authority) in writing and shall be accompanied by a number of matters including an EIAR. A Screening and Scoping Report was published for Public and Statutory Stakeholders on 20th November 2019 and was consulted upon until the 21st January 2019.

16 The EIAR, which An Bord Pleanála considers as part of the carrying out of its environmental impact assessment, was prepared in accordance with the then 2001 Act and in accordance with the EIA Directive (EU Directive 2011/92/EU as amended by Directive 2014/52/EU) on the assessment of the effects of certain public private projects on the environment."

17 The statements of evidence now made on behalf of CIÉ and submissions at this oral hearing form part of the matters which An Bord Pleanála considers in carrying out the environmental impact assessment in accordance with the 2001 Act,

18 The suite of documents submitted as part of the EIAR are provided in **Appendix 1.**

2.2 Reaching a Reasoned Conclusion

19 In order for An Bord Pleanála to reach a reasoned conclusion on the likely significant effects of the proposed railway works on the environment, the Applicant has provided an Environmental Impact Assessment Report (EIAR) which is consistent with the requirements set out in SI 743/2021 European Union (Railway Order) (Environmental Impact Assessment) (Amendment) 2021 (EIA Regulations) and with the EIA Directive (EU Directive 2011/92/EU as amended by Directive 2014/52/EU).

20 The structure and content of the EIAR for the Proposed Project is set out in Volume 2 of 5 of the EIAR, Chapter 4 EIA Process and Method and the manner of the presentation is set out in **Appendix 2**.

21 Consistent with SI 743/2021, the EIAR includes the information that may reasonably be required for reaching a reasoned conclusion in accordance with Section 42B of the 2001 Act on the significant effects of the proposed railway works on the environment, taking into account current knowledge and methods of assessment and this is set out in **Appendices 1** and **2.**

2.3 Responding to Submissions

22 In preparation for this Oral Hearing, the project team has prepared precis of evidence. The precis include brief overviews of the assessments carried out at each site of the proposed Project; they do not repeat the EIAR. They also include responses to the specific issues raised in submissions from the various parties.

23 Generally the proposed Project has no significant effects on the environment, or where potential significant effects are identified, mitigation measures have been identified to ensure there are no residual significant effects. Various specialists will respond to issues relating to these.

24 I now address the submissions relating to the determination of the need for EIA, Population and Human Health and Surface Water.

2.4 Submissions/objections Received and Responses

XC212

Submission:

25 The submission made by the Trustees of the Diocese of Cloyne – various registered lands included a query regarding the decision to carry out a single Environmental Impact Assessment (EIA) for the seven sites rather than a Strategic Environmental Assessment and for the EIAR to include all seven sites rather than be carried out for each site in a site specific EIAR. This was raised in the initial submissions in July 2021 and again in additional submissions made in May 2022, following further public consultation on the Proposed Project.

Response:

26 The submission of an Environmental Impact Assessment Report (EIAR), in accordance with Section 37 of the Transport (Railway Infrastructure) Act 2001, as amended is a mandatory requirement in this case and the Strategic Environmental Assessment (SEA) has no application. In addition the SEA as defined by Regulation 9 of S.I. No. 435/2004 - European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 which states that:

A [strategic] environmental assessment shall be carried out for all plans and programmes:

- *which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications and tourism, and which set the framework for future development consent of projects listed in Annexes I and II to the Environmental Impact Assessment Directive*

27 The proposed Project is not a plan or programme which sets the framework for future development consents. As such a Strategic Environmental Assessment is neither appropriate nor required.

28 Generally it is noted that section 6(c) of the Planning and Development (Strategic Infrastructure) Act 2006 amended the definitions section (section 2(1)(g)) in the Planning and Development Act 2000 so that the definition of 'strategic infrastructure development' includes inter alia any proposed railway works referred to in section 37(3) of the Transport (Railway Infrastructure) Act 2001 (as amended by the Planning and Development (Strategic Infrastructure) Act 2006). (It is further noted that the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No.296/2018) apply inter alia to applications for permission to An Bord Pleanála for strategic infrastructure development under section 37E of the Planning and Development Act 2000). In addition, section 54 of the Planning and Development (Amendment) Act 2010 amended section 172 of the Planning and Development Act 2000 and refers to the carrying out of an environmental assessment by An Bord Pleanála in respect of an application for consent for proposed development which includes inter alia a Railway Order granted under section 43 of the Transport (Railway Infrastructure) Act 2001.

29 In terms of the concerns raised about the use of a single EIAR as opposed to seven separate ones undermining the assessment process, the Railway Order being applied for comprises all seven sites, therefore the proposed Project constitutes a single project across seven sites. In accordance with the requirement to carry out an environmental impact assessment as part of an application for a Railway Order, a single EIAR for all seven sites was submitted.

30 In response to the concerns raised regarding the differences in baseline condition at each site, this is addressed in the EIAR by each topic assessment including site specific assessments for each location.

In addition, where appropriate, consideration is also given to the potential for intra-project cumulative impacts i.e. the potential for combined effects as a result of the seven sites being progressed together. It is accepted that the sites differ in their locational context and this is taken into account in the baseline conditions assessed for each location. The different locational context does not preclude the application of national planning policy and railway strategies to local projects; indeed, it is a requirement in the planning process that such policies *are* applied. The application of these policy documents to identify the need for, and approach to the design of, the Proposed Project does not trigger the application of S.I. No. 435/2004.

31 In terms of the use of a single EIAR undermining the assessment of alternatives, Chapter 2 of the EIAR describes in detail the alternatives that were considered and how they were assessed. In addition, the alternatives were subject to public consultation and in Ballycoskery the route of the emerging preferred option for XC211 was altered significantly to accommodate the wishes of local residents, moving from the west of the railway line to the east.

32 In terms of the use of a single EIAR limiting the range of mitigation measures which can be implemented, this is not supported by any evidence. The Construction Environmental Management Plan (CEMP) Appendix 1I in Volume 5 Appendices, includes mitigation measures which are site specific as well as a number which would be applicable at all sites. There is a significant level of industry standard mitigation measures and controls which are routinely employed in construction sites to minimise impacts on the water environment, air quality and noise, for example. Where appropriate, additional measures are identified specific to a particular locality. These are based on locally specific environmental baseline conditions. The Schedule of Mitigation Appendix 1L in Volume 5 Appendices includes all of these measures and any identified for the operation of the Proposed Project once constructed. This includes, for example, landscape management plans for each of the sites where landscaping is proposed. The plans are bespoke to each site.

3 Population and Human Health

3.1 Overview of the Population and Human Health Assessment and Findings

33 In order to address the submissions received it is appropriate to recap on a few matters.

34 The Population & Health assessment was carried out in accordance the draft EPA Guidance on Information to be Contained within an EIAR (2017) and the UK's Design Manual for Roads and Bridges (DMRB) guidance note, LA112 Revision 1 Population and human Health (used in the absence of EIAR guidance on Population and Human Health in Ireland in relation to rail and roads).

35 In the context of the Population and Human Health Assessment, amenity is akin to 'living conditions' or 'pleasantness of surroundings'. As such, 'nuisance' impacts of noise, traffic, poor air quality as well as impacts on views, can individually, and in combination, affect amenity. The amenity assessment in the Population and Human Health chapter focuses on the potential for combined impacts impacting local communities; individual impacts relating to noise etc are addressed in the discipline chapters.

XC187 Fantstown

36 At XC187 Fantstown, the proposal to close the level crossing requires limited construction work and so there would be no impacts from this part of the proposed Project.

37 During operation, the main benefit would be one of increased safety and reduced risk of accidents at this level crossing. Potential adverse impacts relate to access to services, businesses and recreational

routes. The closure of the level crossing will result in a diversion of approximately 4.5km. Surveys have shown there to be little use of the level crossing by vehicles or non-motorised users (NMU) such as walkers, cyclists and those on horseback and so the potential for this to affect access to local sports clubs pr recreational routes is considered to be of slight significance only.

38 A question of severance for local residents and land users was raised during consultation; however the level of use of the existing level crossing, as identified in recent (2019 and 2020) traffic and non-motorised user surveys is very low and has been for many years: evidence provided at the Fantstown Oral Hearing in 2009 stated that "there is little traffic using the road, even agricultural traffic, except at harvest time, and the latter would pose a high risk crossing a railway". This means the significant of this potential effect is likely to be slight.

39 As a result, no significant impacts are anticipated for Population and Human Health at this location.

XC201 Thomastown

40 No significant impacts are predicted during construction of the proposed Project. No direct effects on health are predicted as a result of air quality or traffic impacts. The noise effects on three properties are at a level above which could have adverse effects on health, however, with the mitigation proposed and the temporary nature of the effects, overall effects on health are likely to be negligible.

41 A Construction Traffic Management Plan will be implemented to prevent or minimise potential impacts relating to construction traffic.

42 In operation, whilst the existing PRoW will be extinguished, the road over rail bridge provides an enhanced alternative in very close proximity for non-motorised users of the road. The proposed Project will result in better safety as a result of the closure of the level crossing and associated road improvements.

43 The provision of a road over rail bridge means there will be no restrictions in crossing the railway once operational. It will enable emergency services and the wider public to use this route 24h a day whereas previously access would be restricted (particularly at night).

XC209 Ballyhay

44 The proposed Project involves installing CCTV to replace the staffed level crossing therefore minimal construction will occur and impacts on population and human health are not anticipated, with the exception of some disruption to the use of the crossing during the upgrade and installation of electricity cables.

45 The upgrade of the level crossing to CCTV is not expected to have a significant effect on traffic flows, air quality or noise. Similarly, there will be improved access for the local community as the crossing will operate on a 24 hour basis, remotely monitored from the Level Crossing Control Centre in Mallow; currently the crossing is closed between 2330 and 0730 hours.

46 XC211 Newtown and XC212 Ballycoskery during construction, potentially significant amenity effects could be experienced as a result of construction works close to the school and residential areas, however the mitigation measures identified for Construction Traffic, Dust, and Noise and Vibration will reduce these impacts to 'not significant'.

47 A circular walking route of approximately 2.5 km used for recreation, will be directly impacted during construction by HGV routing, which may make it less attractive as a recreational option. However, since the works are temporary, and there are alternate green spaces located in the wider green space.

This is not likely to result in long-term health effect and therefore the impacts on health are expected to be neutral.

48 In operation, the extinguishment of the PRoWs at XC211 and XC212 at the level crossings are not anticipated to have significant impacts; at XC211 there is likely to be a slight inconvenience to residents as a result of being diverted to the new access road; at XC212 the impacts are likely to be beneficial as the new crossing will have unconstrained 24 hour access across the railway. This is especially beneficial for access for emergency services.

49 At Ballycoskery in particular, there will be increased safety for school children attending the local primary school as a result of the closure of the level crossing and the provision of a safer drop off and pick up area for parents.

XC215 Shinanagh

50 During construction of the proposed new road at this location, potential amenity effects may be experienced by nearby residential receptors due to noise and visual effects associated with the construction activities over a 44 week period. These will be reduced to not significant however following the implementation of mitigation measures. Overall effects on health are likely to be neutral.

51 In operation, the extinguishment of the PRoW may present a slight inconvenience for users wishing to access the local road to the west of the existing crossing, as these will be diverted 800m north to an existing overbridge. However, there will also be benefits from reduced wait times, especially for those accessing from the north and so this is 'not significant'.

XC219 Buttevant

52 There are a limited number of residents in close proximity to the proposed Project in this location. During construction, no significant effects are expected. The presence of HGVs and increased traffic flow through Buttevant could result in adverse impacts for those accessing the local school and local community facilities. For those accessing the school, mitigation measures are in place to ensure that, as far as possible, timings of HGV movements avoid school pickup and drop off times. The overall impact on the local community is expected to be slight and not significant. Based on the low traffic flows on the existing road and the lack of impacts locally, it is unlikely that there would be any wider impacts on access to employment and tourism in the region. Overall effects on health are likely to be neutral.

53 In operation, the existing PRoW here will be replaced by a new crossing, less than 50m south. With no delays as result of waiting for trains, this is considered a beneficial impact, although not significant.

54 In conclusion, no significant adverse effects are predicted for the Population and Human Health as a result of the proposed Project; beneficial effects generally include improved accessibility, particularly for emergency services and increased safety.

55 In addition, the issues raised in submissions and observations made to the Board on the application for development consent in relation to Population and Health are also addressed in the following documents Non-Technical Summary, EIAR Chapter 6 Population and Human Health, Chapter 10: Noise & Vibration, Chapter 11: Traffic & Transport, Chapter 13: Landscape & Visual Impacts, Chapter 15: Air Quality.

Responses to issues raised in observations & objections

Summary

56 In relation to the issues raised in submissions and observations, 44 submissions raised concerns about the potential impacts of the Proposed Project on their community or their businesses. By way of summary, I now set out the issues raised and the response on behalf of CIÉ:

Issue: Community separation

57 Response: there are currently long waiting times to cross under existing conditions, with one submission stating that the community was already divided as a result. The wait times are as a result of the gatekeeper being required to contact the rail operator to confirm it is safe to allow users to cross. The increase in journey length is approximately 4.5km for all users; without existing wait times at the level crossing, this represents a minor increase in journey times by vehicles and this is not a significant impact. For non-motorised users, the existing Fantstown cycle network does not use the level crossing but uses the bridge to the east; no cyclists were recorded crossing during the survey of January 2020. As a result, impacts on these users is not considered to be significant. For walkers, no pedestrians were observed during the survey. As a result, impacts on these users is not considered to be significant.

Issue: increased anti-social behaviour

58 Response There is no basis or evidence for the assertion that the areas within the Railway Order will give rise to fly-tipping or anti-social behaviour. Further there is no evidence provided in the submissions to support the assertion that the creation of these sections of unused road will lead to an increase in anti-social behaviour; nor is there any evidence of this nature published by the local authorities; nor any evidence of such issues arising on similar areas already created.

Issue: Devaluation of Property

59 Response: the scheme will not have a significant adverse impact on the amenities or the value of property in the vicinity of proposed Project. The proposed Project is designed, finished, treated and landscaped to a high standard and will offer a general improvement in the visual amenity of the areas generally.

Issue: impacts on popular walking routes

60 Response: the Ballyhoura Way is part of the O'Sullivan Beara trail and stretches 90km from John's Bridge in North Cork to Limerick Junction in County Tipperary. Stage 2 of the Ballyhoura Way, begins at Ballyhea GAA Club and ends at Glenosheen; it is a 25km walk. The route shown for this walk follows a local road across the existing level crossing and south to Ballycoskery, continuing south from there to Lisballyhea and then turns north to the Ballyhoura mountain range. The Proposed Project involves the construction of a new road from the road to the east of the existing overbridge to the north of the level crossing, and south to the road to the east of the level crossing. The increased journey length is 80m. This is not a significant diversion and is unlikely to impact walkers on a 25km walk.

Increased difficulties accessing community facilities

61 Response: the nearest GAA Club (Staker Wallace) is located on the route of the proposed diversion and would continue to be accessible via the diversion route, as it is now with minimal increases in journey times. For visitors of the club who live in very close proximity to the level crossing, the journey length would be increased by approximately 1.5km; from 2 to 3.5km. There are no schools in the immediate vicinity of the level crossing and none is close enough to the crossing to suggest that children local to the crossing would walk and there are no churches or public houses in the immediate vicinity of the level crossing that might be impacted by its closure.

62 Response: the majority of these potential impacts were comprehensively identified and assessed in the EIAR at Chapter 6 Population and Human Health. Section 6.6 of the EIAR identifies and evaluates the likely significant construction and operation phase effects of the project on Population and Health. No significant impacts are identified and therefore Section 6.8 of the EIAR concludes in relation to the Population and Health appraisal that no significant residual impacts are predicted. In considering these matters again in the context of the issues raised in the submissions received, whilst it is acknowledged that for some individuals, the Proposed Project may present an inconvenience compared to the current arrangements, for the majority of people this will not be the case; rather the Proposed Project will either have no significant impact on their daily lives or bring about an improvement through unfettered access across the railway and improved safety. In my view, there will be no significant impacts on population or human health as a result of the proposed Project.

63 I now set in particularised format the issues raised and responses to same as summarised above.

Submissions relating to the Creation of Cul de Sacs

Submission:

64 The closure of the level crossings would lead to the creation of a cul de sac on both sides of the railways tracks, this would increase the risk of fly tipping/dumping and anti-social behaviour on these roads. as well as devaluing the houses located on these roads.

65 This issue has been raised by Betty Houlihan, Barry Houlihan, Michael Donegan (of Cappamore Kilmallock Municipal District), Luke Lillingston, Tabitha Lillingston, Cllr PJ Carey, Joseph and Donnie Clifford.

66 Betty Houlihan also raised concerns that the creation of a cul de sac at Fantstown would result in the devaluation of her property.

Response:

Dumping/fly tipping:

67 There is no basis or evidence for the assertion that the areas within the Railway Order will give rise to fly-tipping or anti-social behaviour. Further there is no evidence provided in the submissions to support the assertion that the creation of these sections of unused road will lead to an increase in anti-social behaviour; nor is there any evidence of this nature published by the local authorities; nor any evidence of such issues arising on similar areas already created. If such were to arise, there are a range of statutory remedies that are open to any person effected to deal with such issues.

68 The roads are currently within the charge of and are under the control of Limerick CCC. This will continue to be the case for all roads which remain as public roads. At Thomastown the control of the road will return to the adjacent landowners; Irish Rail is open to discussions with local communities for this to be done elsewhere if considered appropriate.

Devaluation of property:

69 The scheme will not have a significant adverse impact on the amenities or the value of property in the vicinity of proposed Project. The proposed Project is designed, finished, treated and landscaped to a high standard and will offer a general improvement in the visual amenity of the areas generally. It is required to facilitate the upgrade generally of the existing railway infrastructure which will bring positive effects of sustainable travel which will enhance property values in the counties of Limerick and Cork that can access the proposed Project.

70 In respect to property devalued arising out of land acquisition, this is subject to a separate scheme of compensation, and it is not appropriate to deal with this issue here.

XC187 Fantstown

Submission:

71 The closure of the level crossing would result in the splitting of the community.

72 This issue has been raised by Betty Houlihan, Shane Houlihan, Barry Houlihan, Aidan Houlihan, Anthony Fitzgerald, Leonie and David Passmore, Carol Conran, Brian and Lorna Fitzgerald, Geraldine O'Connor, Gabriel Clery, Michael Donegan (of Cappamore Kilmallock Municipal District), Luke Lillingston, Tabitha Lillingston, Valerie Hanley, Cllr Eddie Ryan, Niall Collins TD and Roger Clery.

Response:

73 Chapter 14, Traffic and Transport of the EIAR, provides details of the results of the traffic survey and pedestrian survey carried out in October 2019 and January 2020 respectively. The traffic surveys in October 2019 showed that there were more than 400 vehicles crossings across the railway bridge to the east of XC187, the location of the proposed diversion; in the same week, there were only 22 crossings of the level crossing. The pedestrian survey of January 2020 counted the number of pedestrians, cyclists or livestock crossing the railway between the hours of 0700 and 2100 for a period of a week. None was recorded. The very low rate of use by non-motorised users makes this route a 'negligible to low sensitivity' route in accordance with DMRB guidance note, LA112 Revision 1 Population and human Health (used in the absence of EIAR guidance on Population and Human Health in Ireland in relation to rail and roads).

74 The increase in journey length is approximately 4.5km for all users; without existing wait times at the level crossing, this represents a minor increase in journey times by vehicles and this is not a significant impact. For non-motorised users, the existing Fantstown cycle network does not use the level crossing (see Figure 11.3 of Chapter 11 Traffic and Transport) but uses the bridge to the east; no cyclists were recorded crossing during the survey of January 2020. As a result, impacts on these users is not considered to be significant. For walkers, no pedestrians were observed during the survey. As a result, impacts on these users is not considered to be significant.

75 A number of respondents have made submissions stating that there are long waiting times to cross under existing conditions, with one respondent stating that the community was already divided as a result. The wait times are as a result of the gatekeeper being required to contact the rail operator to confirm it is safe to allow users to cross. This is standard practice at all manned crossings. Pedestrian gates are managed to ensure this procedure is adhered to by all users, not only those who require the barrier to be lifted in order to cross. Ensuring the safety of all users is of paramount importance in the management of level crossings.

76 Taking all of these factors into consideration, there is no evidence to support the assertion that closing the level crossing would cause a significant impact on the local community.

Submission:

77 The closure of the level crossing would result in loss of access to farming land to the south of the level crossing. The farmland to the south of the railway line is managed by a tenant farmer. There is concern the closure would result in impacts on the businesses of both the landowner and the tenant farmer.

78 There are also concerns that this would lead to an increase in agricultural machinery on the regional highway network, potentially introducing new safety and cost issues.

79 This issue has been raised by Gabriel Clery, Pat Leahy, Cllr PJ Carey, William Bagnall, John Walsh, Tom O'Donnell, Eamon O'Mahoney.

Response:

80 As has been stated, the increase in journey length is approximately 4.5km; this represents a minor increase in journey times for vehicles and is not considered to be significant and, when compared to existing journey times, including wait times at the level crossing, the diversion could potentially result in a shortening of journey times for through traffic.

81 It is normal practice that livestock is moved using a truck and trailer across the level crossing currently and that this has been the case for a number of years. These movements occur a few times per year. In addition, it may be that the crossing is used more frequently when silage is being made, however this is only done at certain times of the year. It seems unlikely therefore that such a detour would be detrimental to the viability of the business.

Submission:

82 The closure of the level crossing would restrict access to local community facilities or businesses.

83 This issue has been raised by Valerie Hanley and Cllr Eddie Ryan.

84 The closure of the crossing would also mean the end of a popular walkway and cycle route for local residents.

85 This issue has been raised by Betty Houlihan, Shane Houlihan, Barry Houlihan, Anthony Fitzgerald, Leonie and David Passmore, Carol Conran, Brian and Lorna Fitzgerald, Monica Clery, Pat Leahy, Cllr PJ Carey, Gabriel Clery, Valerie Hanley and Cllr Eddie Ryan.

Response:

86 The nearest GAA Club (Staker Wallace) is located on the route of the proposed diversion and would continue to be accessible via the diversion route, as it is now with minimal increases in journey times. For visitors of the club who live in very close proximity to the level crossing, the journey length would be increased by approximately 1.5km; from 2 to 3.5km.

87 There are no schools in the immediate vicinity of the level crossing and none is close enough to the crossing to suggest that children local to the crossing would walk; Bulgaden National School is approximately 1.87km further to the north east, Martinstown National School is approximately 4.5km from the crossing to the south east and Effin Primary School is located around 8.35km to the south west. As a result, it is not anticipated that the closure of the crossing would restrict access to local schools.

88 There are no churches or public houses in the immediate vicinity of the level crossing that might be impacted by its closure.

89 The potential impacts on non-motorised users of the level crossing are addressed in the precis to be presented by our transport specialist Colin Wylie.

Submission:

90 Local producers of sport horses and thoroughbreds have raised concerns that the level crossing is the only safe way for them to access Mountcoote Gallops, which they use for getting the racehorses fit. The only other option would be to ride them on the main Kilmallock/Tipperary Road. The submission expresses concern for the safety of both their riders and passing traffic.

91 This issue has been raised by Siobhan Reidy Leahy.

Response:

92 A pedestrian survey was carried out in January 2020 and over a period of a week no pedestrians, cyclists or livestock crossed the railway between the hours of 0700 and 2100. The exact location of Mount Coote 'gallops' is not made clear by the submission, however Mount Coote Stud has significant land is located on the south side of the R515, approximately 1.5km to the west of the level crossing. If access to land to the north of the level crossing is required for exercise, this could be achieved using horse trailers, incurring a very limited increase in journey time.

Submission:

93 Concerns have been expressed that the locking of the pedestrian gates at the level crossing and the requirement for a gatekeeper to open the gate to both pedestrians and vehicles, has increased wait times and reduced the number of people who would otherwise use the level crossing.

94 One local respondent confirms that employees already take a longer route to their place of employment and avoid the crossing as a result of the long wait times. Another states that since the gates have been locked and manned, the community is already divided. A local farmer who crosses the crossing six times a year has had to reverse back down the access lane as waits were so long and use an alternative route.

95 This issue has been raised by Geraldine O'Connor, Gabriel Clery, Tabitha Lillingston, Valerie Hanlan and Tom O'Donnell.

Response:

96 The manner in which crossings are currently operated has as its predominant objective, the safety of all users.

97 The wait times are as a result of the gatekeeper being required to contact the rail operator to confirm it is safe to allow users to cross. This is standard practice at al manned crossings. Pedestrian gates are managed to ensure this procedure is adhered to by all users, not only those who require the barrier to be lifted in order to cross.

98 The submissions received in response to the current wait times demonstrate that a number of people in local community have already adopted alternative access routes; the closure of the level crossing would not affect their journeys.

XC201

Submission:

99 The local school and GAA club have identified the existing level crossing as a barrier to children attending the school, which is south of the crossing, and that it currently prevents pupils from fully participating in the school community life. They welcome the proposed bridge but have concerns regarding the safety

of its design. In particular, whether there would be safety implications through a lack of a right turn lane on the R515 and that the bridge itself was not wide enough.

100 This issue has been raised by Scoil Náisiúnta Mhuire, Donal Kelly - Effin GAA Club, Cllr Eddie Ryan, Joseph and Donnie Clifford, Joseph Clifford - Effin and Garrienderk Community, Michael Donegan - Cappamore Kilmallock Municipal District, Niall Collins TD, Nuala and Joe O Connor, Patrick O Donovan TD, Richard O Donoghue TD, and Limerick CC.

Response:

101 A full response to the safety concerns has been made in the submission by our Transport specialist Colin Wylie; safety is the most important criteria that is incorporated into all stages of the design. Further, the submitted design for XC201 Thomastown was reviewed and approved in a Stage 1 Road Safety Assessment, carried out by an approved road safety auditor.

102 Our Highways Engineers were in consultation with Limerick CCC Highways Department throughout the design process. In addition, in Limerick CCC's submitted response to the Proposed Project Railway Order Application, a request was made for a slight widening of the proposed new road to the north of the railway. LCCC Executive are supportive of the narrower cross section for XC201 Thomastown, however it was requested that there is a commitment to widen the junction with R515 and to provide a passing bay within 150m. Irish Rail can support that requirement technically and will provide that commitment in the detailed design.

103 As a result, it is not anticipated that there will be safety issues associated with the design of the Proposed Project in this location and it is expected that it will provide safe and unfettered access to all members of the community and remove the existing barriers to community facilities identified in the submissions. This is an improvement on the existing situation.

XC211

Submission:

104 Concern has been raised regarding the potential impact of the closure of the level crossing on popular local walking routes.

105 This issue has been raised by Nora and Eamonn Davern and Patrick and Helen Morrissey.

Response:

106 The Ballyhoura Way is part of the O'Sullivan Beara trail and stretches 90km from John's Bridge in North Cork to Limerick Junction in County Tipperary. Stage 2 of the Ballyhoura Way, begins at Ballyhea GAA Club and ends at Glenosheen; it is a 25km walk. The route shown for this walk follows a local road across the existing level crossing and south to Ballycoskery, continuing south from there to Lisballyhea and then turns north to the Ballyhoura mountain range.

107 The section of the route within the red line boundary of the Proposed Project is shown in as it is affected.

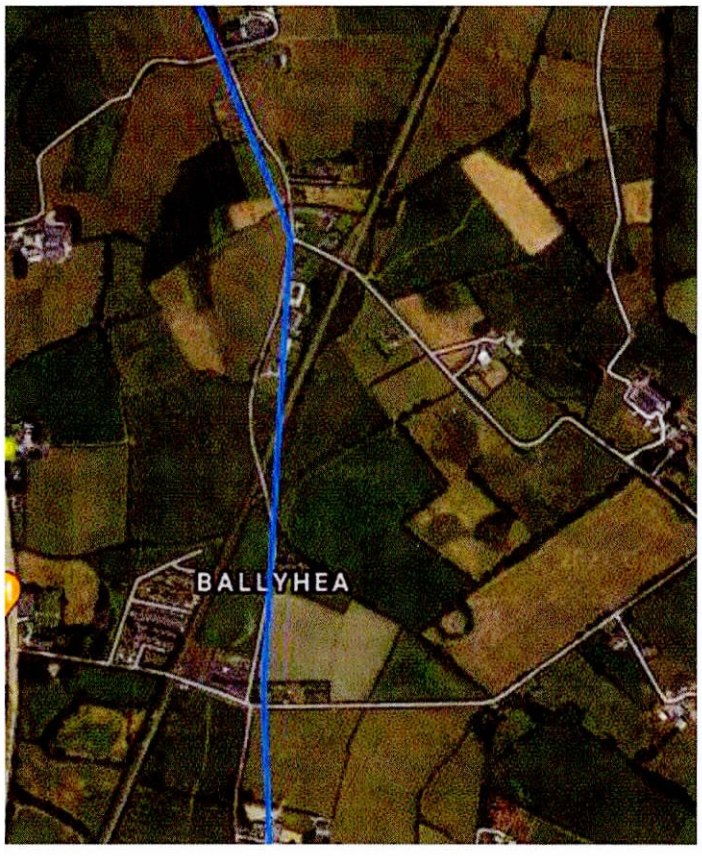

Figure 3.1 Ballyhoura Way at Newtown

108 The Proposed Project involves the construction of a new road from the road to the east of the existing overbridge to the north of the level crossing, and south to the road to the east of the level crossing. Any walkers on this route coming from the north of the overbridge or south of the level crossing (if heading in the opposite direction) will not see a significant change in their walk; instead of crossing the railway at the level crossing they would use the overbridge. The increased journey length is 80m. This is not a significant diversion and is unlikely to impact walkers on a 25km walk.

109 For walkers who live immediately north of the level crossing who would wish to walk south to Ballycoskery (Ballyhea) village, there would be a longer diversion; journey length to Ballycoskery (worst case) would be 1km instead of 0.7km (worst case). This would result in an increased journey time (walking) of approximately 5 minutes. This is not considered to be significant.

XC212

Submission:

110 There is concern that the Proposed Development will have a negative impact on the numbers of children attending the village school in Ballycoskery and ultimately affect its long term viability. Similar concerns were raised about access and use of the Community Hall and other community facilities.

111 This issue has been raised Ballyhea National School, Margaret McNamara, Michael O Kelly, Patrick and Helen Morrissey, and Trustees of The Diocese of Cloyne -various reg lands.

Response:

112 The proposed new crossing will provide unfettered access across the railway line 24 hours a day. Any children walking or cycling to school will be able to do so safely without having to cross a live railway line. This is an improvement on existing arrangements.

113 The proposed overbridge will include a footpath designed to TII standards, with additional access to the west of the line via a ramp for wheelchair users and steps to the east for direct access to the proposed new parking area and onward access to the school.

114 The provision of a dedicated car park for the school will increase its attractiveness to prospective parents who need to travel by car. The existing 'drop-off' area for the school is less safe as it provides no safe refuge areas for children exiting cars onto the roadside. The movement of the main village road further away from the school is also likely to result in improved safety as well as reduced noise and there is no basis for the assertion that the proposed bridge would reduce attendance at the school.

Submission:

115 Concerns raised that the tourism data is out of date as the EIAR reported that Doneraile Park charges an entrance fee when it has not done so for a number of years.

116 This issue has been raised by Bernadette Leahy.

Response:

117 Whilst a fee may be required to enter the house, we understand that it is free to enter the parkland, as the respondent now states but by improving rail infrastructure it will encourage tourism by providing a safe, attractive and sustainable transport mode to bring tourism into the area.

Submission:

118 Concerns have been raised as to the suitability of the Proposed Development for older people and other vulnerable groups in terms of accessibility, winter safety and the introduction of a new structure to cross.

119 This issue has been raised by Patrick and Helen Morrissey, Jerome O'Keefe, Margaret McNamara, and Maurice O' Riordan - Cork Older Age Council,

Response:

120 To the west of the railway, the proposed bridge includes pedestrian steps and a ramp to facilitate access for all pedestrians (including those with a disability) to the footpath on the north side of the carriageway. To the east, the road is sloped more gently which is within TII Standards for pedestrian accessibility, including those with a disability, and so no ramp is required; however, steps are provided from the bridge to the school car park to facilitate access to the school and community centre by foot. In addition, a guard rail is provided on the bridge, both sets of steps and the ramp. The materials used in the provision of the footpath are in line with TII standards for use on sloped pathways across all seasons.

Submission:

121 The EIAR makes no reference to the Community Hall or pre-school creche in the school grounds. There is concern expressed that the applicant does not appreciate the social significance of three facilities.

122 This issue has been raised by Jerome Okeefe, Michael O Kelly and the Trustees of The Diocese of Cloyne -various reg lands.

Response:

123 A variety of community facilities was considered in the EIAR Chapter 6 Population and Human Health, including the school itself which is the primary facility to the east of the railway.

124 The proposed new crossing will provide unfettered access across the railway line 24 hours a day to all community facilities. This is an improvement on existing arrangements and will provide benefits to all community facilities including the Community Hall and pre-school creche.

Submission:

125 Concern that the Proposed Development will fragment the village and threaten the long term viability of the Community Hall and the school.

126 This issue has been raised by Ballyhea National School, Margaret McNamara, Michael O Kelly, Patrick and Helen Morrissey, and Trustees of The Diocese of Cloyne -various reg lands.

Response:

127 The proposed new crossing will reduce existing fragmentation caused by the level crossing and provide unfettered access across the railway line 24 hours a day to all community facilities. This is an improvement on existing arrangements. Cork County Council's draft County Development Plan includes proposals for a road over rail bridge in this location. Cork County Council support the Proposed Project and confirm that it will result in 'improved safety and service provision (rail speed)' recognising the need for the improved service on the Dublin Cork line to support the use of public transport and the wider socio-economic success of the region.

Submission:

128 Concern that the Proposed Development will have negative impacts on popular walking routes in the area which cross the railway.

129 This issue has been raised by Patrick and Helen Morrissey.

Response:

130 The proposed new crossing will provide unfettered access across the railway line 24 hours a day to all previous users of the crossing, including walkers, cyclists and horse riders with no additional journey time required. This is an improvement on existing arrangements.

Submission:

131 In a submission made in May 2022, following an additional public consultation for the Proposed Project, concerns were raised that the potential cumulative impacts with the proposed M20 have not been fully considered in the EIAR, in all assessments within Chapter 17, Cumulative Impacts.

132 This issue has been raised by the Trustees of the Diocese of Cloyne and Ballyhea National School.

Response:

133 In the Population and Health assessment, it was concluded there would be no cumulative impacts during construction as it was anticipated that the Proposed Project would be completed before the construction of the M20 began. This remains the case, with the proposed Project proposed to be constructed by end 2023, pending consent; the M20 construction programme is currently between 2027 and 2030.

XC219

Submission:

134 Concerns have been raised that the Proposed Project will reduced the development potential of land to the south of the new overbridge and the viability of the parcel of land within which the embankment to the overbridge will be constructed.

135 This issue has been raised by Daniel Lucy.

Response:

136 The land in question is marked as XC219.P.03 on drawing number 32111000-JAC-LLO-XC219-DR-CH-0002 of the submitted application.

137 The area required by the Proposed Project, plus the land to the north west of the site which is severed by the Proposed Project, is approximately 0.4 Ha. The land untouched by the Proposed Project is approximately 3.7 Ha. The loss is therefore approximately 10% of land currently available for development or farming.

138 The landowner will retain the majority of his land and access into it will be provided in the north east corner of the field. This provides the same degree of access to his lands as he currently enjoys.

139 The submission provides no evidence to support the assertion that reduction in area 'reduces greatly the viability of the holding with reduced stocking rates'. Crucially, however, any land to be acquired is subject to a scheme of compensated where all loss and damage will be fully substantiated. Given this is a separate statutory scheme, it is not appropriate that this issue be engaged with at this Oral Hearing.

4 Surface Water

4.1 Overview of the Surface Water Assessment and Findings

140 The surface water assessment in the EIAR was undertaken using a method based on the Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes (hereafter referred to as the TII Assessment Guidelines) (NRA 2009), specifically Section 5.6. The assessment also took account of the guidance set out in the Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022). In addition, the relevant provisions of the EU's Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2018) have been considered in preparing this chapter of the EIAR.

141 XC187 Fantstown and XC201 Thomastown level crossings are within the Shannon Estuary South catchment and are both located within the Maigue_SC_020 sub-catchment. XC215 Shinanagh and XC219 Buttevant level crossings are located within the Awbeg [Buttevant]_SC_020 sub-catchment; XC209 Ballyhay, XC211 Newtown and XC212 Ballycoskery are within the Awbeg [Buttevant]_SC_010 sub-catchment. These five sites are all within the Blackwater (Munster) catchment.

142 Eight water bodies were initially identified as being potentially impacted upon and included in the surface water assessment. These water bodies are currently assigned either moderate or good status. Two had unassigned status at the time of writing the EIAR and remain unassigned: one of these is in the vicinity of XC187 Fantstown at which limited construction to stop up the level crossing is proposed; and the other is at XC201 Thomastown where it was determined to have no hydrological connection to the area in which construction would take place. For the remaining water bodies, the assessment considered impacts on water quality and hydromorphology; flood risks are addressed in the Flood Risk Assessment.

143 The Blackwater River (Cork/Waterford) Special Area of Conservation (SAC) is located along the Awbeg (Buttevant)_020. The SAC is located approximately between 0.25km to 1.5km from the sites XC209 Ballyhay, XC211 Newtown, XC212 Ballycoskery, XC215 Shinanagh and XC219 Buttevant. The proposed works at XC219 Buttevant includes a box culvert to facilitate the crossing of the Pepperhill EPA segment of Awbeg (Buttevant)_020 approximately 300m upstream of its confluence with the SAC.

144 XC187 Fantstown and XC201 Thomastown are not hydraulically linked to the SAC; works at these sites cannot adversely impact the SAC.

145 During the construction phase of the Proposed Project, potential impacts on the water quality and the hydro-morphology of water bodies in the study area were identified at the six sites where new structures or changes to the level crossing are proposed.

146 The highest risk of such impacts occurring was identified to be at XC212 Ballycoskery and XC219 Buttevant, where bridges over existing ditches or WFD water bodies are proposed. Of particular note was the bridging of two strands of the Awbeg (Buttevant)_020 water body in close proximity (approximately 300m) to the Blackwater River (Cork/Waterford) SAC.

147 To prevent these impacts from occurring, mitigation measures are provided in the Outline CEMP to control silty water, manage dewatering of excavations and there is a detailed set of measures for the

storage and use of fuels and other materials on site and in construction compounds. In addition, it is proposed to install the permanent drainage elements at the outset, prior to full site clearance so that these can be used to control water on and entering the site. Their connections to local surface water drains would be kept closed during construction, and the water directed to settlement tanks or lagoons if necessary, before being discharged to local watercourses or drains. Specific measures, in addition to the generic measures for silt and spillages, are set out in the Outline CEMP to manage impacts at XC212 and XC219 at the crossing of water bodies. These include damming and over-pumping during installation of the culverts, and the use straw bales and oil booms.

148 Following the implementation of these measures, no significant impacts are anticipated during the construction phase.

149 In terms of operational impacts, changes to local drainage systems to accommodate the new roads and bridges proposed could lead to local issues with drainage and increased flows to the water body; however, the design of the drainage system for the proposed Project means that there will be no net increase in runoff.

150 No drainage works are proposed at XC187 Fantstown as limited construction is proposed there; none is required either at XC209 Ballyhay as limited construction is proposed to take place there and the CCTV infrastructure does not require drainage or any alterations to existing drainage systems.

151 For the remaining sites, in keeping with NRA TB 13 – Revised Road Drainage Standards, over the edge drainage is proposed in the design for all locations, supplemented with additional features to accommodate the presence of structures or site constraints where necessary. New swales are proposed, located at the toe of the road embankments, that will then drain back to the low points to maximise attenuation and pollution control as part of a Sustainable Urban Drainage (SuDS) management chain. Swales are shallow, broad and vegetated channels designed to store and/or convey runoff and remove pollutants. They may be used as conveyance structures to pass the runoff to the next stage of the treatment train and can be designed to promote infiltration where soil and groundwater conditions allow.

152 A perforated pipe at the base of the swale will receive the treated and attenuated flows and these will discharge to local water bodies. The maximum outflow of the swales will be capped at greenfield runoff rates.

153 Following the implementation of these design features, no significant impacts are anticipated during the operation of the proposed Project.

154 In their submission, Cork County Council stated that the surface water impact assessment and proposed mitigation measures per EIAR are appropriate at XC209 Ballyhay, XC2111 Newtown, XC212 Ballycoskery and XC216 Shinanagh. For XC219 Buttevant, they required further detailed method statements to be included in the Final CEMP for the over-pumping during construction.

155 A flood risk assessment (FRA) was prepared in accordance with Section 28 of the Planning and Development Act 2000 and the Guidelines on the Planning System and Flood Risk Management, 2009. The assessment included desktop investigations into the potential flood risk sources and an assessment of the potential flood risk impacts to and from the proposed Project. A Stage 1 FRA only was carried out for XC187 Fantstown as no infrastructure is proposed at that site and XC201 Thomastown as it is at low risk of flooding and the drainage strategy uses sustainable drainage systems (SUDS) to manage surface water to ensure no net increase in runoff from existing rates. The remaining sites were taken through a Stage 2 flood risk assessment, the conclusions of which were

that in five of the sites, the drainage design would ensure that the proposed Project would not be at risk of flooding nor increase flood risk elsewhere.

156 Since the time of writing of the EIAR, Cork County Council Country Development Plan has been updated and a new plan adopted. In this plan, revisions have been made to flood zones and the Proposed Project is no longer in Flood Zone A or B.

157 At XC219 Buttevant, the proposed Project is in Flood Zone A and, given the local topography, it was determined that a Stage 3 Flood Risk Assessment was required; this would provide the information required to ensure the design of the over bridge would not impede flows and cause an increase in flood risk up or downstream. In addition, a justification test was required for this essential infrastructure within Flood Zone A. All criteria of the Justification Test set out in the Planning and Development Act 2000 and the Guidelines on the Planning System and Flood Risk Management, 2009 were met.

158 Information to support the Board's role in carrying out an assessment to determine whether the proposed Project would be compliant with the requirements with the Water Framework Directive is provided in Appendix 9B of the EIAR, the WFD Assessment Report. Taking into account the assessment in the Water Chapter of the EIAR that there would be no significant adverse effects on water bodies as a result of the proposed Project, it is considered that there would be no deterioration in status of the water bodies and nor would they be prevented from reaching their objectives as identified in the River Basin Management Plan process.

159 In addition, the issues raised in submissions and observations made to the Board on the application for development consent in relation to surface water are also addressed in the following documents: Non-Technical Summary, Chapter 9 of the EIAR, Appendix 9A FRA, Appendix 9B WFD Assessment and Appendix 1I CEMP.

Summary

160 In relation to the submissions and observations received, 13 submissions raised concerns about the potential impacts of the Proposed Project on the water environment.

161 By way of summary, I now set out the issues raised and the response on behalf of CIÉ:

Issue: Road drainage and Flood risk

162 Response: the Road Drainage Design will be in accordance with TII Publication Drainage Systems for National Roads DN-DNG-03022. This is the recognised standard for highway drainage design in Ireland. In keeping with NRA TB 13 – Revised Road Drainage Standards, over the edge drainage is proposed in the design for all locations, supplemented with additional features to accommodate the presence of structures or site constraints where necessary. New swales are proposed that will then drain back to the low points to maximise attenuation and pollution control as part of a SuDS management chain. The drainage design will ensure that the proposed Project will not be at risk of flooding nor increase flood risk elsewhere.

Issue: Water quality;

163 Response: Generic and bespoke control and mitigation measures are outlined in Chapter 9 Water in Volume 3 of the EIAR and in Appendix 1L CEMP In Volume 5 of the EIAR. Consultation with IFI and OPW are listed among the measures required for in-stream working. All water quality and bankside measures have been developed jointly with the biodiversity specialists. IFI have been consulted during the design of the proposed culverts and will continue to be engaged during detailed design and construction.

Issue: Hydromorphology:

164 Response: There is no direct crossing of the Awbeg River by the Proposed Project, only of a local field drain which connects to the water body. As a result there are no hydromorphological impacts on the Awbeg (East)_020. Hydrological impacts as a result of increased impermeable area have been addressed through the design of the drainage system which incorporates SUDS ensuring there will be nonet increase in runoff and no impacts on the hydrology of the Awbeg (East)_020.

165 In addition, all of these potential impacts were identified and assessed in the EIAR in Chapter 9 Water, Appendix 9A FRA and Appendix 9B WFD Assessment. Section 9.5 of the EIAR identifies and evaluates the likely significant construction and operation phase effects of the project on the Water environment. Potentially significant impacts were identified at some of the sites and mitigation measures identified to avoid or reduce these impacts. These are provided in Section 9.6 and in Appendix 1I CEMP.

166 In this Brief of Evidence, in response to the submissions received, Irish Rail's specialist, Heidi Sewnath, have considered the potential impacts again. Following this review, they have concluded that the impacts identified were appropriate and the measures identified in the CEMP will address the concerns raised by respondents.

167 No significant effects are anticipated following implementation of mitigation measures.

168 I now set in particularised format the issues raised and responses to same as summarised above.

4.2 Submissions/Objections Received and Responses

XC201

Submission:

169 Concerns have been raised by local landowners regarding the design, operation and maintenance of proposed drainage associated with the Proposed Project at XC201 Thomastown.

170 This issue has been raised by David Fleming.

Response:

171 The Road Drainage Design will be in accordance with TII Publication Drainage Systems for National Roads DN-DNG-03022. This is the recognised standard for highway drainage design in Ireland.

172 In keeping with NRA TB 13 – Revised Road Drainage Standards, over the edge drainage is proposed in the design for all locations, supplemented with additional features to accommodate the presence of structures or site constraints where necessary. New swales are proposed, located at the toe of the road embankment, that will then drain back to the low points to maximise attenuation and pollution control as part of a SuDS management chain.

173 The swales will discharge into local water bodies. The maximum outflow of the swales will be capped at greenfield runoff rates.

XC212

Submission

174 In a submission made in May 2022, following an additional public consultation for the Proposed Project, concerns were raised that the potential cumulative impacts with the proposed M20 have not been fully considered in the EIAR, in all assessments within Chapter 17, Cumulative Impacts.

175 This issue was raised by the Trustees of the Diocese of Cloyne and Ballyhea National School.

Response:

176 In the water assessment, it was concluded there would be no cumulative impacts during construction as it was anticipated that the Proposed Project would be completed before the construction of the M20 began. There is now a possibility that construction impacts may overlap, depending on the construction programmes for each development.

177 It is not anticipated that the construction of this scheme and the proposed M20 project will overlap and the water assessment for XC212 concluded that, with the implementation of mitigation measures outlined in the CEMP, there would be no significant impacts on nearby water bodies (Awbeg (East)_020). These measures are a combination of industry standard pollution control measures and bespoke measures for the specific site. Given TII's standards for road building and the requirements for contractors to meet all contractual duties including measures for construction environmental management on the M20, significant impacts on the Awbeg (East)_020 are not anticipated during the construction of the M20. As such, there will be no cumulative impacts.

178 In terms of operational impacts, there is no direct crossing of this water body by the Proposed Project, only of a local field drain which connects to the water body. As a result there are no hydromorphological impacts on the Awbeg (East)_020. Hydrological impacts as a result of increased impermeable area have been addressed through the design of the drainage system which incorporates SUDS ensuring there will be nonet increase in runoff and no impacts on the hydrology of the Awbeg (East)_020. Water quality impacts are addressed through the use of swales also, which afford a level of treatment which exceeds current standards via roadside gullies, reducing the level of routine road contaminants which will reach the Awbeg (East)_020. The design of the M20, which is still evolving and at option stage, will be required to incorporate similar control measures. As a result it is not anticipated there will be any cumulative impacts during operation.

Submission:

179 Concerns were raised by several respondents about the proposed translocation of the Hydrologous High Herb Appendix 1 Habitat (HHHH) [*Sic*] and that the proposed receptor area for the translocated HHHH does not currently contain any signs of the constituent flora for a number 6430 habitat. Contention that this absence indicates that the conditions necessary to support such a habitat are not existent in the proposed receptor area.

180 This issue was raised by David and Geraldine McNamara, Margaret McNamara, Michael O Kelly, Trustees of The Diocese of Cloyne-various reg lands, Noel Hanley.

Response:

181 These submissions are also addressed by Susie Coyle (biodiversity). Whilst the conditions necessary to support this species include groundwater as well as surface water (overland flows) attributes, it is

considered the surface water component has a more significant role. Design measures are therefore focused on surface water.

182 It is understood that the habitat is currently supported by overland flows of surface water to an area which is undisturbed by cattle on the top of the banks of the local field drain, proposed to be culverted for a short stretch. The proposed location for the translocation of the flora does not currently provide the correct conditions for it to have developed naturally, however under the proposals for the drainage system and design of the embankment for the Proposed Scheme, the conditions where it can grow can be recreated. Detailed site studies will be carried out to inform the detailed design of the swales and embankment to ensure exact same conditions as exist currently are replicated. It is likely that this will require the swale to end before it reaches the ditch and be placed into a pipe, thereby ensuring the area for the translocation remains wet and is not drained. The area will be fenced off and will not be part of the maintenance of the landscaped embankment.

183 In order to ensure the area continues to receive adequate overland flows from the field, the swale will be designed so that it only receives water from the road and the embankment (natural drainage) and not the field itself. Surface water flows will therefore continue to cross the field towards the existing drainage ditch and end at the translocation area in a similar fashion to the existing situation.

XC219

Submission:

184 Cork CC stated in their submission that the installation of the proposed culverts at XC219 Buttevant has the potential for significant impacts on water quality and geomorphology as a result of concrete washout and the disturbance of the riverbeds and banks.

185 Consultation with IFI is required in advance of any over-pumping of river, and the Final CEMP should provide a method statement for same, should the Planning Authority be minded to grant permission. The Applicant is required to consult with Office of Public Works with regard to whether a S50 Arterial Drainage Act 1945 applies.

Response:

186 Generic and bespoke control and mitigation measures are outlined in Chapter 9 Water in Volume 3 of the EIAR and in Appendix 1L CEMP In Volume 5 of the EIAR. Consultation with IFI and OPW are listed among the measures required for in-stream working. All water quality and bankside measures have been developed jointly with the biodiversity specialists. IFI have been consulted during the design of the proposed culverts and will continue to be engaged during detailed design and construction.

187 Specifically in relation to the over pumping, a detailed method statement for this will be included in the Final CEMP and this will include detail so the rate at which pumping will be carried out to avoid the remobilisation of sediments from the bed of the receiving water. If the Board requires for this to be finalised in consultation with IFI and OPW we are happy to do this.

Submission:

188 Concerns have also been raised with regards to roadside drainage.

189 This issue has been raised by Michael Kennedy and Deirdre Ryan

Response:

190 The Road Drainage Design will be in accordance with TII Publication Drainage Systems for National Roads DN-DNG-03022. This is the recognised standard for highway drainage design in Ireland.

191 In keeping with NRA TB 13 – Revised Road Drainage Standards, over the edge drainage is proposed in the design for all locations, supplemented with additional features to accommodate the presence of structures or site constraints where necessary. New swales are proposed, located at the toe of the road embankment, that will then drain back to the low points to maximise attenuation and pollution control as part of a SuDS management chain.

192 The swales will outfall directly or indirectly into local water bodies. The maximum outflow of the swales will be capped at greenfield runoff rates.

APPENDIX 1

- Volume 1: A Non-technical Summary
- Volume 2: Chapters 1 to 5 of the EIAR:
    - Chapter 1: Introduction
    - Chapter 2: Project Need and Alternatives
    - Chapter 3: Project Description
    - Chapter 4: EIA Method and Process
    - Chapter 5: Planning Policy
- Volume 3: Chapters 6 to 18:
    - Chapter 6: Population & Health
    - Chapter 7: Biodiversity
    - Chapter 8; Soils, Geology and Hydrogeology
    - Chapter 9: Surface Water
    - Chapter 10: Noise & Vibration
    - Chapter 11: Traffic & Transport
    - Chapter 12: Cultural Heritage
    - Chapter 13: Landscape & Visual Impacts
    - Chapter 14: Resource Use & Waste
    - Chapter 15: Air Quality
    - Chapter 16: Cross-cutting themes
    - Chapter 17: Cumulative Impacts and Interactions
    - Chapter 18: References
- Volume 4: EIAR Figures – a range of Figures 1 to 10F relating to relevant chapters
- Volume 5: Appendices – a variety of appendices are provided relating to each chapter of the EIAR.

193 In addition to the EIAR, a Stage 1 Screening for Appropriate Assessment has been carried out and is provided in Volume 5 of the EIAR, Appendix 7.

194 In addition, a Natura Impact Statement has been prepared which contains the information necessary for the Board to carry out a Stage 2 Appropriate Assessment of the proposed Project. This is provided in Volume 5 Appendices, Appendix 7

195 A Flood Risk Assessment has been caried out and is provided in Volume 5 Appendices, Appendix 9A.

196 An assessment of compliance with the requirements of the Water Framework Directive (WFD) is provided in Volume 5, Appendices, Appendix 9B.

APPENDIX 2 & BASIS FOR REASONED CONCLUSION

Table 1: Compliance with the Act and EIA Regulations

Section of the Act (amended)	Requirements under Section 39 of the Act	How and where this is addressed in the EIAR/EIA Process
39 (1) amended under Regulation 6(a) of SI743_2021	The applicant shall ensure that an environmental impact assessment report -	
New Section 39(1)(a)	Is prepared by competent experts	Volume 2 of 5 Chapter 4 sets out which organisation prepared the EIAR chapters. A full list of the experts employed is provided in this precis in Table 2.
New Section 39(1)(b)	Subject to subsection (3), contains -	
New Subsection 39(1)(b)(i)	a description of the proposed railway works comprising information on the site, design and size and other relevant features of the proposed works	Volume 2 of 5, Chapter 3 Project Description provides this description, which is supported by Figures in Volume 4 of the EIAR and Planning Drawings submitted.
New Subsection 39(1)(b)(ii)	a description of the likely significant effects of the proposed railway works on the environment	Volume 3 of 5 Chapters 6 to 16 Section: Residual Effects provide descriptions of the likely significant effects on the environment
New Subsection 39(1)(b)(iii)	the data required to identify and assess the main effects which the proposed railway works are likely to have on the environment	Volume 3 of 5 Chapters 6 to 16 Section: Baseline Environment: Desk Top Study Sources
New Subsection 39(1)(b)(iv)	a description of any features of the proposed railway works, and of any measures envisaged, to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment	Volume 3 of 5 Chapters 6 to 16 Section: Mitigation
New Subsection 39(1)(b)(v)	a description of the reasonable alternatives studied by the applicant which are relevant to the proposed railway works and their specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the railway works on the environment	Volume 2 of 5, Chapter 2 Project Need and Alternatives provides this description.
New Subsection 39(1)(b)(vi)	a summary in non-technical language of the above information	Volume 1 of 5, Non-Technical Summary provides this.

Section of the Act (amended)	Requirements under Section 39 of the Act	How and where this is addressed in the EIAR/EIA Process
New Section 39(1)(c)	takes into account the available results of other relevant assessments under European Union or national legislation with a view to avoiding duplication of assessments	Volume 3 of 5, Chapter 7 Biodiversity, takes into account the findings of the Appropriate Assessment carried out under the requirements of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) which are presented in Appendix 7H, Natura Impact Statement. Volume 5 of 5, Appendix 9B Water Framework Directive Assessment takes account of the findings in Volume 2 of 4, Chapters 7, Biodiversity and Chapter 9 Water.
New Subsection 39(2)	The applicant shall further ensure that an environmental impact assessment report, in addition to and by way of explanation or amplification of the specified information referred to in subsection (1), contains any additional information specified in Annex IV to the EIA Directive relevant to the specific characteristics of the particular railway works, or type of railway works, proposed and to the environmental features likely to be affected	In addition to the specified information in subsection (1), the following descriptions are provided in the EIAR: (a) Construction: Volume 3 of 5, Chapters 6 to 16 include an assessment of effects of the construction and where relevant demolition phase of the project; (b) Use of natural resources: Volume 3 of 5, Chapter 14 (Resource use & Waste Management); (c) Emission of pollutants: Volume 3 of 5, Chapter 10, Noise & Vibration; Chapter 13 Landscape & Visual (light); Chapter 15, Air Quality (dust nuisance); and Chapter 14, Resource Use and Waste Management. There are no heat or radiation emissions as a result of the Proposed Project. (d) Risks to human health from Major Accidents & Disasters: Volume 3 of 5, Chapter 6 Population & Human Health; Chapter 16 Cross-cutting Themes. (e) The impact of the project on climate: Volume 3 of 5, Chapter 16 Cross-cutting Themes
39 (2)(a)(i)	a description of the physical characteristics of the whole proposed railway works and the land-use requirements during the construction and operational phases	Volume 2 of 5, Chapter 3 Project Description provides this description
39 (2)(a)(ii)	an estimate, by type and quantity, of the expected residues and emissions (including water, air and soil pollution, noise, vibration, light, heat and radiation) resulting from the operation of the proposed railway works	Volume 3 of 5, Chapter 10, Noise & Vibration; Chapter 13 Landscape & Visual (light); Chapter 15, Air Quality (dust nuisance); and Chapter 14, Resource Use and Waste Management. There are no heat or radiation emissions as a result of the Proposed Project

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Section of the Act (amended)	Requirements under Section 39 of the Act	How and where this is addressed in the EIAR/EIA Process
39 (2)(b)	a description of the aspects of the environment likely to be significantly affected by the proposed railway works, including in particular—	
Regulation 3(b)(i) of SI743_2021	Population and Human health	Volume 3 of 5 Chapter 6 Population & Health, Section: Baseline provides this description
Regulation 3 (b)(ii) of SI743_2021	biodiversity, with particular attention to species and habitats protected under Council Directive 92/43/EEC of 21 May 19925 and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 20096,	Volume 3 of 5 Chapter 7 Biodiversity, Section: Baseline and Appendix 7H Natura Impact Statement provide this description
Regulation 3(b)(iii) of SI743_2021	Land, soil, water, air and climate	Volume 3 of 5: Chapter 8 Soils, Geology and Hydrogeology; Chapter 9 Water; Chapter 15 Air Quality; and Chapter 16 Cross-cutting Themes
Regulation 3 (B)(iv) of SI743_2021	material assets, cultural heritage and the landscape	Volume 3 of 5: Chapter 16 Material Assets; Chapter 12, Cultural Heritage; and Chapter 13 Landscape & Visual
Regulation 3 of SI743_2021	The interaction between the factors mentioned in 3(b) sub paragraphs (i) to (iv)	Volume 2 of 5, Chapter 17 Interactions and Cumulative Impacts
39 (2)(c)	a description of the likely significant effects (including direct, indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative) of the proposed railway works on the environment resulting from -	
39 (2)(c)(i)	the existence of the proposed railway works	Volume 3 of 5 Chapters 6 to 16 Section: Residual Effects provide descriptions of the likely significant effects on the environment
39 (2)(c)(ii)	the use of natural resources	Volume 3 of 5, Chapter 14, Resource Use and Waste Management
39 (2)(c)(iii)	the emission of pollutants, the creation of nuisances and the elimination of waste	Volume 3 of 5, Chapter 10, Noise & Vibration; Chapter 13 Landscape & Visual (light); Chapter 15, Air Quality (dust nuisance); and Chapter 14, Resource Use and Waste Management.
39 (2)(c)	a description of the forecasting methods used to assess the effects on the environment	Volume 2 of 4, Chapter 4 EIA Process and Method; Volume 3 of 5, Chapters 6 to 16 Section: Assessment Methodology provide this description.
39 (2)(d)	an indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information	Volume 3 of 5, Chapters 6 to 16 Section: Difficulties Encountered Compiling Information provides this description.
39 (2)(e)	a summary in non-technical language of the above information	Volume 1 of 5, Non-Technical Summary provides this.

Table 2: Competent Persons Carrying out the Assessment

Section	Description	Prepared by	Company	Qualification
Volume 1: Non-Technical Summary (NTS)				
NTS	Summary of the EIAR in non-technical language.	Heidi Sewnath	Jacobs	BSc MIEMA, CEnv
Volume 2: Introductory Chapters				
Chapter 1	Introduction	Rory McDonnell	Jacobs	BSc, MRUP, Chartered RTPI
Chapter 2	Project Need and Alternatives	Rory McDonnell/Heidi Sewnath/Irish Rail	Jacobs/Irish Rail	BSc, MRUP, Chartered RTPI/ BSc, CEnv
Chapter 3	Project Description	Rory McDonnell/Irish Rail	Jacobs/Irish Rail	BSc, MRUP, Chartered RTPI
Chapter 4	The Environmental Impact Assessment Process and Methodology	Heidi Sewnath	Jacobs	BSc, MIEMA, CEnv
Chapter 5	Plans, Policy & Guidance	Rory McDonnell	Jacobs	BSc, MRUP, Chartered RTPI
Volume 3: EIAR: Discipline Chapters				
Chapter 6	Population & Health	Heidi Sewnath	Jacobs	BSc, MIEMA, CEnv
Chapter 7	Biodiversity	Susie Coyle	Jacobs	PhD, MCIEEM MIFM MRSB CBiol
Chapter 8	Soils, Geology & Hydrogeology	Vanina Saint Martin	Jacobs	BSC, MSc, Fellow of Geological Society
Chapter 9	Water	Heidi Sewnath	Jacobs	BSc, DipWEM, MIEMA, CEnv
Chapter 10	Noise & Vibration	Chris Conroy	Jacobs	MSc, AMIOA
Chapter 11	Traffic & Transport	Colin Wylie	Jacobs	BEng, SoSRA
Chapter 12	Cultural Heritage	Bryn Coldrick	AMS Note: additional Geophysical and Test Trenching undertaken by ACSU Ltd.	BA, MA
Chapter 13	Landscape & Visual	Richard Barker	Macro Works	BA, MA, Corporate member of Irish Landscape Inst
Chapter 14	Resource Use & Waste Management	Heidi Sewnath	Jacobs	BSc, DipWEM, MIEMA, CEnv
Chapter 15	Air Quality	Steven Byrne	Jacobs	BSc, MSc, MIAQM
Chapter 16	Cross Cutting Themes	Heidi Sewnath	Jacobs	BSc, DipWEM, MIEMA, CEnv
Chapter 17	Interactions and Cumulative Impacts	Lyndsey McGonigle	Jacobs	MA, RTPI
Volume 5: Appendices & Schedules				
Appendix 7H	Natura Impact Statement	Susie Coyle	Jacobs	PhD, MCIEEM MIFM MRSB CBiol
Appendix 9B	Water Framework Directive Assessment	Heidi Sewnath	Jacobs	BSc, DipWEM, MIEMA, CEnv

197 Following submission of the Application for a Railway Order under the Transport (Railway Infrastructure) Act 2001in May 2021, the Applicant did not receive any Requests for Further Information from An Bord Pleanála nor were any points of clarification requested. On this basis it can reasonably be concluded that the Board considered it had sufficient information up to the point of receipt of submissions with respect to the Application, to make a reasoned conclusion on the likely significant effects of the proposed works on the environment.

198 The submission of Limerick County Council states:

'It is considered that the railway order application and the EIAR has provided a comprehensive assessment of the proposed development including predicted and cumulative impacts and has put forward mitigation measures as appropriate.'

199 In the submission of Cork County Council, the adequacy of the EIAR is commented upon by the Development Management Team, as follows:

200 *I am satisfied that the Report has been prepared by competent experts to ensure its completeness and quality, and that the information contained in the EIAR, and supplementary information provided by the applicants, adequately identifies and describes the direct and indirect effects of the proposed development on the environment and complies with article 94 of the Planning and Development Regulations 2000, as amended.*

201 *I am satisfied that given the nature of the proposed development, and the mitigation measures proposed, together with the low probability of a major accident / natural disaster, it is not likely that significant effects on the environment would arise in this regard, and that the reasoned conclusion is up to date at the time of making the decision.*

202 The EIAR and its associated appendices and drawings, includes all of the requirements set out in the Acts and EIA Regulations for the Board to make a reasoned conclusion as to the likely significant effects of the proposed works on the environment.

203 This conclusion is supported by the submissions of Limerick and Cork County Council planning departments and by the fact that there were no Requests for Further Information from the Board post submission.